Level 2 Award, Certificate and Diploma for Proficiency in Food Industry Skills (1283-20/21/22)

Qualification handbook for centres
1283-20 Award: 600/0971/8
1283-21 Certificate: 600/0972/X
1283-22 Diploma: 600/0970/6
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<td>382</td>
</tr>
<tr>
<td>Unit 277</td>
<td>Principles of food processing operations</td>
<td>384</td>
</tr>
<tr>
<td>Unit 279</td>
<td>Principles of sharpening, maintaining and selecting cutting tools in food operations</td>
<td>386</td>
</tr>
<tr>
<td>Unit 280</td>
<td>Principles of cans and closing cans in food manufacture</td>
<td>388</td>
</tr>
<tr>
<td>Unit 281</td>
<td>Principles of glass bottles and related closures in food manufacture</td>
<td>390</td>
</tr>
<tr>
<td>Unit 282</td>
<td>Principles of plastic bottles and related closures in food manufacture</td>
<td>392</td>
</tr>
<tr>
<td>Unit 283</td>
<td>Principles of HACCP based food safety systems</td>
<td>394</td>
</tr>
<tr>
<td>Unit 284</td>
<td>Principles of evaporation in food operations</td>
<td>396</td>
</tr>
<tr>
<td>Unit 285</td>
<td>Principles of valves and pumps in food manufacture</td>
<td>398</td>
</tr>
<tr>
<td>Unit 286</td>
<td>Principles of plate heat exchangers in food manufacture</td>
<td>400</td>
</tr>
<tr>
<td>Unit 287</td>
<td>Principles of working in explosion risk areas in food operations</td>
<td>402</td>
</tr>
<tr>
<td>Unit 288</td>
<td>Principles of instrumentation and control systems in food operations</td>
<td>404</td>
</tr>
<tr>
<td>Appendix 1</td>
<td>Sources of general information</td>
<td>406</td>
</tr>
</tbody>
</table>
1 Introduction to the qualifications

This document contains the information that centres need to offer the following qualifications:

<table>
<thead>
<tr>
<th>Qualification title and level</th>
<th>GLH</th>
<th>TQT</th>
<th>City &amp; Guilds qualification number</th>
<th>Qualification accreditation number</th>
<th>Registration and certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 2 Award for Proficiency in Food Industry Skills</td>
<td>29</td>
<td>100</td>
<td>1283-20</td>
<td>600/0971/8</td>
<td>Consult the Walled Garden/Online Catalogue for last dates</td>
</tr>
<tr>
<td>Level 2 Certificate for Proficiency in Food Industry Skills</td>
<td>77</td>
<td>270</td>
<td>1283-21</td>
<td>600/0972/X</td>
<td></td>
</tr>
<tr>
<td>Level 2 Diploma for Proficiency in Food Industry Skills</td>
<td>115</td>
<td>370</td>
<td>1283-22</td>
<td>600/0970/6</td>
<td></td>
</tr>
</tbody>
</table>

These qualifications are designed for learners who are working in a range of food operations roles, typically in automated production/processing companies. They offer learners the opportunity to develop skills and knowledge required to prove competence at work. They will also suit learners competent at core production/processing activities, looking to expand their existing skills, perhaps to support multi-skilling or to develop into a specialist area such as quality assurance or laboratory operations.

There is a Level 3 IPQs in Specialist Baking Industry Skills, (and Specialist Meat and Poultry Industry Skills is in development) and learners working in these areas should take the IPQ specific to their industry.

For the first time, the qualifications offer the food industry a unique mix of:

- occupational skills and knowledge units covering technical operations and management competencies, combined with
- the detailed knowledge units relevant to all roles.

The flexible choice of units, allows learners to select units that are most relevant to their own employment, learning and progression requirements. The choice of units also reflects the wide variety of jobs which people do in different types of companies in the industry.

The Common Operations units also offer learners the opportunity to take competencies which are generic to the whole food and drink industry, such as food safety, working with others and quality.

Learners may progress to Level 3 qualifications.
1.1 Qualification structure

The tables below indicate the rules of combination needed to achieve the Level 2 Award/Certificate/Diploma for Proficiency in Food Industry Skills.

Level 2 Award for Proficiency in Food Industry Skills (1283-20)

To achieve the full level 2 Award, learners must achieve a minimum of 10 credits, comprising of the following combination of credits from each of the two unit groups:

- Group A – a minimum of 8 credits.
- Group B – it is not mandatory to take any units from Group B but up to 4 credits can be achieved.

Any further credit achieved up to 12 credits will be recorded with all the units that have been achieved towards the qualification.

<table>
<thead>
<tr>
<th>Group</th>
<th>Group description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Production Control/Processing units</td>
<td>Mandatory 8-12</td>
</tr>
<tr>
<td></td>
<td>Food Sales and Service units</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Support Operations units</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Common Operations units</td>
<td>Optional 1-4</td>
</tr>
</tbody>
</table>

Level 2 Certificate for Proficiency in Food Industry Skills (1283-21)

To achieve the full level 2 Certificate, learners must achieve a minimum of 27 credits, comprising of the following combination of credits from each of the two unit groups:

- Group A – a minimum of 21 credits must be achieved from this group.
- Group B – it is not mandatory to take any units from Group B but up to 6 credits can be achieved.

Any further credit achieved up to 36 credits will be recorded with all the units that have been achieved towards the qualification.

<table>
<thead>
<tr>
<th>Group</th>
<th>Group description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Production Control/Processing units</td>
<td>Mandatory 21-36</td>
</tr>
<tr>
<td></td>
<td>Food Sales and Service units</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Support Operations units</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Common Operations units</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Food Operations Knowledge units</td>
<td>Optional 1-6</td>
</tr>
</tbody>
</table>
Level 2 Diploma for Proficiency in Food Industry Skills (1283-22)

To achieve the full level 2 Diploma, learners must achieve a minimum of 37 credits, comprising of the following combination of credits from each of the two unit groups:

- Group A – a minimum of 22 credits must be achieved from this group.
- Group B – a minimum of 7 credits must be achieved from this group.
- The remaining 8 credits can be achieved from Group A or Group B.

Any further credit achieved up to 67 credits will be recorded with all the units that have been achieved towards the qualification.

<table>
<thead>
<tr>
<th>Group</th>
<th>Group description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Production Control/Processing units</td>
<td>Mandatory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Food Sales and Service units</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Support Operations units</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Common Operations units</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Food Operations Knowledge units</td>
<td>Mandatory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7-15</td>
</tr>
</tbody>
</table>

Total Qualification Time

Total Qualification Time (TQT) is the total amount of time, in hours, expected to be spent by a Learner to achieve a qualification. It includes both guided learning hours (which are listed separately) and hours spent in preparation, study and assessment.

<table>
<thead>
<tr>
<th>Title and level</th>
<th>GLH</th>
<th>TQT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 2 Award for Proficiency in Food Industry Skills</td>
<td>29</td>
<td>100</td>
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<tr>
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</tr>
<tr>
<td>Level 2 Diploma for Proficiency in Food Industry Skills</td>
<td>115</td>
<td>370</td>
</tr>
</tbody>
</table>
2 Centre requirements

This section outlines the approval processes for centres to offer these qualifications and any resources that centres will need in place to offer the qualifications including qualification-specific requirements for centre staff.

There is no fast track approval provision for this qualification. Existing centres wishing to offer this qualification must use the standard qualification approval process.

2.1 Resource requirements

Physical resources and site agreements
It is acceptable for centres to use specially designated areas within a centre to assess. The equipment, systems and machinery must meet industrial standards and be capable of being used under normal working conditions.

Human resources
Staff delivering these qualifications must be able to demonstrate that they meet the following occupational expertise requirements. They should:

- be technically competent in the areas for which they are delivering training and/or have experience of providing training; this knowledge must be at least to the same level as the training being delivered
- hold the Level 2 Diploma for Proficiency in Food Industry Skills, or an equivalent qualification
- have recent relevant experience in the specific area they will be assessing
- be occupationally knowledgeable in the areas of food industry skills for which they are delivering training; this knowledge must be at least to the same level as the training being delivered
- have credible experience of providing training.

Centre staff may undertake more than one role, eg tutor and assessor or internal verifier, but must never internally verify their own assessments.

2.2 Assessors and internal verifiers

The following guidance is taken from Improve's Assessment Strategy for Proficiency Qualifications.

Occupational competence of assessors
The role of an assessor is a demanding and complex one, requiring a high degree of both interpersonal and organisational skills. They are required to make accurate and objective decisions as to whether the learner’s performance meets the assessment requirements laid out in units of assessment.

For assessments to be considered valid, the assessor must meet the following requirements. Any assessments carried out by personnel who do not meet these requirements will be deemed a contribution to workplace testimony.
Assessors are required to:

- provide current evidence of competence, knowledge and understanding in the areas to be assessed, to the satisfaction of the awarding organisation. This will normally be achieved through demonstrating competence in the roles which are to be assessed, which may be recorded in company training records. Alternatively, this can be demonstrated by relevant experience and continuing professional development which may include the achievement of qualifications relevant to the areas being assessed.
- demonstrate competent practice in workplace assessment methods. They do not need to hold the assessor unit qualification A1, but must demonstrate understanding of the principles and practices of the assessment process. This may in part be demonstrated for example, by the outcomes of formal training in assessment techniques for company based training systems or qualifications, or for auditing against quality criteria for an externally audited quality standard. Assessors with previous unit achievement of A1, D32 and/or D33 satisfy requirements, provided evidence of continuous professional development has updated workplace assessment practice. Recognition of assessors in this way is only valid between a centre and an awarding organisation in respect of specific qualifications, and is not transferable to other bodies or qualifications.
- demonstrate their continuing professional development to ensure they are up to date with work practices in their sector area of expertise and developments in the proficiency qualifications they assess.
- have a full and current understanding of the units of assessment and requirements of the qualifications being assessed.
- operate safely as an assessor in a food environment, therefore it is strongly recommended that a relevant food safety/hygiene qualification is achieved.

Assessors ‘in training’ who are not fully recognised as competent by awarding organisations may carry out assessment practice. For the period in training and working towards recognition, the assessor must have assessment activity monitored and signed off (countersigned) by a fully recognised and competent assessor. The ‘in training’ period should be limited to nine months and have clear development goals set for achieving recognition and competence.

**Occupational competence of internal verifiers**

Approved centres appoint internal verifiers and their role is to ensure consistency and quality of assessment within the centre. The internal verifier will monitor assessment activities and provide feedback to assessors, coordinate standardisation and provide guidance to assessors.

For assessments and verification to be considered valid, the internal verifier must meet the following requirements:

- Demonstrate sufficient and current understanding of the qualifications to be internally verified, and know how they are applied in the sector area(s) concerned, to the satisfaction of the Awarding organisation. Relevant knowledge and understanding of the workplace areas to be sampled during verification is required. Relevant experience of working in or with the sector area(s) is preferable.
- Demonstrate competent practice in internal verification and assessment. They do not need to hold the unit qualification V1 but must be able to understand the principles and practices of internal verification. This may in part be demonstrated for example, by the outcomes of formal training in assessment and verification techniques for company based training systems or qualifications, or for auditing against quality criteria for an externally audited quality standard. Verifiers with previous unit achievement of V1 or D34 satisfy requirements, provided evidence of continuous professional development has updated verification practice. Recognition of internal verifiers in this way is only valid between a centre and an awarding organisation in respect of specific qualifications, and is not transferable to other bodies or qualifications.
- Demonstrate their continuing professional development to ensure they are up to date with work practices in their sector and developments in the qualifications they verify.
• Know where and when to access specialist sector advice, where additional specialist or technical knowledge relating to assessment and verification decisions is concerned.
• Operate safely as an internal verifier in a food environment, therefore it is strongly recommended that a relevant food safety/hygiene qualification is achieved.

Internal verifiers ‘in training’ who are not fully recognised as competent by awarding organisations may carry out verification practice. For the period in training and working towards recognition, the assessor must have verification activity monitored and signed off (countersigned) by a fully recognised and competent internal verifier. The ‘in training’ period should be limited to nine months and have clear development goals set for achieving recognition and competence.

**Continuing Professional Development (CPD)**
Centres are expected to support their staff in ensuring that their knowledge remains current of the occupational area and of best practice in delivery, mentoring, training, assessment and verification, and that it takes account of any national or legislative developments.

### 2.3 Candidate entry requirements
Candidates should not be entered for a qualification of the same type, content and level as that of a qualification they already hold. There are no formal entry requirements for candidates undertaking these qualifications. However, centres must ensure that candidates have the potential and opportunity to gain the qualifications successfully.

**Age restrictions**
These qualifications are not approved for use by candidates under the age of 16, and City & Guilds cannot accept any registrations for candidates in this age group.

**Other legal considerations**
There are no legal considerations
3 Course design and delivery

3.1 Initial assessment and induction
Centres will need to make an initial assessment of each candidate prior to the start of their programme to ensure they are entered for an appropriate type and level of qualification.

The initial assessment should identify:
• Any specific training needs the candidate has, and the support and guidance they may require when working towards their qualifications. This is sometimes referred to as diagnostic testing.
• Any units the candidate has already completed, or credit they have accumulated which is relevant to the qualifications they are about to begin.

City & Guilds recommends that centres provide an induction programme to ensure the candidate fully understands the requirements of the qualifications they will work towards, their responsibilities as a candidate, and the responsibilities of the centre. It may be helpful to record the information on a learning contract.

3.2 Recommended delivery strategies
Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualifications before designing a course programme.

Centres may design course programmes of study in any way which:
• best meets the needs and capabilities of their candidates
• satisfies the requirements of the qualification(s).

When designing and delivering the course programme, centres might wish to incorporate other teaching and learning that is not assessed as part of the qualifications. This might include the following:
• literacy, language and/or numeracy
• personal learning and thinking
• personal and social development
• employability.

Where applicable, this could involve enabling the candidate to access relevant qualifications covering these skills.
4 Assessment

4.1 Summary of assessment methods
For these qualifications, candidates will be required to complete a portfolio of evidence for each unit.

Time constraints
All portfolio evidence must be completed and assessed within the candidate's period of registration. Centres should advise candidates of any internal timescales for the completion and marking of individual assignments.

4.2 Recording forms
Candidates and centres may decide to use a paper-based or electronic method of recording evidence.

City & Guilds endorses several ePortfolio systems, including our own, Learning Assistant, an easy-to-use and secure online tool to support and evidence learners' progress towards achieving qualifications. Further details are available at: www.cityandguilds.com/eportfolios

City & Guilds has developed a set of recording forms including examples of completed forms, for new and existing centres to use as appropriate. Amendable (MS Word) versions of the forms are available on the City & Guilds website.

Although it is expected that new centres will use these forms, centres may devise or customise alternative forms, which must be approved for use by the external verifier, before they are used by candidates and assessors at the centre.

4.3 Recognition of Prior Learning (RPL)
Evidence from past achievement may be included as evidence within assessment methods for these qualifications. Evidence of knowledge and understanding can be presented as supplementary evidence, provided it is a measurable assessed outcome of learning which links to outcomes detailed in the units of assessment and confirms current competence.

Assessors should make best use of all the assessment methods available to them in ensuring the most reliable and effective use is made of claims of prior learning and experience which relate to the individual learner's circumstances.

All learners, presenting evidence from past achievements, must also be able to demonstrate current competence.
## 5 Units

### Structure of units

The units in these qualifications are written in a standard format and comprise the following:

- City & Guilds unit number
- Title
- Level
- Credit value
- Unit Accreditation Number (UAN)
- Unit aim(s)
- Recommended Guided Learning Hours (GLH)
- Relationship to National Occupational Standards (NOS), other qualifications and frameworks
- Endorsement by a sector or other appropriate body
- Information on assessment
- Learning outcomes which are comprised of a number of assessment criteria

### Summary of units

#### Production Control/Processing

<table>
<thead>
<tr>
<th>City &amp; Guilds unit</th>
<th>Title</th>
<th>Unit number (UAN)</th>
<th>Credit value</th>
<th>GLH</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Contribute to optimising work areas in food manufacture</td>
<td>Y/602/5838</td>
<td>3</td>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td>002</td>
<td>Understand how to contribute to optimising work areas in food manufacture</td>
<td>D/602/5839</td>
<td>3</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>003</td>
<td>Start up multi stage operations in food manufacture</td>
<td>T/502/7490</td>
<td>2</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>004</td>
<td>Control milling in food manufacture</td>
<td>A/502/7491</td>
<td>3</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>127</td>
<td>Contribute to environmental safety in food operations</td>
<td>A/601/2919</td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>128</td>
<td>Understand how to contribute to environmental safety in food operations</td>
<td>M/601/2920</td>
<td>2</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>129</td>
<td>Contribute to the effectiveness of food retail operations</td>
<td>H/601/5247</td>
<td>2</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>130</td>
<td>Understand how to contribute to the effectiveness of food retail operations</td>
<td>K/601/5248</td>
<td>2</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>131</td>
<td>Plan and organise own work activities in food manufacture</td>
<td>A/502/7474</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>132</td>
<td>Understand how to plan and organise own work activities in food manufacture</td>
<td>L/502/7477</td>
<td>1</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>133</td>
<td>Contribute to the development of production specifications in food manufacture</td>
<td>F/601/2923</td>
<td>3</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>City &amp; Guilds unit</td>
<td>Title</td>
<td>Unit number (UAN)</td>
<td>Credit value</td>
<td>GLH</td>
<td>Level</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------------</td>
<td>--------------</td>
<td>-----</td>
<td>-------</td>
</tr>
<tr>
<td>134</td>
<td>Understand how to contribute to the development of product specifications in food manufacture</td>
<td>J/601/2924</td>
<td>2</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>135</td>
<td>Start up plant and equipment in food manufacture</td>
<td>Y/502/7465</td>
<td>2</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>136</td>
<td>Understand how to start up plant and equipment in food manufacture</td>
<td>D/502/7466</td>
<td>2</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>137</td>
<td>Shut down plant and equipment in food manufacture</td>
<td>H/502/7467</td>
<td>2</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>138</td>
<td>Understand how to shut down plant and equipment in food manufacture</td>
<td>M/502/7469</td>
<td>2</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>139</td>
<td>Understand how to start up multi-stage operations in food manufacture</td>
<td>K/502/7471</td>
<td>2</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>140</td>
<td>Shut down multi-stage operations in food manufacture</td>
<td>M/502/7472</td>
<td>2</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>141</td>
<td>Understand how to shut down multi-stage operations in food manufacture</td>
<td>F/502/7475</td>
<td>2</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>142</td>
<td>Report and record production operations in food manufacture</td>
<td>J/502/7476</td>
<td>2</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>143</td>
<td>Understand how to report and record production operations in food manufacture</td>
<td>M/502/7486</td>
<td>2</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>144</td>
<td>Carry out product changeovers in food manufacture</td>
<td>H/601/8309</td>
<td>2</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>145</td>
<td>Understand how to carry out product changeovers in food manufacture</td>
<td>Y/601/8310</td>
<td>2</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>146</td>
<td>Contribute to problem diagnosis in food manufacture</td>
<td>Y/601/2944</td>
<td>2</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>147</td>
<td>Understand how to contribute to problem diagnosis in food manufacture</td>
<td>D/601/2945</td>
<td>2</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>148</td>
<td>Contribute to problem resolution in food manufacture</td>
<td>H/601/2946</td>
<td>3</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>149</td>
<td>Understand how to contribute to problem resolution in food manufacture</td>
<td>K/601/2947</td>
<td>2</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>150</td>
<td>Operate central control systems in food manufacture</td>
<td>T/601/5172</td>
<td>2</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>151</td>
<td>Understand how to operate central control systems in food manufacture</td>
<td>A/601/5173</td>
<td>2</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>152</td>
<td>Control manual size reduction in food manufacture</td>
<td>K/502/7468</td>
<td>2</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>153</td>
<td>Understand how to control manual size reduction in food manufacture</td>
<td>H/502/7470</td>
<td>3</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>154</td>
<td>Control size reduction in food manufacture</td>
<td>M/602/1701</td>
<td>3</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>155</td>
<td>Control weighing in food manufacture</td>
<td>T/602/1702</td>
<td>2</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>156</td>
<td>Control mixing in food manufacture</td>
<td>A/602/1703</td>
<td>3</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>157</td>
<td>Control heat treatment in food manufacture</td>
<td>A/601/4606</td>
<td>3</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>158</td>
<td>Control separation in food manufacture</td>
<td>F/601/5174</td>
<td>3</td>
<td>20</td>
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## Support Operations Units

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<td>Understand how to monitor effluent treatment in food operations</td>
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<td>266</td>
<td>Understand how to contribute to continuous improvement for achieving excellence in food operations</td>
<td>Y/601/2930</td>
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<td>267</td>
<td>Clean in place (CIP) plant and equipment in food operations</td>
<td>K/601/8313</td>
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<td>268</td>
<td>Understand how to prepare for and conduct cleaning in place (CIP) of plant and equipment in food operations</td>
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<td>Understand how to avoid contamination and complete cleaning in place (CIP) of plant and equipment in food operations</td>
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<td>Carry out task hand-over procedures in food manufacture</td>
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<td>Principles of cleaning raw food materials</td>
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<td>011</td>
<td>Principles of sorting and grading produce and food material</td>
<td>A/602/4553</td>
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<td>Principles of bulk size reduction of produce and food materials</td>
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<td>013</td>
<td>Principles of freezing methods in food technology</td>
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<td>014</td>
<td>Principles of homogenisation in food technology</td>
<td>J/602/4555</td>
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<td>015</td>
<td>Principles of filtration in food technology</td>
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<td>Principles of centrifugation in food technology</td>
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<td>Principles of blanching in food technology</td>
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<td>Principles of plastic and cellulose films in food and drink</td>
<td>M/602/4565</td>
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<td>102</td>
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<td>Principles of sustainability in food operations</td>
<td>L/601/2701</td>
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<td>Principles of continuous improvement techniques (Kaizen) in food operations</td>
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<td>Principles of product quality and improvements in food operations</td>
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<td>Principles of packing and labelling food products in food operations</td>
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<td>Principles of clean in place (CIP) in food operations</td>
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<td>277</td>
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<td>Principles of sharpening, maintaining and selecting cutting tools in food operations</td>
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<td>Principles of cans and closing cans in food manufacture</td>
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<td>Principles of glass bottles and related closures in food manufacture</td>
<td>M/502/7438</td>
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<td>282</td>
<td>Principles of plastic bottles and related closures in food manufacture</td>
<td>K/502/7499</td>
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<td>Principles of HACCP based food safety systems</td>
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<td>284</td>
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<td>285</td>
<td>Principles of valves and pumps in food manufacture</td>
<td>H/601/5216</td>
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<td>286</td>
<td>Principles of plate heat exchangers in food manufacture</td>
<td>K/601/5217</td>
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<td>Principles of working in explosion risk areas in food operations</td>
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<td>288</td>
<td>Principles of instrumentation and control systems in food operations</td>
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Production Control/Processing units
Unit 001  Contribute to optimising work areas in food manufacture

Level: 3
Credit value: 3
UAN: Y/602/5838

Unit aim
This unit supports workforce development for those who contribute to optimising work areas in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Be able to control the preparation of the work area and equipment for use
2. Be able to monitor the use of work areas and equipment
3. Be able to control the use of work areas to meet production targets
4. Be able to control work completion procedures

Guided learning hours
It is recommended that 26 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.115S Contribute to optimising work areas in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, contributing to optimising work areas in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 001  Contribute to optimising work areas in food manufacture

Assessment criteria

Outcome 1  Be able to control the preparation of the work area and equipment for use

The learner can:
1.1 Access and interpret information and instructions for the use of the work area and equipment
1.2 Assess the impact of instructions on operations
1.3 Allocate duties and responsibilities to others according to their proven competence and availability
1.4 Inspect the work location, machinery and equipment to ensure they comply with statutory, environment and operational requirements
1.5 Check that services and utilities available in the work location meet operational requirements
1.6 Check that sufficient quantities of materials, machines and equipment are available for production.

Outcome 2  Be able to monitor the use of work areas and equipment

The learner can:
2.1 Evaluate reports received on the status of machinery and equipment after start-up
2.2 Identify the impact of machinery and equipment performance on operations
2.3 Record the contraventions of regulations and operational procedures, and make documentation available to relevant people
2.4 Report contraventions to the relevant people
2.5 Take corrective action within the limits of own authority.

Outcome 3  Be able to control the use of work areas to meet production targets

The learner can:
3.1 Access and interpret the production requirements to achieve the production targets and quality specifications
3.2 Clarify conflicting information with relevant people
3.3 Agree and implement production requirements with relevant people
3.4 Evaluate the individuals’ outputs against production targets and quality specifications
3.5 Organise work schedules to meet operational requirements, taking account of
   • rest periods
   • tedium of activity
   • individuals’ competence
3.6 Confirm with relevant people, that quality specifications, throughput targets and output are met
3.7 Identify problems affecting the quality of products and output targets
3.8 Take corrective actions within the limits of own authority.
Outcome 4  Be able to control work completion procedures

The learner can:

4.1 Minimise wastage of consumable items and other materials
4.2 Recycle re-usable materials according to operational and statutory requirements
4.3 Complete work in the allotted time and within operational constraints
4.4 Report work which cannot be completed in the allotted time to the relevant people
4.5 Complete documentation and make it available to the relevant people.
Unit 002  Understand how to contribute to optimising work areas in food manufacture

Level: 3  
Credit value: 3  
UAN: D/602/5839

Unit aim
This unit supports workforce development for those who contribute to optimising work areas in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know what the requirements of optimising work areas are
2. Know how to control work areas
3. Know how to monitor and maintain work areas

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.116K Understand how to contribute to optimising work areas in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to optimising work areas in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 002  Understand how to contribute to optimising work areas in food manufacture

Assessment criteria

Outcome 1  Know what the requirements of optimising work areas are
The learner can:
1.1 Describe the types of information and instructions needed to control the preparation of the work area
1.2 Explain how to access, interpret and evaluate information and instructions, and why this needs to be done
1.3 Describe how conflict can arise between sources of information and how to resolve it
1.4 Outline the reporting and recording procedures, explain how to complete documentation and describe who to make it available to
1.5 Explain why accurate and complete records are important and how to assess their impact
1.6 State why contravention of statutory regulations needs to be recorded and reported.

Outcome 2  Know how to control work areas
The learner can:
2.1 Outline why reports need to be received on the status of machinery after start-up
2.2 Explain how to check that production targets, output and quality specifications, throughput targets and why this needs to be done at regular intervals
2.3 Explain the effects of wastage on production and on the organisation and how to minimise it
2.4 Describe how to recycle re-usable materials and why they should be recycled
2.5 Explain the importance of understanding the competence and availability of others in the work area and describe to allocate roles and responsibilities
2.6 Describe how to deal with rest periods, tedium of activity and diversity of individual competence
2.7 Explain why individuals’ outputs should be evaluated against production targets and quality specifications and how to conduct the evaluation.

Outcome 3  Know how to monitor and maintain work areas
The learner can:
3.1 Explain how to inspect all aspects of the work area, and why it is important to carry out inspections
3.2 Describe reasons why faults and problems occur in work areas
3.3 Outline how to identify problems and why they this should be done as early as possible
3.4 Explain the importance of the range of corrective actions and procedures available, and to deal with problems
3.5 Outline why work needs to be completed in the allotted time, how this can be achieved
3.6 Explain why it is important to investigate and report work which cannot be achieved.
Unit 003 Start up multi-stage operations in food manufacture

Level: 3
Credit value: 2
UAN: T/502/7490

Unit aim
This unit supports workforce development for those who start up multi-stage operation in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to prepare to start up multi-stage operations
2. Be able to start up multi-stage operations

Guided learning hours
It is recommended that 9 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.121S Start up multi-stage operations in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, starting up multi-stage operations in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 003  
Start up multi-stage operations in food manufacture

Assessment criteria

**Outcome 1  Be able to prepare to start up multi-stage operations**
The learner can:

1.1 Evaluate the effectiveness of start-up procedures
1.2 Make recommendations for improvements to procedures to the relevant people
1.3 Establish and maintain communication with managers and colleagues
1.4 Ensure that all necessary plant, equipment, materials and services are available and fit for use.

**Outcome 2  Be able to start up multi-stage operations**
The learner can:

2.1 Ensure that required instrumentation is working to specifications and take relevant action in response to any faults
2.2 Ensure that plant is configured to achieve optimum performance
2.3 Ensure that start-up is in accordance with procedures and uses resources efficiently
2.4 Evaluate faults for impact on operations and take appropriate action within the limits of own authority
2.5 Complete necessary documentation and process it according to specified procedures.
Unit 004  Control milling in food manufacture

Level: 3  Credit value: 3  UAN: A/502/7491

Unit aim
This unit supports workforce development for those who control milling in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for milling according to specifications and standard operating procedures
2. Be able to control milling according to production specifications and standard operating procedures
3. Be able to finish milling according to specifications and standard operating procedures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.220S Control milling in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling milling in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 004  Control milling in food manufacture
Assessment criteria

Outcome 1 Be able to prepare for milling according to specifications and standard operating procedures
The learner can:
1.1 Check product specifications at the right time
1.2 Set up equipment
1.3 Make sure that material for milling is available and fit for use
1.4 Make sure that services meet requirements
1.5 Start up the plant and check that it is running to specification
1.6 Take action in response to operation problems
1.7 Maintain communication throughout the process.

Outcome 2 Be able to control milling according to production specifications and standard operating procedures
The learner can:
2.1 Use equipment and make sure that it is supplied with appropriate materials and services
2.2 Control resources to achieve required output
2.3 Make sure the product is transferred to the next stage in the manufacturing operation
2.4 Take action in response to operating problems within the limits of own responsibility
2.5 Maintain effective communication.

Outcome 3 Be able to finish milling according to specifications and standard operating procedures
The learner can:
3.1 Check the specifications to time shut-down accurately
3.2 Shut down plant
3.3 Take action to deal with items that can be recycled or re-worked
3.4 Dispose of waste
3.5 Make equipment ready for future use after completion of the process
3.6 Communicate with others
3.7 Complete all records and reports.
Unit 127  Contribute to environmental safety in food operations

Level: 2
Credit value: 2
UAN: A/601/2919

Unit aim
This unit supports workforce development for those who contribute to environmental safety in food manufacture, in a food business. The unit is designed for use primarily by Operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There is one learning outcome to this unit. The learner will:
1. Be able to contribute to workplace environmental safety

Guided learning hours
It is recommended that 5 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit HS.201S Contribute to environmental safety in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, contributing to environmental safety in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.
Unit 127  Contribute to environmental safety in food operations

Assessment criteria

Outcome 1  Be able to contribute to workplace environmental safety

The learner can:

1.1 Maintain environmentally safe working practices
1.2 Take precautions to minimise environmental damage
1.3 Identify any incidental damage and take action to minimise it
1.4 Report environmental incidents and actions taken in response of them to the relevant person
1.5 Follow procedures to dispose of waste materials safely
Unit 128  
Understand how to contribute to environmental safety in food operations

Level: 2
Credit value: 2
UAN: M/601/2920

Unit aim
This unit supports workforce development for those who need to understand how to contribute to environmental safety, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to comply with requirements
2. Know how to recognise environmental damage
3. Know how to work in a way that reduces environmental damage

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit HS.202K Understand how to contribute to environmental safety in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to environmental safety in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 128 Understand how to contribute to environmental safety in food operations

Assessment criteria

**Outcome 1** Know how to comply with requirements
The learner can:
1.1 Describe the reporting procedures for environmental incidents
1.2 Outline the organisational and legislative requirements relating to environmental damage.

**Outcome 2** Know how to recognise environmental damage
The learner can:
2.1 Describe the different types of environmental damage
2.2 Outline the types of damage that may occur
2.3 Explain the impact that damage can have on the environment, and what corrective actions can be taken.

**Outcome 3** Know how to work in a way that reduces environmental damage
The learner can:
3.1 Explain how to choose the most suitable materials and equipment, given the nature of the work activity, and its potential impact on the environment
3.2 Describe the different methods that can be used to minimise environmental damage
3.3 Describe how to dispose of waste in ways that minimise the risk to the environment.
Unit 129  Contribute to the effectiveness of food retail operations

Level: 2  
Credit value: 2  
UAN: H/601/5247

Unit aim
This unit supports workforce development for those who contribute to the effectiveness of food retail operations in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to organise own activities within food and drink retail operations
2. Be able to contribute to the improvement of food and drink retail operations

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.401S Contribute to the effectiveness of food retail operations.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, contributing to the effectiveness of food retail operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 129  Contribute to the effectiveness of food retail operations

Assessment criteria

Outcome 1  Be able to organise own activities within food and drink retail operations

The learner can:
1.1 Obtain correct instructions and specifications for own retail work schedule
1.2 Organise own work activity to make the best use of resources within operational requirements
1.3 Report any resource deficiencies to the relevant person
1.4 Check that own retail work schedule is realistic and achievable within the constraints of the workplace.

Outcome 2  Be able to contribute to the improvement of food and drink retail operations

The learner can:
2.1 Make a positive contribution to identifying opportunities to improve retail operations
2.2 Gather information about possible improvements
2.3 Suggest improvements which are required and realistic
2.4 Share ideas for improvements with the relevant people and react positively to feedback
2.5 Communicate own ideas in enough detail to allow further action to be agreed.
Unit 130  Understand how to contribute to the effectiveness of food retail operations

Level: 2  
Credit value: 2  
UAN: K/601/5248

Unit aim  
This unit supports workforce development for those who understand how to contribute to the effectiveness of food retail operations, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes  
There are two learning outcomes to this unit. The learner will:
1. Know how to organise work activities to optimise effectiveness  
2. Know how to contribute to the improvement of retail operations

Guided learning hours  
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.402K Understand how to contribute to the effectiveness of food retail operations.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to the effectiveness of food retail operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 130  
Understand how to contribute to the effectiveness of food retail operations

Assessment criteria

Outcome 1  
Know how to organise work activities to optimise effectiveness

The learner can:
1.1  Describe how and where to get relevant work instructions, schedules and specifications
1.2  Outline the importance of organising activities within a schedule to the best results
1.3  Describe how to organise work activities efficiently and alter these if there are changes in retail needs
1.4  Describe how to organise work activities so that products are always at their best when they are sold
1.5  State where and when to get help and advice
1.6  Outline the lines and methods and importance of effective communication.

Outcome 2  
Know how to contribute to the improvement of retail operations

The learner can:
2.1  Describe how, where and when to make helpful suggestions for possible improvements to retail operations
2.2  Explain why continuous improvement is necessary and the benefits arising from it
2.3  Describe how to identify the short and long term benefits from improvements.
Unit 131 Plan and organise own work activities in food manufacture

Level: 2
Credit value: 1
UAN: A/502/7474

Unit aim
This unit supports workforce development for those who plan and organise own work activities in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to plan and organise their own work activities
2. Be able to work effectively
3. Be able to communicate with others

Guided learning hours
It is recommended that 5 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PL.103S Plan and organise your own work activities in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, planning and organising own work activities in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 131  Plan and organise own work activities in food manufacture

Assessment criteria

Outcome 1  Be able to plan and organise their own work activities
The learner can:
1.1  Check understanding of own work objectives
1.2  Plan the actions needed to undertake work
1.3  Prioritise work activities
1.4  Check that the required resources are available
1.5  Check that the available resources are suitable
1.6  Take action if the required resources are unavailable or unsuitable.

Outcome 2  Be able to work effectively
The learner can:
2.1  Work in a way that is efficient, safe and makes use of available time
2.2  Use shared resources efficiently
2.3  Leave shared resources in a suitable state for others to use.

Outcome 3  Be able to communicate with others
The learner can:
3.1  Keep colleagues up to date on progress of work activity which may affect them
3.2  Make suggestions to the relevant person on ways to improve work activities
3.3  Inform the relevant person promptly about difficulties which prevent or delay meeting objectives.
Unit 132  Understand how to plan and organise your own work activities in food manufacture

Level: 2
Credit value: 1
UAN: L/502/7477

Unit aim
This unit supports workforce development for those who plan and organise own work activities in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to plan and organise work activities
2. Know how to work effectively
3. Know how to communicate with others in food manufacture

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PL.104K Understand how to plan and organise your own work activities in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when planning and organising own work activities in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 132  Understand how to plan and organise your own work activities in food manufacture

Assessment criteria

Outcome 1  Know how to plan and organise work activities
The learner can:

1.1 Describe their own responsibilities and when to ask for help
1.2 Describe the importance of asking the appropriate person for help when a problem is outside their responsibility
1.3 State the importance of having a clear plan of what to do before starting work
1.4 Describe how to plan, organise and prioritise work activities
1.5 State where information is stored in the workplace
1.6 State the importance of keeping records that are accurate, complete and up-to-date.

Outcome 2  Know how to work effectively
The learner can:

2.1 Describe how to read and interpret work instructions
2.2 State the importance of checking availability of resources required for food manufacture
2.3 Describe how to use shared resources efficiently
2.4 Describe how to deal with conflicting demands on their time.

Outcome 3  Know how to communicate with others in food manufacture
The learner can:

3.1 Identify different types of information to be communicated
3.2 State the importance of communicating relevant information to the appropriate person promptly
3.3 State the importance of communicating information clearly
3.4 Describe how to communicate with others in food manufacture.
Unit 133  Contribute to the development of production specifications in food manufacture

Level: 2  
Credit value: 3  
UAN: F/601/2923

Unit aim
This unit supports workforce development for those who contribute to developing production specifications in a food manufacturing business. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to contribute to identifying criteria for product specifications
2. Be able to contribute to the development of draft criteria
3. Be able to contribute to confirming a final specification

Guided learning hours
It is recommended that 25 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PM.112S Contribute to developing production specifications in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, when contributing to the development of production specifications in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 133  Contribute to the development of production specifications in food manufacture

Assessment criteria

Outcome 1  Be able to contribute to identifying criteria for product specifications

The learner can:
1.1 Take the opinions of relevant people into account when ascertaining the criteria required for the development of specifications
1.2 Assess the products and processes, relevant information and influencing factors to determine the validity of the identified criteria
1.3 Assess the validity of the proposed checking methods against the identified criteria.

Outcome 2  Be able to contribute to the development of draft criteria

The learner can:
2.1 Assemble the criteria into a consistent order in a draft specification and submit it to the relevant people for comment
2.2 Monitor the criteria used in specifications to check that they continue to be relevant to customer, product and process requirements
2.3 Take action to deal with any discrepancies in line with the limits of own authority.

Outcome 3  Be able to contribute to confirming a final specification

The learner can:
3.1 Agree which criteria will be incorporated into the final specification with relevant people
3.2 Submit the final specifications in a suitable manner and format for the approval of relevant people.
Unit 134  
Understand how to contribute to the development of product specifications in food manufacture

Level:  
2
Credit value:  
2
UAN:  
J/601/2924

Unit aim
This unit supports workforce development for those who need to understand how to contribute to the development of production specifications in a food business. The unit is designed for use primarily by Operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand how to identify and develop criteria
2. Understand the consultation process
3. Understand how to develop the specification

Guided learning hours
It is recommended that 14 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PM.114K Understand how to contribute to the development of product specifications in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to the development of production specifications in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 134  **Understand how to contribute to the development of product specifications in food manufacture**

Assessment criteria

**Outcome 1  Understand how to identify and develop criteria**
The learner can:
1.1 Describe what criteria are used to develop specifications
1.2 State what criteria is needed and how to develop them for inclusion in specifications
1.3 Explain how to assemble and assess criteria for inclusion for specifications.

**Outcome 2  Understand the consultation process**
The learner can:
2.1 Explain how to consult with others and obtain their opinions
2.2 Detail why it is important to consult others and state who to consult with about the development of specifications.

**Outcome 3  Understand how to develop the specification**
The learner can:
3.1 Describe the specification formats
3.2 Describe the processes and procedures for specification development
3.3 Describe how to draft and submit specifications for approval
3.4 State the relevant statutory regulations and operational requirements and how they affect specifications development.
Unit 135  Start up plant and equipment in food manufacture

Level: 2  
Credit value: 2  
UAN: Y/502/7465  

Unit aim  
This unit supports workforce development for those who start up plant and equipment in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes  
There are three learning outcomes to this unit. The learner will:  
1. Be able to prepare to start up plant and equipment  
2. Be able to start up plant and equipment  
3. Be able to evaluate the start-up of plant and equipment

Guided learning hours  
It is recommended that 13 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.107S Start up plant and equipment in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the skills of learners in the workplace, starting up plant and equipment in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 135  Start up plant and equipment in food manufacture

Assessment criteria

Outcome 1  Be able to prepare to start up plant and equipment
The learner can:
1.1 Make sure that all necessary plant, equipment, materials and services are available and fit for use
1.2 Ensure that instrumentation is working according to specifications
1.3 Take appropriate action in response to any identified faults.

Outcome 2  Be able to start up plant and equipment
The learner can:
2.1 Ensure that plant settings are set to achieve the best performance
2.2 Start up plant and equipment following specified procedures
2.3 Make sure that resources are used efficiently.

Outcome 3  Be able to evaluate the start-up of plant and equipment
The learner can:
3.1 Assess the usefulness of start-up procedures and suggest improvements to the relevant person
3.2 Analyse how faults affect operations and correct them within the limits of own authority
3.3 Complete documentation and process it according to specified procedures
3.4 Maintain communication with managers and colleagues.
Unit 136 Understand how to start up plant and equipment in food manufacture

Level: 2
Credit value: 2
UAN: D/502/7466

Unit aim
This unit supports workforce development for those who understand how to start up plant and equipment in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to start up plant and equipment in food manufacture
2. Know how to deal with problems arising during the start-up of plant and equipment

Guided learning hours
It is recommended that 9 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.108K Understand how to start up plant and equipment in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when starting up plant and equipment in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 136  Understand how to start up plant and equipment in food manufacture

Assessment criteria

**Outcome 1  Know how to start up plant and equipment in food manufacture**

The learner can:

1.1  Explain how the start up process works
1.2  Describe the specified procedures for start-up and the importance of following them
1.3  Outline how to access and interpret the relevant plant, process, equipment and materials specifications
1.4  Explain the lines and methods of communication and importance of using them
1.5  Explain what paperwork has to be completed and why it is important to do this
1.6  Outline the limits of own authority and competence and the importance of working within them.

**Outcome 2  Know how to deal with problems arising during the start-up of plant and equipment**

The learner can:

2.1  Explain methods for diagnosing and solving problems
2.2  Describe the main types of equipment breakdowns
2.3  Explain how faults can impact on operations.
Unit 137    Shut down plant and equipment in food manufacture

Level:    2
Credit value:    2
UAN:    H/502/7467

Unit aim
This unit supports workforce development for those who shut down plant and equipment in food manufacture in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to implement shut-down procedures
2. Be able to complete the shut-down of plant and equipment

Guided learning hours
It is recommended that 6 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.109S Shut down plant and equipment in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, shutting down plant and equipment in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 137  Shut down plant and equipment in food manufacture

Assessment criteria

Outcome 1  Be able to implement shut-down procedures
The learner can:
1.1 Ensure that plant shut-down times and durations optimise efficiency
1.2 Shut down plant, equipment and associated services in line with procedures
1.3 Deal with residual materials in a manner which enables their re-use.

Outcome 2  Be able to complete the shut-down of plant and equipment
The learner can:
2.1 Ensure that plant and equipment are safe, secure and fit for purpose so that operations can continue when necessary
2.2 Evaluate effectiveness of shut-down procedures.
2.3 Make any recommendations for improvements to the relevant people
2.4 Complete the documentation accurately and clearly and process it according to specified procedures
2.5 Maintain communication with managers and colleagues.
Unit 138  
**Understand how to shut down plant and equipment in food manufacture**

**Level:** 2  
**Credit value:** 2  
**UAN:** M/502/7469

**Unit aim**  
This unit supports workforce development for those who understand how to shut down plant and equipment in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

**Learning outcomes**  
There are two learning outcomes to this unit. The learner will:
1. Know how to implement shut down procedures  
2. Know how to complete plant and equipment shut down

**Guided learning hours**  
It is recommended that 8 hours should be allocated for this unit, although patterns of delivery are likely to vary.

**Details of the relationship between the unit and relevant national standards**  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.110K Understand how to shut down plant and equipment in food manufacture.

**Support of the unit by a sector or other appropriate body**  
This unit is endorsed by Improve.

**Assessment**  
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when shutting down plant and equipment in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 138  Understand how to shut down plant and equipment in food manufacture

Assessment criteria

Outcome 1  Know how to implement shut down procedures
The learner can:
1.1 Explain the limits of their authority and competence and the importance of working within them
1.2 Explain the procedures for shut-down and importance of following them.

Outcome 2  Know how to complete plant and equipment shut down
The learner can:
2.1 Explain what happens after shut-down and how own actions affect this
2.2 Outline the procedures for dealing with residual materials and why it is important to follow them
2.3 Explain the documentation requirements and importance of meeting them
2.4 Outline the lines and methods of effective communication and importance of using them.
Unit 139  Understand how to start up multi-stage operations in food manufacture

Level: 3
Credit value: 2
UAN: K/502/7471

Unit aim
This unit supports workforce development for those who understand how to start up multi-stage operations in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to start up multi-stage operations
2. Know how to deal with problems arising during the start-up of operations

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.122K Understand how to start up multi-stage operations in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when starting up multi-stage operations in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 139  Understand how to start up multi-stage operations in food manufacture

Assessment criteria

Outcome 1  Know how to start up multi-stage operations
The learner can:
  1.1 Explain how the start up process works
  1.2 Describe the procedures for start-up and explain why it is important to follow them
  1.3 Explain how to access and interpret the relevant plant, process, equipment and materials specifications
  1.4 Explain the lines and methods of communication and importance of using them
  1.5 Explain the documentation requirements why it is important to meet them
  1.6 Outline limits of own authority and competence and why it is important to work within them.

Outcome 2  Know how to deal with problems arising during the start-up of operations
The learner can:
  2.1 Describe the main types of equipment malfunction
  2.2 Explain how to use problem-solving and diagnostic techniques and the importance of this
  2.3 Explain how faults can impact on operations.
Unit 140  Shut down multi-stage operations in food manufacture

Level: 3  Credit value: 2  UAN: M/502/7472

Unit aim
This unit supports workforce development for those who shut down multi-stage operations in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to prepare to shut down multi-stage operations
2. Be able to shut down multi-stage operations

Guided learning hours
It is recommended that 9 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.123S Shut down multi-stage operations in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, shutting down multi-stage operations in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 140  
Shut down multi-stage operations in food manufacture

Assessment criteria

Outcome 1  
Be able to prepare to shut down multi-stage operations
The learner can:
1.1  Maintain communication with managers and colleagues
1.2  Ensure that plant shut-down times and durations optimise efficiency
1.3  Ensure that the plant is shut down efficiently.

Outcome 2  
Be able to shut down multi-stage operations
The learner can:
2.1  Shut down designated plant, equipment and associated services in accordance with procedures
2.2  Deal with residual materials in a manner which optimises their future use
2.3  Ensure that plant and equipment are safe, secure and fit for purpose so that operations can continue when necessary
2.4  Evaluate the effectiveness of shut-down procedures for effectiveness
2.5  Make recommendations for improvements to procedures to relevant people
2.6  Complete documentation and process it according to specified procedures.
Unit 141  Understand how to shut down multi-stage operations in food manufacture

Level: 3  Credit value: 2  UAN: F/502/7475

Unit aim
This unit supports workforce development for those who understand how to shut down multi-stage operations in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There is one learning outcome to this unit. The learner will:
1. Know how to shut down multi-stage operations in food manufacture

Guided learning hours
It is recommended that 9 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.124K Understand how to shut down multi-stage operations in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when shutting down multi-stage operations in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 141  Understand how to shut down multi-stage operations in food manufacture

Assessment criteria

Outcome 1  Know how to shut down multi-stage operations in food manufacture

The learner can:

1.1 Outline the limits of own authority and competence and why it is important to work within them

1.2 Explain why it is important to use the lines and methods of communication available

1.3 Outline the importance of meeting documentation requirements

1.4 Outline the procedures for dealing with residual materials and the importance of following them

1.5 Describe what happens after shut-down and how this influences actions

1.6 Explain the procedures for shut-down and the importance of following them.
Unit 142  Report and record production operations in food manufacture

Level: 2  
Credit value: 2  
UAN: J/502/7476

Unit aim
This unit supports workforce development for those who report and record production operations in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to record operational activities
2. Be able to report on operational activities

Guided learning hours
It is recommended that 13 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.105S Report and record production operations in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, reporting and recording production operations in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 142 Report and record production operations in food manufacture

Assessment criteria

**Outcome 1  Be able to record operational activities**

The learner can:

1.1 Identify information and data that need to be reported
1.2 Identify the appropriate method of recording information and data
1.3 Record information and data collected
1.4 Complete records within defined timescales
1.5 Follow company procedures to process and store records.

**Outcome 2  Be able to report on operational activities**

The learner can:

2.1 Identify information and events that need to be reported
2.2 Report information and events to the appropriate person or people
2.3 Make verbal reports of information and events
2.4 Make written reports of information and events
2.5 Check that reporting of information and events is to the point and accurate.
Unit 143  Understand how to report and record production operations in food manufacture

Level:  2
Credit value:  2
UAN:  M/502/7486

Unit aim
This unit supports workforce development for those who understand how to report and record production operations, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to report production operations
2. Know how to record production operations

Guided learning hours
It is recommended that 13 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.106K Understand how to report and record production operations in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when reporting and recording production operations in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 143  Understand how to report and record production operations in food manufacture

Assessment criteria

Outcome 1  Know how to report production operations
The learner can:
1.1 Identify situations, events, problems and information that need reporting
1.2 Explain the importance of:
   • working with others to obtain information
   • establishing facts before reporting
   • reporting clearly, concisely, accurately and promptly
   • including adequate detail in reports
1.3 List the key people to whom reports should be made
1.4 Outline the key principles of verbal, written and electronic reporting.

Outcome 2  Know how to record production operations
The learner can:
2.1 List the key types of information and data that need to be recorded
2.2 Describe different methods of recording information and data
2.3 Explain the importance of recording information and data methodically
2.4 Describe the potential consequences of errors in records
2.5 Explain the importance of records for maintaining traceability and quality assurance
2.6 Outline the concept of due diligence including legal defence.
Unit 144  Carry out product changeovers in food manufacture

Level: 2  
Credit value: 2  
UAN: H/601/8309

Unit aim
This unit supports workforce development for those who carry out product changeovers in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for changeovers in a way that minimises down-time and waste
2. Be able to carry out changeovers
3. Be able to complete changeovers

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.113S Carry out product changeovers in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, carrying out product changeovers in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 144  Carry out product changeovers in food manufacture

Assessment criteria

Outcome 1  Be able to prepare for changeovers in a way that minimises down-time and waste

The learner can:
1.1 Obtain the information and any required authorisation before changeover begins
1.2 Alert those who need to be involved, maintaining communication throughout the changeover process
1.3 Assemble required resources in the appropriate place and make sure they meet specifications
1.4 Remove resources from the previous run which are not needed
1.5 Ensure plant surfaces that are in contact with ingredients and product are clean.

Outcome 2  Be able to carry out changeovers

The learner can:
2.1 Adjust plant and equipment to conform to specification without affecting any other part of the plant
2.2 Maintain communication where required.

Outcome 3  Be able to complete changeovers

The learner can:
3.1 Complete the changeover within the specified time
3.2 Inform those who need to know that changeover is complete
3.3 Take appropriate action when change parts are removed
3.4 Report the condition of worn or damaged parts to the relevant person
3.5 Ensure that, following changeover, output matches specification and is produced at the required rate
3.6 Complete all records.
Unit 145  Understand how to carry out product changeovers in food manufacture

Level: 2
Credit value: 2
UAN: Y/601/8310

Unit aim
This unit supports workforce development for those who understand how to carry out product changeovers, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know about the requirements for carrying out product changeovers
2. Know how to carry out product changeovers
3. Know how to deal with problems during changeovers

Guided learning hours
It is recommended that 16 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.114K Understand how to carry out product changeovers in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when carrying out product changeovers in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 145  Understand how to carry out product changeovers in food manufacture

Assessment criteria

Outcome 1  Know about the requirements for carrying out product changeovers

The learner can:
1.1 State why the changeover is taking place
1.2 State the time allowed for changeovers
1.3 State the limits of own authority, and the importance of working within them
1.4 Outline the procedures for authorisation to work, isolation of equipment and services and what may happen if they are not followed
1.5 Describe how to communicate and record information to meet specifications and the importance of doing so
1.6 State how to obtain and interpret specifications
1.7 Describe what may happen if specifications are not interpreted correctly.

Outcome 2  Know how to carry out product changeovers

The learner can:
2.1 State the functions and use of machine parts, tools and safety equipment needed for changeovers
2.2 State the key materials and resources are required and how to check their suitability for use
2.3 State the effect critical control settings have on quality and production volumes
2.4 State why it is important to notify the relevant person that a changeover has been completed and what may happen if this is not done
2.5 State the importance of keeping accurate and prompt records.

Outcome 3  Know how to deal with problems during changeovers

The learner can:
3.1 Outline difficulties and problems that might arise during changeovers and the action to be taken in each case
3.2 Explain why cleaning is important and what may happen if this is not done when required
3.3 Outline the appropriate action to take when change parts are removed and describe what may happen if this is not done
3.4 Describe how to recognise wear and tear on change parts.
Unit 146  Contribute to problem diagnosis in food manufacture

Level:  2
Credit value:  2
UAN:  Y/601/2944

Unit aim
This unit supports workforce development for those who contribute to problem resolution in a food business. The unit is designed for use primarily by operatives or team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to contribute to identifying problems
2. Be able to contribute to problem diagnosis
3. Be able to contribute to reporting problems

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, contributing to problem diagnosis in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 146  Contribute to problem diagnosis in food manufacture

Assessment criteria

**Outcome 1  Be able to contribute to identifying problems**
The learner can:
1.1 Identify variations to normal operating conditions
1.2 Contribute to the assessment of the impact of these problems
1.3 Take the appropriate action to make sure you and your colleagues remain safe.

**Outcome 2  Be able to contribute to problem diagnosis**
The learner can:
2.1 Contribute to determining the nature, cause and the effect of the problems
2.2 Contribute to investigating the problems in a safe and cost-effective manner, with minimum delay or wastage.

**Outcome 3  Be able to contribute to reporting problems**
The learner can:
3.1 Communicate problems to the appropriate person
3.2 Complete and process all records of problems.
Unit 147 Understand how to contribute to problem diagnosis in food manufacture

Level: 2
Credit value: 2
UAN: D/601/2945

Unit aim
This unit supports workforce development for those who need to understand how to contribute to problem diagnosis in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to contribute to identifying problems in your area of work
2. Know how to contribute to analysing and reporting problems within your work area

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.126K Understand how to contribute to problem diagnosis in a food environment.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to problem diagnosis in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 147 Understand how to contribute to problem diagnosis in food manufacture

Assessment criteria

Outcome 1  Know how to contribute to identifying problems in your area of work

The learner can:
1.1 Outline the importance of contributing to problem solving is important
1.2 Detail how to recognise differences from specification
1.3 Outline the relevant operating procedures
1.4 Detail operating problems and their possible effect on other operations
1.5 State how to help investigate problems in a safe and cost-effective manner and why it is important to do so
1.6 State how to assist the team or individual define and verify the root cause of a problem.

Outcome 2  Know how to contribute to analysing and reporting problems within your work area

The learner can:
2.1 State how to use any relevant tools and test equipment
2.2 Detail different methods can be used to gather evidence about problems
2.3 Outline how to help analyse problems to determine their nature, cause and effects
2.4 Detail lines and methods of effective communication and why it is important to use them
2.5 State documentation requirements and why it is important to meet them.
Unit 148  Contribute to problem resolution in food manufacture

Level: 2
Credit value: 3
UAN: H/601/2946

Unit aim
This unit supports workforce development for those who contribute to problem resolution in a food business. The unit is designed for use primarily by operatives or team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to contribute to identifying the causes of problems
2. Be able to contribute to implementing solutions to problems
3. Be able to contribute to reporting on action to be taken to resolve problems

Guided learning hours
It is recommended that 13 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.127S Contribute to problem resolution in a food environment.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, contributing to problem resolution in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 148  Contribute to problem resolution in food manufacture

Assessment criteria

Outcome 1  Be able to contribute to identifying the causes of problems
The learner can:
1.1 Check and follow legal or regulatory requirements, hygiene, health and safety and environmental standards
1.2 Check the available information and clarify or seek further information.

Outcome 2  Be able to contribute to implementing solutions to problems
The learner can:
2.1 Contribute to selecting solutions which are effective in relation to operational requirements
2.2 Help to ensure that the corrective actions determined meet with organisational requirements
2.3 Contribute to putting into action the chosen solution to restore operating conditions safely and effectively
2.4 Monitor operations to ensure that correct operating conditions are met and maintained
2.5 Communicate the results of own actions to the appropriate person.

Outcome 3  Be able to contribute to reporting on action to be taken to resolve problems
The learner can:
3.1 Contribute to the identification of needs for further work and report this to the relevant person in sufficient detail for action to be taken
3.2 Make suggestions for avoiding the problem happening again and ways to improve operations to managers and colleagues
3.3 Complete all records accurately and clearly, and process it promptly.
Unit 149

Understand how to contribute to problem resolution in food manufacture

Level: 2
Credit value: 2
UAN: K/601/2947

Unit aim
This unit supports workforce development for those who need to understand how to contribute to problem resolution in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to contribute to problems in your area of work and how to communicate to colleagues
2. Know how to contribute to identifying resolutions to problems

Guided learning hours
It is recommended that 18 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.128K Understand how to contribute to problem resolution in a food environment.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to problem resolution in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 149 Understand how to contribute to problem resolution in food manufacture

Assessment criteria

Outcome 1 Know how to contribute to problems in your area of work and how to communicate to colleagues

The learner can:
1.1 State operating problems and their possible effect on other operations
1.2 Detail the operating procedures
1.3 State why it is important to record and communicate problems
1.4 Detail the lines and methods of effective communication and why it is important to use them.

Outcome 2 Know how to contribute to identifying resolutions to problems

The learner can:
2.1 Outline factors to take into consideration when contributing to selecting solutions
2.2 State how to help:
   • recognise both temporary and permanent solutions, deciding which should be used
   • assess the impact of solutions on other operations
   • analyse problems in a systematic way
   • overcome problems and restore operations in an effective way
2.3 State how to monitor product integrity when overcoming problems and how they have been overcome
2.4 State how to evaluate the effectiveness of the solutions implemented.
Unit 150  Operate central control systems in food manufacture

Level: 2  Credit value: 2  UAN: T/601/5172

Unit aim
This unit supports workforce development for those who operate central control systems in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to use central control systems
2. Be able to overcome problems using control systems

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.201S Operate central control systems in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, operating central control systems in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 150  Operate central control systems in food manufacture

Assessment criteria

Outcome 1  Be able to use central control systems
The learner can:
1.1  Log on, if required, at the specified time
1.2  Monitor the process at the required frequency
1.3  Respond to alarms and take appropriate action within the limits of own responsibility
1.4  Operate necessary control sequences according to procedures
1.5  Complete records.

Outcome 2  Be able to overcome problems using control systems
The learner can:
2.1  Make alterations to control parameters, auto/manual selection and sequencing as required
2.2  Take corrective action within the limits of own authority when problems or possible future problems are identified
2.3  Inform key people of any corrective action and its effects
2.4  Complete records of problems resolved
2.5  Maintain effective communications.
Unit 151  Understand how to operate central control systems in food manufacture

Level: 2  
Credit value: 2  
UAN: A/601/5173

Unit aim
This unit supports workforce development for those who understand how to operate central control systems, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Understand the functions of central control systems
2. Know how to avoid potential problems in the central control system

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.202K Understand how to operate central control systems in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when operating central control systems in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 151  Understand how to operate central control systems in food manufacture

Assessment criteria

Outcome 1  Understand the functions of central control systems
The learner can:
1.1 Describe the plant and equipment layout
1.2 Outline the process equipment sequences and what may happen if controls are not sequenced properly
1.3 Describe the effect of plant, equipment, services or control systems not performing to specification and the remedial action to be taken
1.4 State how to respond to alarms in the system.

Outcome 2  Know how to avoid potential problems in the central control system
The learner can:
2.1 Describe what could happen if the process is not monitored at the required frequency
2.2 Describe what may happen if recognised procedures are not followed when sequencing necessary controls
2.3 Outline the limits of own authority and competence and importance of working within them
2.4 Explain how to meet recording, reporting and communication requirements and the importance of doing so.
Unit 152  
Control manual size reduction in food manufacture

Level: 2  
Credit value: 2  
UAN: K/502/7468

Unit aim  
This unit supports workforce development for those who control manual size reduction in a food manufacturing business. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes  
There are three learning outcomes to this unit. The learner will:  
1. Be able to prepare for manual size reduction  
2. Be able to carry out manual size reduction  
3. Be able to finish manual size reduction

Guided learning hours  
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.203S Control manual size reduction in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the skills of learners in the workplace when controlling manual size reduction in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 152  Control manual size reduction in food manufacture

Assessment criteria

Outcome 1    Be able to prepare for manual size reduction
The learner can:
1.1  Check product specifications at the specified time
1.2  Make sure that the material for size reduction is available and fit for use
1.3  Take action in response to operating problems
1.4  Maintain communication throughout the process.

Outcome 2    Be able to carry out manual size reduction
The learner can:
2.1  Handle and store materials and products in a manner which maintains quality
2.2  Achieve the output to the required specification
2.3  Make sure the product is transferred to the next stage in the manufacturing operation
2.4  Take action in response to operating problems.

Outcome 3    Be able to finish manual size reduction
The learner can:
3.1  Deal with materials that can be recycled or re-worked according to specified procedures
3.2  Dispose of waste according to specified procedures
3.3  Make equipment and the immediate work area ready for future use after completion of the process
3.4  Complete all records.
Unit 153  Understand how to control manual size reduction in food manufacture

Level: 2
Credit value: 3
UAN: H/502/7470

Unit aim
This unit supports workforce development for those who control manual size reduction in a food manufacturing business. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to prepare to control manual size reduction
2. Know how to control manual size reduction
3. Know how to complete manual size reduction

Guided learning hours
It is recommended that 17 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.203S Control manual size reduction in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling manual size reduction in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 153  Understand how to control manual size reduction in food manufacture

Assessment criteria

Outcome 1  Know how to prepare to control manual size reduction
The learner can:
1.1 Describe what equipment and materials to use and in what quantity
1.2 Outline how to obtain and interpret the relevant process specification
1.3 Outline how to establish fitness for use of material and how to deal with material which is not fit for use
1.4 State why it is important to work within limits of own authority and competence
1.5 Describe how to carry out and the importance of recording, reporting and communicating.

Outcome 2  Know how to control manual size reduction
The learner can:
2.1 Describe how to carry out the process in an efficient manner, and the importance of this
2.2 Describe what operating problems are associated with size reduction and the appropriate response to make
2.3 Outline what might happen if material was used which was not fit for use
2.4 Describe how and when to seek assistance
2.5 Describe the action to take when the process specification is not met
2.6 Outline how to follow work instructions, and the importance of doing so.

Outcome 3  Know how to complete manual size reduction
The learner can:
3.1 Describe how to deal with items that can be recycled or re-worked
3.2 Describe how to dispose of waste, and the importance of this
3.3 Outline how to make equipment ready for future use.
Unit 154  Control size reduction in food manufacture

Level: 2
Credit value: 3
UAN: M/602/1701

Unit aim
This unit supports workforce development for those who control size reduction in a food manufacturing business. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for size reduction
2. Be able to carry out size reduction
3. Be able to finish size reduction

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.205S Control size reduction in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace when controlling size reduction in food manufacture. It needs to be assessed on the job.

The learner must be able to demonstrate their competent performance consistently over a period of time to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 154  Control size reduction in food manufacture

Assessment criteria

Outcome 1  Be able to prepare for size reduction
The learner can:
1.1 Check product specifications at the specified time
1.2 Make sure that material for size reduction is available and fit for use
1.3 Make sure that services meet requirements
1.4 Start up the plant and equipment according to specified procedures so that it runs to specification
1.5 Take action in response to operating problems
1.6 Maintain communication throughout the process.

Outcome 2  Be able to carry out size reduction
The learner can:
2.1 Use equipment according to specified procedures
2.2 Make sure that equipment is supplied with materials and services as required
2.3 Achieve output to the required specification
2.4 Make sure the product is transferred to the next stage in the manufacturing operation according to specified procedures
2.5 Take action in response to operating problems within the limits of own responsibility.

Outcome 3  Be able to finish size reduction
The learner can:
3.1 Check the specifications to time shut-down
3.2 Follow procedures to shut down equipment
3.3 Deal with items that can be recycled or re-worked according to specified procedures
3.4 Dispose of waste according to specified procedures
3.5 Make equipment ready for future use after completion of the process
Unit 155  Control weighing in food manufacture

Level: 2
Credit value: 2
UAN: T/602/1702

Unit aim
This unit supports workforce development for those who control weighing in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to prepare to weigh food products following company procedures
2. Be able to carry out weighing operations following company procedures

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.206S Control weighing in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling weighing in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 155  
Control weighing in food manufacture

Assessment criteria

Outcome 1  Be able to prepare to weigh food products following company procedures
The learner can:
1.1 Assemble equipment and materials for weighing
1.2 Make sure there is a free flow of product for weighing and deal with any problems if not
1.3 Set up weighing equipment
1.4 Check that space is available to receive weighed products and deal with any problems if not.

Outcome 2  Be able to carry out weighing operations following company procedures
The learner can:
2.1 Monitor the flow of product for weighing and deal with any problems
2.2 Carry out the weighing operation
2.3 Deal with any variations to company specifications during weighing
2.4 Monitor the output of product to the correct place and deal with any build-up
2.5 Identify and dispose of waste and product not meeting customer specifications to the correct place.
Unit 156  Control mixing in food manufacture

Level: 2
Credit value: 3
UAN: A/602/1703

Unit aim
This unit supports workforce development for those who control mixing in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for mixing according to specifications
2. Be able to carry out mixing according to specifications
3. Be able to finish mixing according to specification

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.207S Control mixing in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling mixing in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 156  Control mixing in food manufacture

Assessment criteria

Outcome 1  Be able to prepare for mixing according to specifications
The learner can:
1.1  Check product specifications at the right time
1.2  Set up equipment
1.3  Check that material for mixing is available and fit for use
1.4  Make sure that services meet requirements
1.5  Start up the plant and check that it is running to specification
1.6  Take action in response to operating problems
1.7  Maintain communication throughout the mixing process.

Outcome 2  Be able to carry out mixing according to specifications
The learner can:
2.1  Use equipment and make sure that it is supplied with appropriate materials and services
2.2  Achieve required output
2.3  Make sure the product is transferred to the next stage in the manufacturing operation
2.4  Take action in response to operating problems within the limits of own responsibility
2.5  Maintain effective communication.

Outcome 3  Be able to finish mixing according to specification
The learner can:
3.1  Check the specifications to time shut-down accurately
3.2  Shut down equipment
3.3  Take action to deal with items that can be recycled or re-worked
3.4  Dispose of waste
3.5  Make equipment ready for future use after completion of the process
3.6  Maintain effective communication
3.7  Complete all records and reports.
Unit 157  Control heat treatment in food manufacture

Level:  2  
Credit value:  3  
UAN:  A/601/4606

Unit aim
This unit supports workforce development for those who control heat treatment in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for heat treatment according to specifications
2. Be able to carry out heat treatment according to specifications
3. Be able to finish heat treatment according to specifications and procedures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.208S Control heat treatment in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling heat treatment in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 157   Control heat treatment in food manufacture
Assessment criteria

Outcome 1   Be able to prepare for heat treatment according to specifications
The learner can:
1.1   Check product specifications
1.2   Set up equipment
1.3   Make sure that material for heat treatment is available and fit for use
1.4   Make sure that services meet requirements
1.5   Start up the plant and check that it is running to specification
1.6   Take action in response to operating problems
1.7   Maintain communication throughout the process.

Outcome 2   Be able to carry out heat treatment according to specifications
The learner can:
2.1   Use equipment and make sure that it is supplied with appropriate materials and services
2.2   Achieve required output
2.3   Make sure the product is transferred to the next stage in the manufacturing operation
2.4   Take action in response to operating problems within the limits of own responsibility
2.5   Maintain communication.

Outcome 3   Be able to finish heat treatment according to specifications and procedures
The learner can:
3.1   Check the specifications to time shut-down accurately
3.2   Shut down equipment
3.3   Take action to deal with items that can be recycled or re-worked
3.4   Dispose of waste
3.5   Make equipment ready for future use after completion of the process
3.6   Maintain effective communication
3.7   Complete all records and reports.
Unit 158  Control separation in food manufacture

Level:  2  
Credit value:  3  
UAN:  F/601/5174

Unit aim
This unit supports workforce development for those who control separation, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for separation according to specifications
2. Be able to carry out separation according to specifications
3. Be able to finish separation according to specifications and procedures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.209S Control separation in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling separation in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 158 Control separation in food manufacture
Assessment criteria

Outcome 1 Be able to prepare for separation according to specifications
The learner can:
1.1 Check product specifications at the right time
1.2 Set up equipment
1.3 Make sure that material for separation is available and fit for use
1.4 Make sure that services meet requirements
1.5 Start up the plant and check that it is running to specification
1.6 Take action in response to operating problems
1.7 Maintain communication throughout the process.

Outcome 2 Be able to carry out separation according to specifications
The learner can:
2.1 Use equipment and make sure that it is supplied with appropriate materials and services
2.2 Achieve required output
2.3 Make sure the product is transferred to the next stage in the manufacturing operation
2.4 Take action in response to operating problems within the limits of own responsibility
2.5 Maintain effective communication.

Outcome 3 Be able to finish separation according to specifications and procedures
The learner can:
3.1 Check the specifications to time shut-down accurately
3.2 Shut down equipment according to specified procedures
3.3 Take action to deal with items that can be recycled or re-worked
3.4 Dispose of waste
3.5 Make equipment ready for future use after completion of the process
3.6 Maintain effective communication
3.7 Complete all records and reports.
Unit 159  Control temperature reduction in food manufacture

Level:  2  
Credit value:  3  
UAN:  Y/601/4631  

Unit aim
This unit supports workforce development for those who control temperature reduction, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for temperature reduction according to specifications
2. Be able to carry out temperature reduction according to specifications
3. Be able to finish temperature reduction according to specifications and procedures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.210S Control temperature reduction in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling temperature reduction in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 159  Control temperature reduction in food manufacture

Assessment criteria

Outcome 1  Be able to prepare for temperature reduction according to specifications

The learner can:
1.1 Check product specifications
1.2 Set up equipment
1.3 Make sure that material for temperature reduction is available and fit for use
1.4 Make sure that services meet requirements
1.5 Start up the plant and check that it is running to specification
1.6 Take appropriate action in response to operating problems
1.7 Maintain communication throughout the process.

Outcome 2  Be able to carry out temperature reduction according to specifications

The learner can:
2.1 Use equipment and make sure that it is supplied with appropriate materials and services
2.2 Achieve required output
2.3 Make sure the product is transferred to the next stage in the manufacturing operation
2.4 Take action in response to operating problems within the limits of own responsibility
2.5 Maintain effective communication.

Outcome 3  Be able to finish temperature reduction according to specifications and procedures

The learner can:
3.1 Check the specifications to time shut-down
3.2 Shut down equipment
3.3 Take action to deal with items that can be recycled or re-worked
3.4 Dispose of waste
3.5 Make equipment ready for future use after completion of the process
3.6 Maintain effective communication
3.7 Complete all records and reports.
Unit 160  Control batching in food manufacture

Level: 2  
Credit value: 3  
UAN: J/502/7364

Unit aim
This unit supports workforce development for those who control batching, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for batching according to specifications
2. Be able to carry out batching according to specifications
3. Be able to finish batching according to specifications and procedures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.211S Control batching in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling batching in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 160  Control batching in food manufacture

Assessment criteria

Outcome 1  Be able to prepare for batching according to specifications
The learner can:
1.1  Check product specifications at the right time
1.2  Set up equipment
1.3  Make sure that material for batching is available and fit for use
1.4  Make sure that services meet requirements
1.5  Start up the plant and check that it is running to specification
1.6  Take appropriate action in response to operating problems
1.7  Maintain communication throughout the process

Outcome 2  Be able to carry out batching according to specifications
The learner can:
2.1  Use equipment and make sure that it is supplied with appropriate materials and services
2.2  Achieve required output
2.3  Make sure the product is transferred to the next stage in the manufacturing operation
2.4  Take action in response to operating problems within the limits of their responsibility
2.5  Maintain effective communication.

Outcome 3  Be able to finish batching according to specifications and procedures
The learner can:
3.1  Check the specifications to time shut-down accurately
3.2  Shut down equipment
3.3  Take action to deal with items that can be recycled or re-worked
3.4  Dispose of waste
3.5  Make equipment ready for future use after completion of the process
3.6  Maintain effective communication
3.7  Complete all records and reports.
Unit 161  Control conversion in food manufacture

Level: 2
Credit value: 3
UAN: R/502/7464

Unit aim
This unit supports workforce development for those who control conversion, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for conversion according to specifications
2. Be able to carry out conversion according to specification
3. Be able to finish conversion according to specifications and procedures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.2125 Control conversion in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling conversion in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 161  Control conversion in food manufacture

Assessment criteria

**Outcome 1  Be able to prepare for conversion according to specifications**

The learner can:

1.1  Check product specifications at the right time
1.2  Set up equipment
1.3  Make sure that material for conversion is available and fit for use
1.4  Make sure that services meet requirements
1.5  Start up the plant and check that it is running to specification
1.6  Take appropriate action in response to operating problems
1.7  Maintain communication throughout the process.

**Outcome 2  Be able to carry out conversion according to specification**

The learner can:

2.1  Use equipment and make sure that it is supplied with appropriate materials and services
2.2  Achieve required output
2.3  Make sure the product is transferred to the next stage in the manufacturing operation
2.4  Take action in response to operating problems within the limits of own responsibility
2.5  Maintain effective communication.

**Outcome 3  Be able to finish conversion according to specifications and procedures**

The learner can:

3.1  Check the specifications to time shut-down accurately
3.2  Shut down equipment
3.3  Take action to deal with items that can be recycled or re-worked
3.4  Dispose of waste
3.5  Make equipment ready for future use after completion of the process
3.6  Maintain effective communication
3.7  Complete all records and reports.
Unit 162 Control conditioning in food manufacture

Level: 2
Credit value: 3
UAN: L/502/7463

Unit aim
This unit supports workforce development for those who control conditioning in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for conditioning according to specifications
2. Be able to carry out conditioning according to specifications
3. Be able to finish conditioning according to specifications and procedures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.213S Control conditioning in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling conditioning in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 162  Control conditioning in food manufacture
Assessment criteria

Outcome 1  Be able to prepare for conditioning according to specifications
The learner can:
1.1  Check product specifications at the right time
1.2  Set up equipment
1.3  Make sure that material for conditioning is available and fit for use
1.4  Make sure that services meet requirements
1.5  Start up the plant and check that it is running to specification
1.6  Take action in response to operating problems
1.7  Maintain communication throughout the process.

Outcome 2  Be able to carry out conditioning according to specifications
The learner can:
2.1  Use equipment and make sure that it is supplied with appropriate materials and services
2.2  Achieve required output
2.3  Make sure the product is transferred to the next stage in the manufacturing operation
2.4  Take action in response to operating problems within the limits of own responsibility
2.5  Maintain effective communication.

Outcome 3  Be able to finish conditioning according to specifications and procedures
The learner can:
3.1  Check the specifications to time shut-down accurately
3.2  Shut down equipment
3.3  Take action to deal with items that can be recycled or re-worked
3.4  Dispose of waste
3.5  Make equipment ready for future use after completion of the process
3.6  Maintain effective communication
3.7  Complete all records and reports.
Unit 163 Control forming in food manufacture

Level: 2
Credit value: 3
UAN: F/602/1704

Unit aim
This unit supports workforce development for those who control forming in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for forming according to specifications
2. Be able to carry out forming according to specification
3. Be able to finish forming according to specifications and procedures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.214S Control forming in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling forming in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 163  Control forming in food manufacture

Assessment criteria

Outcome 1  Be able to prepare for conditioning according to specifications

The learner can:
1.1 Check product specifications at the right time
1.2 Set up equipment
1.3 Make sure that material for forming is available and fit for use
1.4 Make sure that services meet requirements
1.5 Start up the plant and check that it is running to specification
1.6 Take action in response to operating problems
1.7 Maintain communication throughout the process.

Outcome 2  Be able to carry out forming according to specification

The learner can:
2.1 Use equipment and make sure that it is supplied with appropriate materials and services
2.2 Achieve required output
2.3 Make sure the product is transferred to the next stage in the manufacturing operation
2.4 Take action in response to operating problems within the limits of own responsibility
2.5 Maintain effective communication.

Outcome 3  Be able to finish forming according to specifications and procedures

The learner can:
3.1 Check the specifications to time shut-down accurately
3.2 Shut down equipment
3.3 Take action to deal with items that can be recycled or re-worked
3.4 Dispose of waste
3.5 Make equipment ready for future use after completion of the process
3.6 Maintain effective communication
3.7 Complete all records and reports.
Unit 164  Control depositing in food manufacture

Level: 2
Credit value: 3
UAN: J/601/4608

Unit aim
This unit supports workforce development for those who control depositing in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for depositing according to specifications
2. Be able to carry out depositing according to specifications
3. Be able to finish depositing according to specifications and procedures

Guided learning hours
It is recommended that 18 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.215S Controlling depositing in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling depositing in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 164 Control depositing in food manufacture

Assessment criteria

Outcome 1 Be able to prepare for depositing according to specifications
The learner can:
1.1 Check the availability of mixtures against specifications
1.2 Set up machinery with the correct nozzles and attachments
1.3 Start up machinery check that it is working to specification
1.4 Check the condition of mixtures and load into hoppers
1.5 Maintain communication throughout the process.

Outcome 2 Be able to carry out depositing according to specifications
The learner can:
2.1 Control the supply of clean trays or tins for depositing
2.2 Control depositing machinery to produce individual portions
2.3 Control the storage or racking of trays of deposited products
2.4 Control the transfer of deposited products to the next progressing stage
2.5 Take action in response to operating problems within the limits of own authority.

Outcome 3 Be able to finish depositing according to specifications and procedures
The learner can:
3.1 Check the specifications to time shut-down accurately
3.2 Shut down the machinery
3.3 Remove and dispose of unwanted mixtures
3.4 Deal with waste mixtures for recycling
3.5 Check and ensure that depositing machinery is ready for further use
3.6 Communicate with others
3.7 Complete all records and reports.
Unit 165  Control enrobing in food manufacture

Level: 2
Credit value: 3
UAN: F/601/4610

Unit aim
This unit supports workforce development for those who control enrobing in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for enrobing according to specifications
2. Be able to carry out enrobing according to specifications
3. Be able to finish enrobing according to specifications and procedures

Guided learning hours
It is recommended that 17 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.216S Control enrobing in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling enrobing in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 165  Control enrobing in food manufacture

Assessment criteria

Outcome 1  Be able to prepare for enrobing according to specifications
The learner can:
1.1 Check the availability of products for enrobing
1.2 Set up enrobing machinery
1.3 Start up enrobers and check that they are working to specification
1.4 Deal with problems to maintain schedules
1.5 Maintain communication throughout the process.

Outcome 2  Be able to carry out enrobing according to specifications
The learner can:
2.1 Control the infeed of products for enrobing
2.2 Control the progress of products during enrobing
2.3 Control the output of enrobed products
2.4 Deal with substandard or contaminated products
2.5 Take action in response to operating problems within the limits of own authority
2.6 Control the transfer of enrobed products to the next processing stage.

Outcome 3  Be able to finish enrobing according to specifications and procedures
The learner can:
3.1 Shut down enrobers
3.2 Remove and dispose of coatings and product remains
3.3 Check that enrobers are ready for further use
3.4 Communicate with others
3.5 Complete all records and reports.
Unit 166 Control labelling in food manufacture

Level: 2
Credit value: 3
UAN: H/502/7453

Unit aim
This unit supports workforce development for those who control labelling in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for labelling according to specifications
2. Be able to carry out labelling according to specifications
3. Be able to finish labelling according to specified procedures

Guided learning hours
It is recommended that 17 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.217S Control wrapping and labelling in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling labelling in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 166  Control labelling in food manufacture
Assessment criteria

Outcome 1  Be able to prepare for labelling according to specifications
The learner can:
1.1 Check the availability of products for labelling
1.2 Set up labelling machinery
1.3 Start up machinery and check that it is working to specification
1.4 Deal with problems to maintain schedules
1.5 Maintain communication throughout the process.

Outcome 2  Be able to carry out labelling according to specifications
The learner can:
2.1 Control the infeed of products for labelling
2.2 Control the progress of products during labelling
2.3 Control the output of labelled products
2.4 Deal with substandard or contaminated products
2.5 Take action in response to operating problems within the remit of own authority
2.6 Control transfer of labelled products to the next processing stage.

Outcome 3  Be able to finish labelling according to specified procedures
The learner can:
3.1 Shut down the labelling machinery
3.2 Remove and dispose of waste and by-products
3.3 Check and ensure that machinery is ready for further use
3.4 Communicate with others
3.5 Complete all records and reports.
Unit 167 Control wrapping in food manufacture

Level: 2
Credit value: 3
UAN: D/601/4632

Unit aim
This unit supports workforce development for those who control wrapping in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for wrapping according to specifications
2. Be able to carry out wrapping according to specifications
3. Be able to finish wrapping according to specified procedures

Guided learning hours
It is recommended that 17 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.217S Control wrapping and labelling in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling wrapping in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 167  Control wrapping in food manufacture
Assessment criteria

Outcome 1  Be able to prepare for wrapping according to specifications
The learner can:
1.1  Check the availability of products for wrapping
1.2  Set up machinery
1.3  Start up machinery and check that it is working to specification
1.4  Deal with problems to maintain schedules
1.5  Maintain communication throughout the process.

Outcome 2  Be able to carry out wrapping according to specifications
The learner can:
2.1  Control the infeed of products for flow wrapping
2.2  Control the progress of products during wrapping
2.3  Control the output of wrapped products
2.4  Deal with substandard or contaminated products
2.5  Take action in response to operating problems within the remit of own authority
2.6  Control transfer of wrapped products to the next processing stage.

Outcome 3  Be able to finish wrapping according to specified procedures
The learner can:
3.1  Shut down the machinery
3.2  Remove and dispose of waste and by-products
3.3  Check and ensure that machinery is ready for further use
3.4  Communicate with others
3.5  Complete all records and reports.
Unit 168  Control bottling in food manufacture

Level: 2
Credit value: 3
UAN: L/601/5176

Unit aim
This unit supports workforce development for those who control bottling in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for bottling according to specifications
2. Be able to carry out bottling according to specifications
3. Be able to finish bottling according to specifications

Guided learning hours
It is recommended that 19 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.218S Control bottling and packing in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling bottling in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 168  
Control bottling in food manufacture

Assessment criteria

**Outcome 1  Be able to prepare for bottling according to specifications**
The learner can:
1.1 Check product specifications at the right time
1.2 Set up equipment
1.3 Make sure that material for bottling is available and fit for use
1.4 Make sure that services meet requirements
1.5 Start up the plant and check that it is running to specification
1.6 Maintain communication throughout the process.

**Outcome 2  Be able to carry out bottling according to specifications**
The learner can:
2.1 Use equipment according to specified procedures and make sure that it is supplied with appropriate materials and services
2.2 Achieve required output
2.3 Make sure the product is transferred to the next stage in the manufacturing operation
2.4 Take action in response to operating problems within the limits of own responsibility.

**Outcome 3  Be able to finish bottling according to specifications**
The learner can:
3.1 Check the specifications to time shut-down accurately
3.2 Shut down equipment
3.3 Take action to deal with items that can be recycled or re-worked
3.4 Return surplus materials and consumables to the correct place at the end of the production run
3.5 Dispose of waste
3.6 Make equipment ready for future use after completion of the process
3.7 Communicate with others
3.8 Complete all records and reports.
Unit 169  Control packaging in food manufacture

Level: 2
Credit value: 3
UAN: Y/601/5178

Unit aim
This unit supports workforce development for those who control packaging in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for packaging according to specifications
2. Be able to carry out packaging according to specifications
3. Be able to complete packaging operations according to specifications and procedures

Guided learning hours
It is recommended that 19 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.218S Control bottling and packing in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling packaging in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 169  Control packaging in food manufacture

Assessment criteria

Outcome 1  Be able to prepare for packaging according to specifications
The learner can:
1.1  Check product specifications at the right time
1.2  Set up equipment
1.3  Make sure that material for packaging is available and fit for use
1.4  Make sure that services meet requirements
1.5  Start up the plant and check that it is running to specification
1.6  Maintain communication throughout the process.

Outcome 2  Be able to carry out packaging according to specifications
The learner can:
2.1  Use equipment and make sure that it is supplied with appropriate materials and services
2.2  Achieve required output
2.3  Make sure the product is transferred to the next stage in the manufacturing operation
2.4  Take action in response to operating problems within the limits of own responsibility.

Outcome 3  Be able to complete packaging operations according to specifications and procedures
The learner can:
3.1  Check the specifications to time shut-down accurately
3.2  Follow procedures to shut down equipment
3.3  Take action to deal with items that can be recycled or re-worked
3.4  Return surplus materials and consumables to the correct place at the end of the production run
3.5  Dispose of waste
3.6  Make equipment ready for future use after completion of the process
3.7  Communicate with others
3.8  Complete all records and reports.
Unit 170  Control pelletising in food manufacture

Level: 2
Credit value: 3
UAN: R/502/7481

Unit aim
This unit supports workforce development for those who control pelletising in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for pelletising according to specifications
2. Be able to carry out pelletising according to specifications
3. Be able to finish pelletising according to specifications and procedures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.219S Control pelletising in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling pelletising in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 170  Control pelletising in food manufacture

Assessment criteria

**Outcome 1  Be able to prepare for pelletising according to specifications**

The learner can:

1.1 Check product specifications at the right time
1.2 Set up equipment
1.3 Make sure that material for pelletising is available and fit for use
1.4 Make sure that services meet requirements
1.5 Start up the plant and check that it is running to specification
1.6 Take action in response to operating problems
1.7 Maintain communication throughout the process.

**Outcome 2  Be able to carry out pelletising according to specifications**

The learner can:

2.1 Use equipment and make sure that it is supplied with appropriate materials and services
2.2 Achieve required output
2.3 Make sure the product is transferred to the next stage in the manufacturing operation
2.4 Take action in response to operating problems within the limits of own responsibility
2.5 Maintain effective communication.

**Outcome 3  Be able to finish pelletising according to specifications and procedures**

The learner can:

3.1 Check the specifications to time shut-down accurately
3.2 Shut down equipment
3.3 Take action to deal with items that can be recycled or re-worked
3.4 Dispose of waste
3.5 Make equipment ready for future use after completion of the process
3.6 Communicate with others
3.7 Complete all records and reports.
Unit 171  Control slicing in food manufacture

Level:  2  
Credit value:  3  
UAN:  R/601/4613  

Unit aim  
This unit supports workforce development for those who control slicing in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes  
There are three learning outcomes to this unit. The learner will:  
1. Be able to prepare for slicing according to specifications  
2. Be able to carry out slicing according to specifications  
3. Be able to finish slicing according to specifications and procedures

Guided learning hours  
It is recommended that 17 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.221S Control slicing and bagging in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the skills of learners in the workplace, controlling slicing in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 171 Control slicing in food manufacture

Assessment criteria

Outcome 1 Be able to prepare for slicing according to specifications
The learner can:
1.1 Check the availability of products for slicing
1.2 Set up slicing machinery
1.3 Start up slicers and check that they are working to specification
1.4 Deal with problems to maintain schedules
1.5 Maintain communication throughout the process.

Outcome 2 Be able to carry out slicing according to specifications
The learner can:
2.1 Control the infeed of products for slicing
2.2 Control the progress of products during slicing
2.3 Control the output of sliced products
2.4 Deal with substandard or contaminated products
2.5 Take action in response to operating problems within the limits of own authority
2.6 Control the transfer of sliced products to the next processing stage.

Outcome 3 Be able to finish slicing according to specifications and procedures
The learner can:
3.1 Shut down slicers
3.2 Remove and dispose of waste and product remains
3.3 Check and ensure that slicers are ready for further use
3.4 Communicate with others
3.5 Complete all records and reports.
Unit 172 Understand how to control processes in food manufacture

Level: 2
Credit value: 4
UAN: Y/601/4614

Unit aim
This unit supports workforce development for those who understand how to control processes, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Know about the requirements for controlling processes
2. Know how to prepare control processes
3. Know how to carry out process control procedures
4. Know how to complete process control procedures

Guided learning hours
It is recommended that 26 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.222K Understand how to control processes in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling processes in food manufacture it can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 172  
Understand how to control processes in food manufacture

Assessment criteria

Outcome 1  
Know about the requirements for controlling processes

The learner can:

1.1  State the purpose and importance of the process
1.2  Describe how to obtain the necessary resources for the process
1.3  State what recording, reporting and communication is needed during processing
1.4  Outline the importance of communication during process control
1.5  Describe how to follow work instructions and why it is important to do so
1.6  State the limits of your own authority and competence and the importance of working within them
1.7  Outline when and how to seek help.

Outcome 2  
Know how to prepare control processes

The learner can:

2.1  State types and quantity of materials to use
2.2  State what equipment and tools to use and their correct condition
2.3  Outline how to obtain and interpret the relevant process or ingredient specification
2.4  Describe what action to take when the process specification is not met
2.5  Describe how to carry out the necessary pre-start checks and why it is important to do so
2.6  Describe how to follow the start-up procedures for the process and why it is important to do so.

Outcome 3  
Know how to carry out process control procedures

The learner can:

3.1  Explain the importance of following the relevant process control procedures and the importance of this
3.2  Outline different ways to carry out the process
3.3  Describe how to operate, regulate and shut down the relevant equipment
3.4  Describe how to carry out the process in an efficient manner and why it is important to do so
3.5  List the common sources of contamination during processing and how to avoid these and describe what might happen if this is not done
3.6  Outline the consequences of contamination in processing.

Outcome 4  
Know how to complete process control procedures

The learner can:

4.1  Describe how to deal with items that can be recycled or re-worked
4.2  Describe how to dispose of waste and why it is important to do so
4.3  State how to make equipment ready for future use.
Unit 173  Slice and bag individual food products

Level: 2  
Credit value: 2  
UAN: T/601/4653

Unit aim
This unit supports workforce development for those who slice and bag individual food products in a non-automated food production or distribution environment. The unit is designed for use primarily by food production operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to slice individual products
2. Be able to bag individual products

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.226S Slice and bag individual food products.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace when slicing and bagging individual food products. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 173  
Slice and bag individual food products

Assessment criteria

Outcome 1  Be able to slice individual products
The learner can:
1.1 Check the available products against instructions and specifications and take action on discovering any discrepancy
1.2 Select slicing equipment
1.3 Check the operating condition of slicing equipment
1.4 Load the slicing equipment according to specified procedures, ensuring safety devices are activated
1.5 Slice products to specification
1.6 Position the products for further processing.

Outcome 2  Be able to bag individual products
The learner can:
2.1 Check the available sliced products against instructions and specifications, taking action on discovering any discrepancy
2.2 Select the specified bags and closures for use
2.3 Check bagging and closure equipment for cleanliness and operation
2.4 Bag sliced products to specification
2.5 Close bagged products to specification
2.6 Place bagged products in the required condition and location, for further processing.
Unit 174 Understand how to slice and bag individual food products

Level: 2
Credit value: 2
UAN: R/601/4658

Unit aim
This unit supports workforce development for those who slice and bag individual food products in a non-automated food production or distribution environment. The unit is designed for use primarily by food production operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to slice individual food products
2. Know how to bag individual food products

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.227K Understand how to slice and bag individual food products.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when slicing and bagging individual food products. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 174  Understand how to slice and bag individual food products

Assessment criteria

Outcome 1  Know how to slice individual food products
The learner can:
1.1 Outline the requirements of the weighing regulations
1.2 Outline the importance of slicing and bagging to maintain weight and comply with the weighing regulations
1.3 Describe how to recognise and report sliced food products that do not meet specification
1.4 Outline the procedure for rejecting and isolating non-compliant sliced food products
1.5 Describe how the width between the blades of the slicing machine provides different thickness of slices
1.6 Describe how to recognise and report poor slicing machine performance caused by blunt slicing blades.

Outcome 2  Know how to bag individual food products
The learner can:
2.1 Describe the food product bagging materials and their basic properties in maintaining product quality and shelf-life
2.2 Describe how to check colour codes or arrangements for applying the specified closures
2.3 Describe how to check the labels on bags to ensure compliance with the product specification
2.4 Describe the common sources of food product contamination during slicing and bagging
2.5 Outline how to avoid contamination during slicing and bagging food products and the importance of doing this.
Unit 175 Bake off food products for sale

Level: 2
Credit value: 2
UAN: A/601/4573

Unit aim
This unit supports workforce development for those who bake off food products in a food production business. The unit is designed for use primarily by food production operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to bake-off products for sale
2. Be able to glaze and decorate bake-off products

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.228S Bake off food products for sale.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, when baking off food products for sale. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 175  Bake off food products for sale

Assessment criteria

Outcome 1  Be able to bake-off products for sale

The learner can:

1.1 Bake products to specification using required operational procedures
1.2 Make sure that baked products meet the requirements of the production schedule and the product specification
1.3 Check and confirm that products have been baked according to specifications
1.4 Take action in line with operational requirements where products fail to meet the product specification
1.5 Store products at the specified temperature for the next stage in the bakery process.

Outcome 2  Be able to glaze and decorate bake-off products

The learner can:

2.1 Confirm that products are in the specified condition for glazing or decorating
2.2 Make sure that finishing materials and methods conform to specification for texture, colour and temperature
2.3 Confirm that glazed and decorated products conform to the product specification and are in the required position for the next stage in the bakery process
2.4 Take action in line with operational requirements where finished products fail to meet the product specification
2.5 Make sufficient glazed and decorated products available to meet production requirements
2.6 Reclaim waste materials or dispose of them according to operational requirements.
Unit 176  Understand how to bake off food products for sale

Level: 2
Credit value: 2
UAN: J/601/4575

Unit aim
This unit supports workforce development for those who bake off food products in a food production business. The unit is designed for use primarily by food production operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to bake off food products
2. Know how to maintain quality of bake-off products

Guided learning hours
It is recommended that 13 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.229K Understand how to bake off food products for sale.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when baking off food products for sale. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 176    Understand how to bake off food products for sale

Assessment criteria

**Outcome 1    Know how to bake off food products**

The learner can:

1.1 Outline the factors that affect baking, including:
   - temperature
   - time
   - humidity
   - weight
   - shape

1.2 Describe the basic changes to products during baking

1.3 Outline the importance of specified cooling conditions

1.4 Describe the types of finishing materials for bake-off products and their use

1.5 Outline the key factors that affect the handling and application of glazes and decorative materials

1.6 Outline the key features of legal and standard operational requirements, and how they affect each other and working practices.

**Outcome 2    Know how to maintain quality of bake-off products**

The learner can:

2.1 Outline the assessment procedures for confirming quality

2.2 Describe how to recognise products that fail to meet the specification

2.3 State the action that should be taken if products do not meet the required standards

2.4 Describe the reporting procedures.
Unit 177  Control defrosting in food manufacture

Level: 2  
Credit value: 2  
UAN: J/602/1705

Unit aim
This unit supports workforce development for those who control defrosting in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for the defrosting process
2. Be able to control the defrosting process
3. Be able to complete the defrosting process

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.230S Control defrosting in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling defrosting in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 177  Control defrosting in food manufacture
Assessment criteria

**Outcome 1  Be able to prepare for the defrosting process**
The learner can:
1.1 Obtain and interpret defrosting specifications
1.2 Prepare defrosting facilities to receive product
1.3 Obtain frozen product according to the requirements of the defrosting specification
1.4 Take action in response to operating problems
1.5 Maintain communication throughout the process.

**Outcome 2  Be able to control the defrosting process**
The learner can:
2.1 Establish product in defrosting facility
2.2 Establish, monitor and maintain defrosting process according to defrosting specification
2.3 Handle and store product in a manner which maintains quality and condition
2.4 Maintain the condition of the work area throughout the process
2.5 Remove defrosted product from the defrosting facility and transfer to the next stage in the process
2.6 Take action in response to operating problems.

**Outcome 3  Be able to complete the defrosting process**
The learner can:
3.1 Dispose of waste material according to organisational procedures
3.2 Make equipment and work area ready for future use after the completion of the process
3.3 Complete all records and reports.
Unit 178  Understand how to control defrosting in food manufacture

Level: 2  
Credit value: 3  
UAN: D/601/4663

Unit aim
This unit supports workforce development for those who understand how to control defrosting, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to prepare for the defrosting process
2. Know how to maintain high standards of quality during the defrosting process
3. Know how to complete the defrosting process

Guided learning hours
It is recommended that 19 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.231K Understand how to control defrosting in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling defrosting in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 178  
Understand how to control defrosting in food manufacture

Assessment criteria

Outcome 1  
Know how to prepare for the defrosting process

The learner can:
1.1 Describe the methods used to defrost
1.2 Describe the facilities, services and process requirements of defrosting operations
1.3 Describe how to obtain and interpret the defrosting specifications
1.4 Describe how to prepare defrosting facilities for operation
1.5 Explain how labelling and traceability are relevant to defrosting and why they are important
1.6 State the limits of their own authority and competence and why it is important to work within those limits.

Outcome 2  
Know how to maintain high standards of quality during the defrosting process

The learner can:
2.1 Explain how to monitor the defrosting process and why it is important
2.2 Describe how defrosted product should be handled to maintain condition and quality
2.3 State the action to take when the process specification is not met
2.4 Describe how to assess the quality of frozen and defrosted products
2.5 State the causes of poor-quality frozen products
2.6 Outline the common quality problems and their likely causes.

Outcome 3  
Know how to complete the defrosting process

The learner can:
3.1 Explain the action to take when the process specification is not met
3.2 Describe how to dispose of waste according to specified procedures and why it is important to do so
3.3 State how to carry out types of recording, reporting and communication needed
3.4 Describe the importance of reporting, recording and communications to specified procedures.
Unit 179  

**Prepare sauces and marinades by hand in food manufacture**

**Level:** 2  
**Credit value:** 3  
**UAN:** L/602/1706

**Unit aim**
This unit supports workforce development for those who prepare sauces and marinades by hand in a food manufacturing business. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

**Learning outcomes**
There are **three** learning outcomes to this unit. The learner will:
1. Be able to prepare to mix ingredients  
2. Be able to mix ingredients  
3. Be able to finish mixing process

**Guided learning hours**
It is recommended that **22** hours should be allocated for this unit, although patterns of delivery are likely to vary.

**Details of the relationship between the unit and relevant national standards**
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.232S Prepare sauces/marinades by hand in food manufacture.

**Support of the unit by a sector or other appropriate body**
This unit is endorsed by Improve.

**Assessment**
This unit is designed to assess the skills of learners in the workplace, when preparing sauces and marinades by hand in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 179 Prepare sauces and marinades by hand in food manufacture

Assessment criteria

**Outcome 1  Be able to prepare to mix ingredients**
The learner can:
1.1 Obtain and interpret brining specification
1.2 Prepare equipment and associated work areas to ensure conditions suitable for food preparation
1.3 Set up and check the accuracy of weighing equipment
1.4 Obtain and prepare raw materials of required quality according to specification
1.5 Take action in response to operating problems
1.6 Maintain communications throughout the process.

**Outcome 2  Be able to mix ingredients**
The learner can:
2.1 Measure required quantities of raw materials
2.2 Add raw materials to the mix in specified sequence, according to operating instructions
2.3 Mix raw materials to achieve required product specification
2.4 Handle raw materials in a manner which maintains quality and condition
2.5 Test quality and consistency of mix
2.6 Make sure mix is transferred to the next production stage
2.7 Take action in response to operating problems.

**Outcome 3  Be able to finish mixing process**
The learner can:
3.1 Dispose of waste material according to organisational procedures
3.2 Make equipment and work area ready for future use after completion of the process
3.3 Complete all records.
Unit 180  
Understand how to prepare sauces and marinades in food manufacture

Level: 2  
Credit value: 2  
UAN: R/602/1707

Unit aim  
This unit supports workforce development for those who understand how to prepare sauces and marinades in a food manufacturing business. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes  
There are four learning outcomes to this unit. The learner will:
1. Know what the requirements are for preparing sauces and marinades in food manufacture  
2. Know how to prepare to mix sauces and marinades  
3. Know how to prepare sauces and marinades  
4. Know how to finish mixing sauces and marinades

Guided learning hours  
It is recommended that 8 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.233K Understand how to prepare sauces/marinades.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when preparing sauces and marinades in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 180 Understand how to prepare sauces and marinades in food manufacture

Assessment criteria

Outcome 1 Know what the requirements are for preparing sauces and marinades in food manufacture

The learner can:
1.1 Describe how sauces and marinades are used in food manufacture
1.2 Describe the facilities and equipment required to prepare sauces and marinades
1.3 Describe the labelling and traceability relevant to sauces and marinades
1.4 State why it is important to work within limits of own authority and competence
1.5 State how to carry out and the importance of recording, reporting and communication.

Outcome 2 Know how to prepare to mix sauces and marinades

The learner can:
2.1 Describe how to assess the quality of raw materials
2.2 State why the quality of raw materials is important to sauce and marinade production
2.3 Describe how to prepare facilities and equipment for operation
2.4 Describe how to set up and ensure accuracy of weighing equipment.

Outcome 3 Know how to prepare sauces and marinades

The learner can:
3.1 Describe how to mix sauces and marinades
3.2 State why it is important to follow recipes accurately
3.3 Describe how the quality of sauces and marinades can affect the quality of the final product
3.4 Describe how raw materials should be handled to maintain condition and quality
3.5 State how to test the quality and consistency of sauces and marinades.

Outcome 4 Know how to finish mixing sauces and marinades

The learner can:
4.1 Describe the common quality problems and their likely causes
4.2 Describe the action to take when the process specification is not met
4.3 State why it is important to dispose of waste according to specified procedures.
Unit 181  Control membrane processing in food manufacture

Level: 2
Credit value: 3
UAN: K/502/7454

Unit aim
This unit supports workforce development for those who control membrane processing in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Be able to prepare to start up and control membrane processing
2. Be able to control membrane processing plant
3. Be able to implement shut-down procedures
4. Be able to implement cleaning operations

Guided learning hours
It is recommended that 21 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit supports workforce development for those who control membrane processing in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling membrane processing in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 181  Control membrane processing in food manufacture

Assessment criteria

Outcome 1  Be able to prepare to start up and control membrane processing
The learner can:
1.1 Establish and maintain communication with managers and colleagues
1.2 Ensure that all necessary plant, equipment, materials and services are available and fit for use
1.3 Check that required instrumentation is working and take action in response to any identified faults.

Outcome 2  Be able to control membrane processing plant
The learner can:
2.1 Ensure that start-up is in accordance with procedures and uses resources efficiently
2.2 Check that plant is set to achieve optimum performance
2.3 Ensure that permeate flux rates are monitored and recorded
2.4 Conduct equipment performance checks in accordance with procedures and regulatory requirements
2.5 Evaluate faults for impact on operations and take action to correct problems within the limits of own authority
2.6 Complete and process the necessary documentation according to specified procedures.

Outcome 3  Be able to implement shut-down procedures
The learner can:
3.1 Shut down chosen plant, equipment and associated services in line with procedures
3.2 Ensure that product losses are minimised during shut-down, and avoid product contamination from flushing
3.3 Make sure that plant and equipment are safe, secure and fit for continued operation or cleaning
3.4 Complete and process documentation according to specified procedures
3.5 Maintain communication with managers and colleagues.

Outcome 4  Be able to implement cleaning operations
The learner can:
4.1 Wear specified personal protective equipment (PPE)
4.2 Set up the plant for cleaning
4.3 Use cleaning products at the specified concentrations and temperatures
4.4 Ensure compliance with operating procedures and manufacturers’ instructions
4.5 Complete the cleaning operation safely and leave the plant in a suitable condition to either receive the next batch of product, or complete shut-down.
Unit 182  
Understand how to control membrane processing in food manufacture

Level: 2  
Credit value: 3  
UAN: M/502/7455

Unit aim
This unit supports workforce development for those who control membrane processing in a food manufacturing business. The unit is designed for use primarily by food production operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know what the requirements are for membrane processing
2. Know how to control membrane processing
3. Know how to avoid and deal with problems

Guided learning hours
It is recommended that 18 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.235K Understand how to control membrane processing in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling membrane processing in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 182 Understand how to control membrane processing in food manufacture

Assessment criteria

**Outcome 1  Know what the requirements are for membrane processing**
The learner can:
1.1 Outline the documentation requirements, and their importance
1.2 State the importance of flux (flow-rate) measurements
1.3 State the meaning of and the difference between the terms ‘permeate’ and ‘retentate’
1.4 Outline the relevant regulatory requirements and mandatory equipment checks that need to be undertaken at start-up
1.5 State why it is important to work within limits of own authority and competence
1.6 Describe the lines and methods of communication, and the importance of following them.

**Outcome 2  Know how to control membrane processing**
The learner can:
2.1 Outline the procedures for start-up, and the importance of following them
2.2 Describe how the process works and the function of each item of plant
2.3 Describe how to access and interpret the relevant
   - plant
   - process
   - equipment
   - materials specifications
2.4 Describe how to maintain adequate equipment performance whilst minimising the impact of operations on:
   - effluent generation
   - the environment.

**Outcome 3  Know how to avoid and deal with problems**
The learner can:
3.1 Outline the procedures for shut-down, and the importance of following them
3.2 Outline the main types of equipment malfunction and their corrective actions
3.3 Describe how faults can impact on operations
3.4 Outline why it is important to use specified chemicals and cleaning procedures.
Unit 183  Control bottle-washing in food manufacture

Level:  2
Credit value:  3
UAN:  T/502/7456

Unit aim
This unit supports workforce development for those who control bottle-washing in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for bottle-washing according to specifications
2. Be able to carry out bottle-washing according to specifications
3. Be able to complete bottle-washing according to specifications and procedures

Guided learning hours
It is recommended that 18 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.236S Control bottle-washing in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling bottle-washing in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 183  Control bottle-washing in food manufacture
Assessment criteria

Outcome 1  Be able to prepare for bottle-washing according to specifications
The learner can:
1.1 Check washer-tank levels, temperatures and chemical concentrations
1.2 Set up equipment
1.3 Make sure that bottles, crates/cases and product are available and fit for use
1.4 Make sure that services meet requirements
1.5 Start up the plant and check that it is running to specification
1.6 Take action in response to operating problems
1.7 Maintain communication throughout the process.

Outcome 2  Be able to carry out bottle-washing according to specifications
The learner can:
2.1 Use equipment and make sure that it is supplied with empty bottles that are not grossly contaminated
2.2 Check for any caustic carry-over using approved methods
2.3 Achieve required throughput
2.4 Take action safely in response to operating problems within the limits of own responsibility.

Outcome 3  Be able to complete bottle-washing according to specifications and procedures
The learner can:
3.1 Follow specified procedures to shut down equipment
3.2 Take action to deal with items that can be recycled or re-worked
3.3 Return surplus materials and consumables to the specified place at the end of the production run
3.4 Dispose of waste
3.5 Make equipment ready for future use after completion of the process
3.6 Complete all records and reports.
Unit 184 Understand how to control bottle-washing in food manufacture

Level: 2
Credit value: 4
UAN: A/502/7488

Unit aim
This unit supports workforce development for those who understand how to control bottle-washing, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are five learning outcomes to this unit. The learner will:
1. Know about the requirements of bottle-washing in food manufacture
2. Know how to prepare for bottle-washing in food manufacture
3. Know how to carry out bottle-washing in food manufacture
4. Know how to deal with problems during bottle-washing in food manufacture
5. Know how to complete bottle-washing in food manufacture

Guided learning hours
It is recommended that 28 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.236S Control bottle-washing in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling bottle-washing in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 184  
**Understand how to control bottle-washing in food manufacture**

Assessment criteria

**Outcome 1  Know about the requirements of bottle-washing in food manufacture**

The learner can:

1.1 Describe the purpose and importance of the process
1.2 State what equipment and tools to use and describe their correct condition and operation
1.3 State the type and quantities of materials to use
1.4 State the reasons for accurate control of temperature when storing and processing food products.

**Outcome 2  Know how to prepare for bottle-washing in food manufacture**

The learner can:

2.1 Describe how to obtain and interpret the relevant process or ingredient specification
2.2 Describe how to obtain the necessary resources for the process
2.3 Explain how to carry out the necessary pre-start checks and why it is important to do so
2.4 Describe how to follow the start-up procedures for the process and why it is important to do so
2.5 Outline the limits of their own authority and competence and why it is important to work within them.

**Outcome 3  Know how to carry out bottle-washing in food manufacture**

The learner can:

3.1 Explain the importance of following work instructions
3.2 Outline how to operate, regulate and shut down the relevant equipment
3.3 Describe how to follow the relevant process control procedures and importance of doing so
3.4 Describe different ways to carry out the process
3.5 Describe how to carry out the process in an efficient manner and importance of doing so.

**Outcome 4  Know how to deal with problems during bottle-washing in food manufacture**

The learner can:

4.1 Describe what action to take when the process specification is not met
4.2 List the common sources of contamination during processing and how to avoid them
4.3 Outline consequences of contamination during processing
4.4 Describe how to seek assistance.
Outcome 5    Know how to complete bottle-washing in food manufacture
The learner can:
5.1    Explain the impact the process has on effluent generation and how to minimise this
5.2    Describe how to deal with items that can be recycled or re-worked
5.3    Explain how to dispose of waste according to specifications and why it is important to do so
5.4    Describe how to make equipment ready for future use
5.5    Explain how to meet reporting, recording and communication requirements and the importance of doing so.
Unit 185  Control canning in food manufacture

Level: 2
Credit value: 2
UAN: A/502/7457

Unit aim
This unit supports workforce development for those who control canning in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for canning according to specifications
2. Be able to start and control canning according to specifications
3. Be able to complete canning

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.240S Control canning in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling canning in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 185 Control canning in food manufacture

Assessment criteria

**Outcome 1  Be able to prepare for canning according to specifications**
The learner can:
1.1 Check the product specifications and production schedule at the specified time
1.2 Set up equipment
1.3 Make sure that product supply is ready to be used for canning.

**Outcome 2  Be able to start and control canning according to specifications**
The learner can:
2.1 Use equipment and make sure that it is supplied with materials and services
2.2 Follow procedures to start up equipment
2.3 Achieve the required output
2.4 Take action in response to operating problems within the limits of own responsibility
2.5 Maintain effective communication.

**Outcome 3  Be able to complete canning**
The learner can:
3.1 Follow procedures to shut down equipment
3.2 Make equipment ready for future use after completion of the canning operations
3.3 Complete all records.
Food Sales and Service units
Unit 186 Select and prepare raw materials in food manufacture

Level: 2
Credit value: 3
UAN: F/502/7458

Unit aim
This unit supports workforce development for those who select and prepare raw materials in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to identify ingredients
2. Be able to select ingredients
3. Be able to prepare ingredients

Guided learning hours
It is recommended that 17 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.241S Select and prepare raw materials in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, selecting and preparing raw materials in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 186  Select and prepare raw materials in food manufacture

Assessment criteria

Outcome 1  Be able to identify ingredients
The learner can:
1.1 Identify the specified ingredients
1.2 Check quantities according to instructions and specifications
1.3 Carry out any calculations necessary to establish quantities of ingredients required to meet production needs.

Outcome 2  Be able to select ingredients
The learner can:
2.1 Select ingredients to meet production needs
2.2 Check the condition of selected ingredients to make sure they are fit for use
2.3 Isolate and report to the relevant personnel ingredients of:
   - substandard quality
   - condition
   - quantity
2.4 Take action where ingredients are not available to:
   - source alternative supplies or
   - establish whether alternative ingredients can be used where permitted
2.5 Store and position ingredients ready for further processing.

Outcome 3  Be able to prepare ingredients
The learner can:
3.1 Check selected ingredients against instructions and specifications
3.2 Carry out according to specification requirements any:
   - blending
   - modification
   - treatment of ingredients
3.3 Place the ingredients in the specified conditions
3.4 Label storage containers, where required, ready for further processing
3.5 Operate within the limits of own authority and capabilities.
Unit 187  Prepare ingredients and store fillings and toppings in food manufacture

Level:  2  
Credit value:  3  
UAN:  K/601/4570

Unit aim
This unit supports workforce development for those who prepare ingredients and store fillings and toppings in a food manufacturing business. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare ingredients
2. Be able to mix ingredients
3. Be able to store supplies and fillings and toppings

Guided learning hours
It is recommended that 25 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.223S Prepare ingredients and store fillings and toppings in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace when preparing ingredients and storing fillings and toppings in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 187 Prepare ingredients and store fillings and toppings in food manufacture

Assessment criteria

Outcome 1  Be able to prepare ingredients
The learner can:
1.1 Select the required ingredients according to instructions and specifications
1.2 Weigh and measure the required ingredients
1.3 Isolate and report any sub-standard ingredients
1.4 Obtain authority to source replacement supplies for sub-standard ingredients where necessary
1.5 Wear the specified personal protective clothing and equipment throughout preparation and production operations.

Outcome 2  Be able to mix ingredients
The learner can:
2.1 Select equipment, checking that it is fit for production needs
2.2 Prepare and mix ingredients according to specifications
2.3 Check that waste is minimised
2.4 Deal with scrap material according to specified procedures.

Outcome 3  Be able to store supplies and fillings and toppings
The learner can:
3.1 Select and check prepared fillings and toppings according to instructions and specifications
3.2 Place prepared fillings and toppings in the specified condition and location
3.3 Where required, label fillings and toppings, ready for further processing
3.4 Monitor the quality of fillings and toppings against specifications
3.5 Monitor the quantity of fillings and toppings against production needs
3.6 Report any quality issues to the relevant people.
Unit 188  Understand how to prepare and store sweet fillings and toppings in food manufacture

Level: 2  Credit value: 3  UAN: M/601/4571

Unit aim
This unit supports workforce development for those who prepare and store sweet fillings and toppings in a food manufacturing business. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to prepare sweet fillings and toppings in food manufacture
2. Know how to store sweet fillings and toppings in food manufacture

Guided learning hours
It is recommended that 16 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.224K Understand how to prepare and store sweet fillings and toppings in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when preparing and storing sweet fillings and toppings in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 188  
Understand how to prepare and store sweet fillings and toppings in food manufacture

Assessment criteria

Outcome 1  
Know how to prepare sweet fillings and toppings in food manufacture

The learner can:

1.1 Outline the basic purpose of the mixing process for flour confectionery fillings and toppings
1.2 Describe the procedure for rejecting and isolating sub-standard fillings and toppings
1.3 Describe the personal protective equipment and working practices required when mixing flour confectionery fillings and toppings
1.4 Outline how these personal protective equipment and working practices are useful in combating the potentially harmful effects of:
   • dust from ingredients
   • allergies from skin-contact with ingredients
1.5 Describe how to report on the quality and quantity of fillings and toppings
1.6 Describe how to arrange for the production of supplies to meet production needs.

Outcome 2  
Know how to store sweet fillings and toppings in food manufacture

The learner can:

2.1 Outline how to avoid contamination during mixing and storing flour confectionery fillings and toppings
2.2 State what might happen if contamination is not avoided during storage
2.3 Outline how to maintain filling condition and deal with time constraints, in readiness for processing
2.4 Describe how to recognise and report flour confectionery fillings and toppings that do not meet specification.
Unit 189  Understand how to prepare and store savoury fillings and toppings in food manufacture

Level: 2
Credit value: 2
UAN: H/601/4616

Unit aim
This unit supports workforce development for those who prepare and store savoury fillings and toppings in a food manufacturing business. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to prepare savoury fillings and toppings in food manufacture
2. Know how to store savoury fillings and toppings in food manufacture

Guided learning hours
It is recommended that 14 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.224K Understand how to prepare and store sweet fillings and toppings in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when preparing and storing sweet fillings and toppings in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 189  Understand how to prepare and store savoury fillings and toppings in food manufacture

Assessment criteria

Outcome 1  Know how to prepare savoury fillings and toppings in food manufacture

The learner can:
1.1 Outline the basic purpose of the mixing process for savoury fillings and toppings
1.2 Describe the preparation techniques for:
   - meat
   - vegetables
   - cheese
   - herbs and spices
1.3 Describe the cooking techniques for:
   - meat
   - vegetables
   - herbs and spices
1.4 Outline the importance of not over-mixing or over-blending savoury fillings
1.5 Outline how to report on the quality and quantity of fillings and toppings
1.6 Outline how to arrange for the production of supplies to meet production needs.

Outcome 2  Know how to store savoury fillings and toppings in food manufacture

The learner can:
2.1 Describe how to avoid contamination during mixing and storing flour confectionery fillings and toppings
2.2 Describe what might happen if contamination is not avoided during storage
2.3 Outline how to maintain filling condition and deal with time constraints, in readiness for processing
2.4 Describe how to recognise and report savoury fillings and toppings that do not meet specification
2.5 Describe the procedure for rejecting and isolating sub-standard fillings and toppings.
Unit 190 Produce individual packs by hand in food operations

Level: 2
Credit value: 3
UAN: R/601/4580

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare to produce packs by hand in food operations
2. Be able to carry out production of packs by hand in food operations
3. Be able to finish production of packs by hand in food operations

Guided learning hours
It is recommended that 14 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, producing individual packs by hand in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 190  
Understand how to prepare and store savoury fillings and toppings in food manufacture

Assessment criteria

Outcome 1  Be able to prepare to produce packs by hand in food operations

The learner can:

1.1 Check packing specifications match the available product and packing materials
1.2 Check that the packing material of is available
1.3 Check that sufficient product is available
1.4 Follow organisational procedures to deal with any problems

Outcome 2  Be able to carry out production of packs by hand in food operations

The learner can:

2.1 Use lifting and handling procedures when carrying out production of individual packs
2.2 Monitor the quality of packs being produced and follow organisational policy to report defects
2.3 Meet time and quality targets for the production of individual packs
2.4 Take positive actions to minimise waste

Outcome 3  Be able to finish production of packs by hand in food operations

The learner can:

3.1 Dispose of surplus materials following the organisation’s procedures
3.2 Dispose of waste and scrap materials following the organisation’s procedures
3.3 Clear and clean the work area ready for future use when production is complete
Unit 191  
Sell food products in a retail environment

Level: 2  
Credit value: 2  
UAN: L/601/8305

Unit aim
This unit supports workforce development for those who sell food products in a retail environment in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to establish customer needs
2. Be able to satisfy customer needs
3. Be able to process the sale of food and drink products

Guided learning hours
It is recommended that 14 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.405S Sell food products in a retail environment.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, selling food products in a retail environment. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 191  

Sell food products in a retail environment

Assessment criteria

Outcome 1  
Be able to establish customer needs

The learner can:

1.1  Greet the customer politely
1.2  Find out what type and quantity of food and drink product the customer wants
1.3  Offer suitable alternatives when food or drink products are unavailable or when the customer is undecided
1.4  Show customers their selected products to confirm that they are what they want
1.5  Wrap or pack the products.

Outcome 2  
Be able to satisfy customer needs

The learner can:

2.1  Provide information to customers about the safe transport, storage and keeping of products, where this is requested or advisable
2.2  Conduct the sale courteously, and at a pace which is appropriate to the needs of the customer and the trading conditions.

Outcome 3  
Be able to process the sale of food and drink products

The learner can:

3.1  Confirm the price and the method of payment with the customer
3.2  Process payment or credit according to company policy
3.3  Keep payments and stock safe throughout transaction
3.4  Report mistakes and problems to the relevant person and take action to correct
3.5  Thank the customer and say goodbye politely.
Unit 192  Understand how to sell food products in a retail environment

Level: 2  
Credit value: 3  
UAN: R/601/8306

Unit aim  
This unit supports workforce development for those who understand how to sell food products in a retail environment, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes  
There are three learning outcomes to this unit. The learner will:
1. Know how to establish the customer's needs  
2. Know how to satisfy the customer's needs  
3. Know how to process and complete the sale of food and drink products

Guided learning hours  
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.406K Understand how to sell food products in a retail environment.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when selling food products in a retail environment. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 192  Understand how to sell food products in a retail environment

Assessment criteria

Outcome 1  Know how to establish the customer's needs
The learner can:
1.1 Explain why it is important to confirm the exact quantities, type and quality of food and drink products the customer wants
1.2 Outline the importance of working within the customer’s price range.

Outcome 2  Know how to satisfy the customer's needs
The learner can:
2.1 Explain the importance of customer service to retail operations
2.2 State why it is important to provide suitable alternatives when the customer’s first choice cannot be met and what alternatives can be offered
2.3 Describe why it is important not to cause conflict as a result of the customer’s change of mind
2.4 State when to provide supporting information about the safe transport, storage and keeping of food and drink products.

Outcome 3  Know how to process and complete the sale of food and drink products
The learner can:
3.1 State the company procedures for dealing with methods of payment available to customers
3.2 Describe ways to keep payments and stock safe
3.3 Explain what legal tender is
3.4 Outline the basic trading rights of the customer and trader
3.5 Describe the process of taking customer orders for products not in stock
3.6 State the limits of own authority and the consequences of operating outside these limits
3.7 Outline the importance of communication and the implications of not communicating effectively.
Unit 193     Display food products in a retail environment

Level: 2
Credit value: 3
UAN: Y/601/8307

Unit aim
This unit supports workforce development for those who display food products in a retail environment in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Be able to prepare to display food and drink products
2. Be able to label displays of food and drink products
3. Be able to arrange and maintain food and drink products for display
4. Be able to empty and clean the food and drink product display

Guided learning hours
It is recommended that 23 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.409S Display food products in a retail environment.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, displaying food products in a retail environment. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 193 Display food products in a retail environment

Assessment criteria

Outcome 1 Be able to prepare to display food and drink products
The learner can:
1.1 Check that the display area, equipment and accessories are clean and take prompt action on finding any problems
1.2 Assemble and check products and additional materials and prepare them for use
1.3 Check the food and drink products available for display and estimate the quantities required
1.4 Select the products which are most suitable to display with regard to shelf-life, demand, appeal and promotional requirements
1.5 Prepare the display to ensure maximum appeal and to comply with food safety requirements.

Outcome 2 Be able to label displays of food and drink products
The learner can:
2.1 Confirm requirements for labelling products with the relevant people
2.2 Confirm that label information is correct and check with the relevant people that it conforms to legal and standard operational requirements
2.3 Position labels for products
2.4 Ensure that labels are legible, visible to customers, and securely positioned in the specified place.

Outcome 3 Be able to arrange and maintain food and drink products for display
The learner can:
3.1 Check and take steps to ensure that the display area meets the requirements of hygiene and food safety
3.2 Transfer products safely to the display area according to instructions and specifications
3.3 Arrange and replace food and drink products and additional materials in a way that is attractive to customers and meets the requirements of hygiene and food safety
3.4 Reposition and reorganise the position of products and accessories to accommodate product unavailability to maintain presentation and to meet trading conditions
3.5 Monitor displays according to instructions and specifications
3.6 Carry out emergency cleaning procedures
3.7 Take action to address any product or display-related problem.

Outcome 4 Be able to empty and clean the food and drink product display
The learner can:
4.1 Withdraw products from the display according to instructions and store according to specified procedures
4.2 Identify and select the appropriate cleaning materials for display equipment and accessories
4.3 Clean display surfaces, equipment and accessories
4.4 Safely store cleaning materials for further use
4.5 Take action to address any display, cleaning or product related problems.
Unit 194 Understand how to display food products in a retail environment

Level: 2
Credit value: 2
UAN: D/601/8308

Unit aim
This unit supports workforce development for those who understand how to display food products in a retail environment, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are five learning outcomes to this unit. The learner will:
1. Know how to prepare to create food product displays
2. Know how to create a food and drink display
3. Know the importance of labelling in food and drink displays
4. Know how to monitor and maintain food and drink displays
5. Know how to deal with problems in displaying products

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.410K Understand how to display food products in a retail environment.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when displaying food products in a retail environment. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 194 Understand how to display food products in a retail environment

Assessment criteria

Outcome 1 Know how to prepare to create food product displays
The learner can:
1.1 Explain how to source product specifications and display information
1.2 Describe the ways and the importance of reviewing the display area before assembling materials for the display
1.3 Describe ways and the importance of estimating the quantities and size of products to be used for display
1.4 Explain why it is important to select food and drink products for display to suit specific objectives
1.5 State the controls involved in the display of food and drink products.

Outcome 2 Know how to create a food and drink display
The learner can:
2.1 State the basic principles for display and presentation of food and drink products
2.2 Describe how to use assembly and dismantling equipment safety
2.3 Describe what accessories can and should be used for effective displays
2.4 Outline types of products offered for sale and their ingredients.

Outcome 3 Know the importance of labelling in food and drink displays
The learner can:
3.1 Explain why labelling is important
3.2 Outline the key features of legal and operational requirements for labelling
3.3 Describe how to position labels to give correct information why that is important
3.4 Describe how to check labelling information against product specification and sales details.

Outcome 4 Know how to monitor and maintain food and drink displays
The learner can:
4.1 Explain why displays may change as part of the maintenance process
4.2 Explain why stock rotation is important
4.3 Describe the types and purposes of cleaning materials appropriate for display equipment and accessories
4.4 Describe the safe handling procedures and application of cleaning materials for display equipment and accessories
4.5 Describe how to access and interpret the cleaning schedule for display equipment and accessories.

Outcome 5 Know how to deal with problems in displaying products
The learner can:
5.1 Describe the contingencies for display equipment and accessory failure
5.2 Describe how to recognise and report products that do not meet specification
5.3 State the procedure for rejecting and isolating failed products.
Unit 195  
Prepare to operate a counter/take away service in food operations

**Level:** 2  
**Credit value:** 2  
**UAN:** D/601/4582

**Unit aim**  
This unit supports workforce development for those who preparing to provide a counter/take away service in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

**Learning outcomes**  
There are two learning outcomes to this unit. The learner will:

1.   Be able to prepare work areas and equipment according to Standard Operating Procedures (SOPs)  
2.   Be able to clear work areas and equipment according to Standard Operating Procedures

**Guided learning hours**  
It is recommended that 4 hours should be allocated for this unit, although patterns of delivery are likely to vary.

**Details of the relationship between the unit and relevant national standards**  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.501S Prepare and clear areas for counter/take-away service.

**Support of the unit by a sector or other appropriate body**  
This unit is endorsed by Improve.

**Assessment**  
This unit is designed to assess the skills of learners in the workplace, preparing to provide a counter/take away service in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 195  Prepare to operate a counter/take away service in food operations

Assessment criteria

Outcome 1  Be able to prepare work areas and equipment according to Standard Operating Procedures (SOPs)

The learner can:
1.1  Check that the work area and equipment are food safe and ready for use
1.2  Check that sufficient stocks of service items are available for use
1.3  Switch on appropriate service equipment in time to reach the recommended operating temperature
1.4  Prepare and display condiments and accompaniments ready for service according to SOP
1.5  Display promotional materials ready for customer use
1.6  Check that refuse and waste food containers are clean and ready for use
1.7  Display food immediately before service.

Outcome 2  Clear work areas and equipment according to Standard Operating Procedures

The learner can:
2.1  Clean service equipment and work area after use
2.2  Assemble any reusable items from the food service for cleaning or storage
2.3  Store unused condiments and accompaniments for future use
2.4  Dispose of rubbish, used disposables and waste food.
Unit 196  Understand how to prepare to operate a counter/take away service in food operations

Level: 2
Credit value: 2
UAN: J/601/4589

Unit aim
This unit supports workforce development for those who understand how to prepare to operate a counter/take away service in food manufacture, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to prepare work areas and equipment ready for service according to Standard Operating Procedures (SOPs)
2. Know how to clear dining and service areas after service according to Standard Operating Procedures (SOPs)

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.502K Understand how to prepare to operate a counter-take away service in food operations.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when understanding how to prepare to operate a counter/take away service in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 196  Understand how to prepare to operate a counter/take way service in food operations

Assessment criteria

Outcome 1  Know how to prepare work areas and equipment ready for service according to Standard Operating Procedures (SOPs)

The learner can:
1.1 Describe the importance of food safe working and practices when preparing work areas and equipment
1.2 Describe the importance of having the correct equipment available for service
1.3 State why waste must be handled and disposed of correctly
1.4 Outline the importance of maintaining presentation standards in the display of food
1.5 Describe the importance of displaying hot and cold food according to SOPs
1.6 Describe the importance of checking expiry dates on appropriate food and drink items
1.7 State why promotional materials should be checked before use
1.8 Describe the types of unexpected situations that may occur when preparing areas and how to deal with these.

Outcome 2  Know how to clear dining and service areas after service according to Standard Operating Procedures (SOPs)

The learner can:
2.1 Outline the importance of the food safe working practices when clearing work areas and equipment
2.2 State why certain electrical and gas equipment should be turned off after service
2.3 State why waste must be handled and disposed of correctly
2.4 Detail reasons for returning all perishable food and drink items to the kitchen and storage area immediately after service
2.5 Describe why all service areas should be left clean after service
2.6 Describe the types of unexpected situations that may occur when clearing areas and how to deal with these.
Unit 197  Operate a counter/take-away service in food operations

Level: 2  Credit value: 2  UAN: F/601/4591

Unit aim
This unit supports workforce development for those who operate a counter/take away service in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to provide customers with a counter/take-away service according to Standard Operating Procedures (SOPs)
2. Be able to maintain work areas and equipment according to Standard Operating Procedures (SOPs)

Guided learning hours
It is recommended that 4 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.5035 Operate a counter/take-away service in food operations.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, operating a counter/take away service in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 197  Operate a counter/take-away service in food operations

Assessment criteria

Outcome 1  Be able to provide customers with a counter/take-away service according to Standard Operating Procedures (SOPs)

The learner can:
1.1  Provide customers with information that meets their needs and promotes the organisation's products and services
1.2  Find out what the customers needs are, informing them about any waiting time
1.3  Process the order promptly
1.4  Serve food and drink items at the recommended temperatures
1.5  Make sure there are appropriate condiments and accompaniments available for customers

Outcome 2  Be able to maintain work areas and equipment according to Standard Operating Procedures (SOPs)

The learner can:
2.1  Keep the work area tidy, hygienic and free from rubbish and food debris during service
2.2  Maintain enough stocks of clean service items
2.3  Restock with food and drink items when necessary
2.4  Display and store food and drink items
2.5  Clear the work area of used service items
2.6  Dispose of rubbish, used disposable items and food waste as required
Unit 198  Understand how to operate a counter/take-away service in food operations

Level: 2  
Credit value: 2  
UAN: D/601/4596

Unit aim
This unit supports workforce development for those who understand how to operate a counter/take-away service in food manufacture, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to provide customers with a counter/take-away service according to Standard Operating Procedures (SOPs)
2. Know how to maintain work areas and equipment according to Standard Operating Procedures (SOPs)

Guided learning hours
It is recommended that 12 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.504K Understand how to provide a counter/take-away service.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when understanding how to operate a counter/take-away service in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 198  Understand how to operate a counter/take-away service in food operations

Assessment criteria

Outcome 1  Know how to provide customers with a counter/take-away service according to Standard Operating Procedures (SOPs)

The learner can:
1.1 Outline the importance of food safe working practices for serving customers at the counter
1.2 Detail the importance of using separate serving equipment for each food item
1.3 Describe the importance of serving food and drink items at the correct temperature
1.4 State why portions must be controlled when serving customers
1.5 State why information given to customers must be accurate
1.6 Describe the types of unexpected situations that may occur when serving customers and how to deal with these.

Outcome 2  Know how to maintain work areas and equipment according to Standard Operating Procedures (SOPs)

The learner can:
2.1 State the food safe working practices for cleaning and why these are important
2.2 State why counter service preparation areas and dining areas must be kept tidy and free from rubbish and food debris throughout service
2.3 State why waste must be handled and disposed of correctly
2.4 Outline why a constant stock of service items should be maintained
2.5 Describe the types of unexpected situations that may occur when clearing away and how to deal with these.
Unit 199 Prepare to operate a table/tray service in food operations

Level: 2
Credit value: 2
UAN: M/601/4599

Unit aim
This unit supports workforce development for those who prepare to operate a table/tray service in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to prepare work areas and equipment ready for service according to Standard Operating Procedures (SOPs)
2. Be able to clear dining and service areas after service according to Standard Operating Procedures (SOPs)

Guided learning hours
It is recommended that 4 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.505 Prepare and clear areas for table/tray service.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, preparing to operate a table/tray service in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 199  Prepare to operate a table/tray service in food operations

Assessment criteria

Outcome 1  Be able to prepare work areas and equipment ready for service according to Standard Operating Procedures (SOPs)

The learner can:
1.1  Check that service areas and equipment are ready for use, including tables and trays
1.2  Check that sufficient stock of service items are ready for use
1.3  Prepare condiments and accompaniments ready for use and store them safely
1.4  Check that refuse and waste food containers are hygienic, empty and ready for use
1.5  Check that menus and promotional items are ready for use

Outcome 2  Be able to clear dining and service areas after service according to Standard Operating Procedures (SOPs)

The learner can:
2.1  Collect all service items for cleaning or storage
2.2  Prepare used or soiled table linen for laundry or disposal
2.3  Store food items, condiments and accompaniments
2.4  Dispose of rubbish and waste food
2.5  Ensure that service equipment, work areas and dining furniture are ready for future use.
Unit 200  

Understand how to prepare to operate a table/tray service in food operations

Level: 2
Credit value: 2
UAN: H/601/4602

Unit aim
This unit supports workforce development for those who understand how to prepare to operate a table/tray away service in food manufacture, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to prepare work areas and equipment ready for service according to Standard Operating Procedures (SOPs)
2. Know how to clear dining and service areas after service according to Standard Operating Procedures (SOPs)

Guided learning hours
It is recommended that 12 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.506K Understand how to prepare to operate a table/tray service in food operations.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when understanding how to prepare to operate a table/tray away service in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 200  Understand how to prepare to operate a table/tray service in food operations

Assessment criteria

**Outcome 1**  Know how to prepare work areas and equipment ready for service according to Standard Operating Procedures (SOPs)

The learner can:
1.1 State the food safe working practices for preparing service areas and equipment
1.2 Detail the Standard Operating Procedures (SOPs) for serving food and drink
1.3 State why waste must be handled and disposed of correctly
1.4 State why condiments and accompaniments should be prepared ready for service
1.5 State when to prepare service areas and equipment
1.6 State why menus and promotional items should be checked before use
1.7 Outline why a constant stock of food service items should be maintained
1.8 Describe the types of unexpected situations that may occur when preparing and clearing areas for service and how to deal with these.

**Outcome 2**  Know how to clear dining and service areas after service according to Standard Operating Procedures (SOPs)

The learner can:
2.1 State the safe and hygienic working practices for clearing dining and service areas
2.2 Detail why all food service areas should be left clean after service
2.3 State why certain electrical equipment should be turned off after service
2.4 Describe the types of unexpected situations may occur when clearing areas after service and how you should deal with these.
Unit 201 Operate a table/tray service in food operations

Level: 2  
Credit value: 2  
UAN: M/601/4604

Unit aim  
This unit supports workforce development for those who operate a table/tray service in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes  
There are two learning outcomes to this unit. The learner will:
1. Be able to provide customers with information and process orders according to Standard Operating Procedures (SOPs)
2. Be able to serve customers according to Standard Operating Procedures (SOPs)

Guided learning hours  
It is recommended that 4 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.507S Operate a table/tray service in food operations.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the skills of learners in the workplace, operating a table/tray service in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 201  Operate a table/tray service in food operations

Assessment criteria

Outcome 1  Be able to provide customers with information and process orders according to Standard Operating Procedures (SOPs)

The learner can:
1.1 Help customers with dining arrangements according to the service style
1.2 Make sure customers have access to the correct menus and information
1.3 Answer questions customers may have giving them information which meets their needs and promotes the organisation's products and services
1.4 Record and process the customers' orders.

Outcome 2  Be able to serve customers according to Standard Operating Procedures (SOPs)

The learner can:
2.1 Serve the customers with correct orders
2.2 Provide customers with the service items, condiments and accompaniments appropriate to their food
2.3 Serve food and drink items with clean, hygienic and undamaged equipment of the appropriate type
2.4 Keep customer dining and service areas tidy, hygienic and free from rubbish and food debris
2.5 Clear customer dining areas of soiled and unused service items at the appropriate times
2.6 Maintain sufficient stocks of clean service items, condiments and accompaniments throughout the service.
Unit 202  Understand how to operate a table/tray service in food operations

Level: 2
Credit value: 2
UAN: T/601/4605

Unit aim
This unit supports workforce development for those who understand how to operate a table/tray away service in food manufacture, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to provide customers with information and process orders according to Standard Operating Procedures (SOPs)
2. Know how to serve customers according to Standard Operating Procedures (SOPs)

Guided learning hours
It is recommended that 12 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.508K Understand how to provide a table/tray service.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when understanding how to operate a table/tray away service in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 202  Understand how to operate a table/tray service in food operations

Assessment criteria

Outcome 1  Know how to provide customers with information and process orders according to Standard Operating Procedures (SOPs)

The learner can:
1.1 Outline Standard Operating Procedures for
   - customer care
   - service style
   - greeting and seating customers
   - food safe working practices and their importance
1.2 State why information given to customers must be accurate
1.3 Detail the importance of taking customer orders accurately, and how to check them
1.4 Detail the importance of promoting the service to customers
1.5 Detail which condiments and accompaniments go with each dish
1.6 Describe the importance of using the appropriate equipment when serving food and drink items to customers
1.7 State the importance of checking that food service equipment is ready for use
1.8 Describe the types of unexpected situations that may occur when taking orders and serving food, and how to deal with these.

Outcome 2  Know how to serve customers according to Standard Operating Procedures (SOPs)

The learner can:
2.1 Describe the importance of food safe working practices for maintaining dining and service areas
2.2 Detail why dining and service areas must be kept tidy and free from rubbish and food debris
2.3 State how to handle and dispose of waste
2.4 State why a constant stock of table and service items should be maintained.
Unit 203  Finish bake-off products

Level: 2  
Credit value: 3  
UAN: F/601/4607

Unit aim
This unit supports workforce development for those who finish bake-off products in a food processing business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare to finish bake-off product
2. Be able to carry out finishing of bake-off products
3. Be able to complete finishing of bake-off products

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.711S Finish bake-off products.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, finish bake-off products. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 203 Finish bake-off products
Assessment criteria

Outcome 1 Be able to prepare to finish bake-off product
The learner can:
1.1 Identify the finishing to be used on the bake-off product
1.2 Obtain finishing and ensure it is fit for use
1.3 Obtain the tools and equipment required to apply finishing
1.4 Obtain bake-off products to be finished and ensure they are fit for use
1.5 Maintain food-safe working conditions.

Outcome 2 Be able to carry out finishing of bake-off products
The learner can:
2.1 Apply finishing to bake-off product according to product specification
2.2 Maintain the condition of the work-station throughout the process
2.3 Ensure that the required amount of finishing is applied to the bake-off product
2.4 Take action when the wrong amount of finishing is used
2.5 Keep bake-off product in saleable condition while finishing.

Outcome 3 Be able to complete finishing of bake-off products
The learner can:
3.1 Ensure that the finished bake-off product is acceptable for display purposes based on company requirements
3.2 Place finished products that meet specifications in a suitable storage area
3.3 Follow set procedures to deal with products that do not meet specifications
3.4 Dispose of waste materials according to set procedures
3.5 Clean tools and equipment and put them away
3.6 Maintain food-safe working conditions.
Unit 204  Understanding how to finish bake off products

Level: 2
Credit value: 2
UAN: J/601/4611

Unit aim
This unit supports workforce development for those who finish bake-off products in a food business. The unit is designed for use primarily by operators and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to prepare to finish bake-off products
2. Know how to finish bake-off products
3. Know how to complete finishing of bake-off products

Guided learning hours
It is recommended that 12 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, finishing bake-off products. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 204  Understand how to finish bake off products

Assessment criteria

Outcome 1  Know how to prepare to finish bake-off products
The learner can:
1.1 Describe the company's food safety management procedures and the reasons for following them while finishing bake-off products
1.2 Describe the facilities required to carry out finishing of bake-off products
1.3 Describe how to prepare the facilities used for finishing bake-off products
1.4 Describe how to select the required finishing
1.5 Describe how to select the appropriate tools and equipment for applying a finishing
1.6 Describe how to assess the quality of materials used in finishing bake-off products

Outcome 2  Know how to finish bake-off products
The learner can:
2.1 Explain why presentation is important in finishing bake-off products
2.2 Describe how to assess the saleability of finished bake-off products
2.3 State the reasons for following safe working practices

Outcome 3  Know how to complete finishing of bake-off products
The learner can:
3.1 Describe how to store finished bake-off products
3.2 Describe how to dispose of waste and explain why it is important to do so
3.3 Describe the importance of and how to carry out:
   • recording
   • reporting
   • communication
Support Operations units
Unit 205  Assemble and process products for food service

Level: 2  
Credit value: 2  
UAN: D/601/4615

Unit aim
This unit supports workforce development for those who assemble and process products for food service in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to assemble service products according to specifications and instructions
2. Be able to process service products according to specifications and instructions

Guided learning hours
It is recommended that 13 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.511S Assemble and process products for food service.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, assembling and processing products for food service. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 205  
Assemble and process products for food service

Assessment criteria

**Outcome 1  Be able to assemble service products according to specifications and instructions**

The learner can:

1.1  Ensure the working area is clean and in the correct condition for use
1.2  Identify and select fillings
1.3  Assemble service products to specification to meet customers’ needs
1.4  Ensure that working practices minimise waste and that scrap material is dealt with according to specified procedures
1.5  Position assembled products for further processing
1.6  Take action on discovering any problems or variances.

**Outcome 2  Be able to process service products according to specifications and instructions**

The learner can:

2.1  Check the condition of assembled products according to specifications and instructions
2.2  Check the operating condition of processing equipment
2.3  Process assembled products to specification to meet customers’ needs
2.4  Maintain the condition of processed products
2.5  Position processed products for further processing
2.6  Take action on discovering any problems or variances.
Unit 206  Understand how to assemble and process products for food service

Level: 2  
Credit value: 2  
UAN: M/601/4618

Unit aim
This unit supports workforce development for those who assemble and process products in a food service business. The unit is designed for use primarily by food service operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know what the requirements are for the assembly and processing of food service products
2. Know how to maintain high standards of quality in food service products

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.512K Understand how to assemble and process products for food service.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when assembling and processing products for food service. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 206  Understand how to assemble and process products for food service

Assessment criteria

Outcome 1  Know what the requirements are for the assembly and processing of food service products

The learner can:
1.1 Describe how to source and read product specifications and recipe information
1.2 Outline the specified use of processing techniques for service products
1.3 Describe why consistent assembly for portion control is important.

Outcome 2  Know how to maintain high standards of quality in food service products

The learner can:
2.1 Outline the common factors affecting the quality of service products
2.2 Describe the common sources of service product contamination during assembly and processing
2.3 Outline how to avoid contamination during assembly and processing
2.4 Describe what might happen if contamination is not avoided
2.5 Describe how to recognise and report service products that do not meet specification
2.6 State the procedure for rejecting and isolating sub-standard service products.
Unit 207  Store and retrieve information

Level:  2  
Credit value:  3  
UAN:  R/601/2490

Unit aim
This unit is about storing and retrieving information securely and within the confidentiality requirements of the organisation.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand processes and procedures for storing and retrieving information
2. Be able to store information
3. Be able to retrieve information

Guided learning hours
It is recommended that 17 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.
Unit 207  Store and retrieve information

Assessment criteria

Outcome 1  Understand processes and procedures for storing and retrieving information
The learner can:
1.1 Explain the purpose of storing and retrieving required information
1.2 Describe different information systems and their main features
1.3 Explain the purpose of legal and organisational requirements for the security and confidentiality of information
1.4 Explain the purpose of confirming information to be stored and retrieved
1.5 Describe ways of checking information for accuracy
1.6 Explain the purpose of checking information for accuracy
1.7 Explain the purpose of providing information to agreed format and timescales
1.8 Describe the types of information that may be deleted
1.9 Describe problems that may occur with information systems and how to deal with them, when necessary

Outcome 2  Be able to store information
The learner can:
2.1 Identify, confirm and collect information to be stored
2.2 Follow legal and organisational procedures for security and confidentiality of information to be stored
2.3 Store information in approved locations
2.4 Check and update stored information, if required
2.5 Delete stored information, if required
2.6 Deal with, or refer problems, if required

Outcome 3  Be able to retrieve information
The learner can:
3.1 Confirm and identify information to be retrieved
3.2 Follow legal and organisational procedures for security and confidentiality of information
3.3 Locate and retrieve the required information
3.4 Check and update information, if required
3.5 Provide information in the agreed format and timescale
3.6 Deal with, or refer problems if required
Unit 208  Communicate information and knowledge

Level: 2  
Credit value: 3  
UAN: H/600/9724

Unit aim  
This unit is about communicating information and knowledge to a wide range of people.

Learning outcomes  
There are four learning outcomes to this unit. The learner will:
1. Be able to identify the information required, and its reliability, for communication
2. Be able to understand communication techniques and methods
3. Be able to communicate information and knowledge using appropriate techniques and methods
4. Be able to adapt communication techniques and methods according to target audience response

Guided learning hours  
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.
Unit 208 Communicate information and knowledge

Assessment criteria

Outcome 1 Be able to identify the information required, and its reliability, for communication

The learner can:
1.1 Explain the information and knowledge that needs communicating.
1.2 Identify the target audience requiring the information and knowledge.

Outcome 2 Be able to understand communication techniques and methods

The learner can:
2.1 Identify what techniques and methods can be used to communicate information and knowledge.
2.2 Explain how to select the most appropriate technique and method.

Outcome 3 Be able to communicate information and knowledge using appropriate techniques and methods

The learner can:
3.1 Communicate to target audience using the appropriate techniques and methods.
3.2 Explain how the target audience has received and understood the information communicated.

Outcome 4 Be able to adapt communication techniques and methods according to target audience response

The learner can:
4.1 Explain how to modify communication techniques and methods in response to verbal and non-verbal feedback
Unit 209  Lift and handle materials safely in food operations

Level:  2  
Credit value:  2  
UAN:  T/601/8301

Unit aim
This unit supports workforce development for those who lift and handle materials safely in a food business. The unit is designed for use primarily by Operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to follow lifting and handling instructions
2. Be able to operate handling equipment
3. Be able to transport materials safely

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit HS.104S Lift and handle materials safely in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, lifting and handling materials safely in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 209  Lift and handle materials safely in food operations

Assessment criteria

**Outcome 1  Be able to follow lifting and handling instructions**
The learner can:
1.1 Wear personal protective equipment
1.2 Follow organisations standards and instruction on health and safety, food safety and environmental safety
1.3 Assess risks to yourself, others and products before lifting and handling
1.4 Use the specified lifting and handling techniques
1.5 Seek assistance when required.

**Outcome 2  Be able to operate handling equipment**
The learner can:
2.1 Ensure that handling equipment is fit for use
2.2 Return handling equipment to the specified place after use.

**Outcome 3  Be able to transport materials safely**
The learner can:
3.1 Ensure that materials are of the specified quantity and quality
3.2 Use the specified transport routes for moving materials
3.3 Avoid injury to yourself and others
3.4 Complete all records.
Unit 210  Understand how to lift and handle materials safely in food operations

Level:          2  
Credit value:  2  
UAN:            A/601/8302

Unit aim  
This unit supports workforce development for those who need to understand how to lift and handle materials safely in a food business. The unit is designed for use primarily by Operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes  
There are three learning outcomes to this unit. The learner will:
1. Know the health and safety standards for lifting, moving and handling materials  
2. Knows how to move and handle materials  
3. Know the limits of ones authority and communication methods

Guided learning hours  
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit HS.105K Understand lifting and handling materials safely in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when lifting and handling materials safely in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 210 Understand how to lift and handle materials safely in food operations

Assessment criteria

Outcome 1 Know the health and safety standards for lifting, moving and handling materials

The learner can:
1.1 State the health safety and food safety standards for moving and handling materials
1.2 State the importance of following relevant health safety and food safety standards
1.3 State the importance of wearing the appropriate personal protective equipment
1.4 State the importance of using the specified manual handling techniques
1.5 State safe lifting limits for yourself and any equipment that you use
1.6 Outline the safety checks to be carried out on lifting equipment
1.7 State the importance of carrying out safety checks on lifting equipment

Outcome 2 Knows how to move and handle materials

The learner can:
2.1 State the importance of checking that the load is suitable to be moved
2.2 State the importance of using the right handling equipment for the task
2.3 State the importance of using specified transport routes
2.4 Outline the hazards to yourself and others when moving and handling materials
2.5 State the action to be taken if materials or handling equipment are defective
2.6 State rules and procedures that apply to the different work areas that affect you when moving and handling materials.

Outcome 3 Know the limits of ones authority and communication methods

The learner can:
3.1 State the limits of own authority and competence
3.2 State why it is important to work within limits of own authority
3.3 State how to determine the requirements of handling and moving in terms of assistance and use of equipment
3.4 Outline methods of recording information and communications
3.5 State effective methods of recording information and communication
3.6 State why it is important to communicate information.
Unit 211  Contribute to the maintenance of plant and equipment in food operations

Level: 2  
Credit value: 3  
UAN: T/601/2921

Unit aim
This unit supports workforce development for those who contribute to the maintenance of plant and equipment in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to prepare for the maintenance of plant and equipment
2. Be able to carry out maintenance of plant and equipment

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit EM.107S Contribute to the maintenance of plant and equipment in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, contributing to the maintenance of plant and equipment in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 211 Contribute to the maintenance of plant and equipment in food operations

Assessment criteria

Outcome 1 Be able to prepare for the maintenance of plant and equipment
The learner can:
1.1 Access and interpret information and instructions
1.2 Evaluate the impact of instructions on operations
1.3 Ensure resources required are available and fit for use
1.4 Prepare the work area in a manner which promotes effective and safe work practices
1.5 Prioritise own work activities to achieve optimum productivity within the limits of own contribution
1.6 Ensure that maintenance activities are correctly authorised
1.7 Establish effective spoken and written communication with managers and colleagues
1.8 Complete and process the necessary documentation.

Outcome 2 Be able to carry out maintenance of plant and equipment
The learner can:
2.1 Monitor and adhere to food safety, health and safety environmental procedures
2.2 Ensure that maintenance activities are undertaken using correct tools, materials, equipment and techniques
2.3 Identify defects and discrepancies in components and take the necessary corrective action
2.4 Minimise the wastage of consumable items and other materials and dispose of non-reusable materials correctly
2.5 Evaluate maintenance activities for effectiveness
2.6 Make recommendations to relevant people about identified improvements
2.7 Ensure that work which cannot be completed within the agreed schedule is recorded and reported to the relevant people
2.8 Maintain effective spoken and written communication with your managers and colleagues
2.9 Complete and process documentation
2.10 Leave plant and equipment safe, tidy and fit for future use.
Unit 212 Understand how to contribute to the maintenance of plant and equipment in food operations

Level: 2  
Credit value: 3  
UAN: A/601/2922

Unit aim
This unit supports workforce development for those who understand how to contribute to the maintenance of plant and equipment, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Know about preparing for maintenance
2. Know how to carry out maintenance
3. Know how to deal with maintenance issues and problems
4. Know how to complete maintenance procedures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit EM.108K Understand how to contribute to the maintenance of plant and equipment in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to the maintenance of plant and equipment in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 212 Understand how to contribute to the maintenance of plant and equipment in food operations

Assessment criteria

Outcome 1 Know about preparing for maintenance
The learner can:
1.1 Outline the importance of working to the health and safety and food safety standards
1.2 Describe the activities that can be carried out within own limits of authority
1.3 List the equipment required for maintenance
1.4 Describe the importance of meeting maintenance documentation requirements
1.5 Outline how to make the plant or equipment safe before maintenance
1.6 Describe how to access types of information to aid maintenance.

Outcome 2 Know how to carry out maintenance
The learner can:
2.1 Outline how and when to carry out maintenance activities
2.2 Describe how the tools and equipment selected are used to complete the tasks
2.3 Describe how to communicate events and issues to relevant people
2.4 State the procedure for carrying out the maintenance event hygienically
2.5 Describe how available information is used to aid the maintenance
2.6 State how to record an event in the maintenance log.

Outcome 3 Know how to deal with maintenance issues and problems
The learner can:
3.1 Explain the importance of maintenance and implications for not carrying it out
3.2 Explain why materials, tools and equipment must be fit for purpose, and how to deal with any defects
3.3 Describe what to do if there are unexpected problems during maintenance
3.4 Describe the effects different of types maintenance have on the operations
3.5 Explain how planned maintenance can reduce downtime.

Outcome 4 Know how to complete maintenance procedures
The learner can:
4.1 Explain the importance of minimising waste
4.2 Outline how to dispose of waste safely and effectively
4.3 Explain the importance of leaving plant and equipment safe, clean and tidy for future use
4.4 Explain how to check the effectiveness of maintenance activities.
Unit 213

Prepare to receive goods and materials in food operations

Level: 2
Credit value: 1
UAN: F/502/7461

Unit aim
This unit supports workforce development for those who prepare to receive goods and materials in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare and update documentation
2. Be able to prepare work areas and equipment to receive deliveries
3. Be able to ensure vehicle and goods and materials conform to specifications

Guided learning hours
It is recommended that 8 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.101S Prepare to receive goods and materials in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, preparing to receive goods and materials in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 213  Prepare to receive goods and materials in food operations

Assessment criteria

Outcome 1  Be able to prepare and update documentation
The learner can:
1.1  Check delivery documentation to ensure that it is complete, accurate and up to date
1.2  Check that deliveries match schedules or documentation.

Outcome 2  Be able to prepare work areas and equipment to receive deliveries
The learner can:
2.1  Ensure that the receiving area is clean and tidy with sufficient storage space for expected deliveries
2.2  Ensure that handling equipment is available and suitable for use
2.3  Identify and record problems with equipment
2.4  Take action within your limits of authority to correct problems or report to the relevant people
2.5  Ensure and inform relevant people when unloading is about to begin.

Outcome 3  Be able to ensure vehicle and goods and materials conform to specifications
The learner can:
3.1  Check the condition and temperature of the delivery vehicle
3.2  Carry out required sampling
3.3  Take action and follow company procedures for deliveries that do not conform to specification.
Unit 214  Receive goods and materials in food operations

Level:  2
Credit value:  2
UAN:  A/502/7460

Unit aim
This unit supports workforce development for those who receive goods and materials in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to check and handle deliveries of goods and materials
2. Be able to update records and stock control systems
3. Be able to complete goods and material intake

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.102S Receive goods and materials in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, receiving goods and materials in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 214 Receive goods and materials in food operations

Assessment criteria

**Outcome 1 Be able to check and handle deliveries of goods and materials**
The learner can:
1.1 Check that goods and materials match the documentation
1.2 Identify and deal with discrepancies, damage or loss within your limit of authority and report your actions to the relevant person
1.3 Complete any necessary preparation and labelling
1.4 Move and handle goods safely and hygienically following standards and instructions
1.5 Carry out operation in optimum time minimising damage to stock
1.6 Deliver the consignment to the appropriate place.

**Outcome 2 Be able to update records and stock control systems**
The learner can:
2.1 Record discrepancies
2.2 Report reasons for refusing goods and communicate information to the relevant person
2.3 Demonstrate stock control systems
2.4 Complete documentation and ensure that it is up to date.

**Outcome 3 Be able to complete goods and material intake**
The learner can:
3.1 Inform relevant persons that the delivery is finishing
3.2 Store equipment when delivery is complete
3.3 Deal with waste spillage or rubbish.
Unit 215  Understand how to receive goods and materials in food operations

Level: 2  
Credit value: 4  
UAN: J/502/7431

Unit aim
This unit supports workforce development for those who understand how to receive goods and materials, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Know how to receive and check goods and materials
2. Know how to deal with types of problems
3. Know the importance of organisational communication and information structures
4. Know the relevant health and safety and industry legislation

Guided learning hours
It is recommended that 28 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.103K Understand how to receive goods and materials in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when receiving goods and materials in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 215  
Understand how to receive goods and materials in food operations

Assessment criteria

**Outcome 1  Know how to receive and check goods and materials**
The learner can:
1.1 Identify the importance of good housekeeping practices
1.2 List handling equipment and its uses
1.3 State where deliveries should be off-loaded
1.4 State the importance of checking materials against documentation
1.5 Identify what to look for when carrying out checks on goods and materials
1.6 List reasons for refusing to accept goods and materials into storage
1.7 Identify methods to check the type and quality of goods and materials
1.8 Identify the use of stock control systems
1.9 Describe the importance of accurate completion of documentation.

**Outcome 2  Know how to deal with types of problems**
The learner can:
2.1 State the types of problems that may occur
2.2 Identify actions to be taken if faults are found in materials, delivery containers and equipment
2.3 State how to deal with discrepancies and the importance of reporting them
2.4 State how to deal with waste, spillage and rubbish
2.5 Outline the importance of dealing with waste, spillage and rubbish correctly
2.6 State what actions to take if the delivery of goods and materials is interrupted
2.7 State the importance of delivering to the right place and consequences if this does not happen.

**Outcome 3  Know the importance of organisational communication and information structures**
The learner can:
3.1 Outline procedures relating to the receipt of goods and materials
3.2 Identify the procedures relating to the receipt of goods and materials
3.3 Identify resources available for checking goods and materials into storage
3.4 Identify the company communication structures, procedures and documentation
3.5 State the importance of communicating accurate information
3.6 Outline why it is important to keep documentation accurate and up to date.

**Outcome 4  Know the relevant health and safety and industry legislation**
The learner can:
4.1 State the importance of safe handling of goods and materials
4.2 State the importance of correct storage of equipment
4.3 State the importance of following the relevant industry regulations (e.g. Customs and Excise)
4.4 State the importance of following the relevant health and safety, hygiene and environmental standards and instructions.
**Unit 216**  
**Understand how to unload goods and materials in food operations**

**Level:** 2  
**Credit value:** 2  
**UAN:** T/502/7358

**Unit aim**  
This unit supports workforce development for those who understand how to unload goods and materials, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

**Learning outcomes**  
There are **two** learning outcomes to this unit. The learner will:

1. Know the procedures and equipment required for unloading goods and materials
2. Know the checks that need to be made when unloading goods and materials

**Guided learning hours**  
It is recommended that **13** hours should be allocated for this unit, although patterns of delivery are likely to vary.

**Details of the relationship between the unit and relevant national standards**  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.104K Understand how to unload goods and materials in food manufacture.

**Support of the unit by a sector or other appropriate body**  
This unit is endorsed by Improve.

**Assessment**  
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when unloading goods and materials in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 216  Understand how to unload goods and materials in food operations

Assessment criteria

Outcome 1  Know the procedures and equipment required for unloading goods and materials

The learner can:
1.1 Describe why it is important to position and secure the vehicle correctly prior to unloading
1.2 Outline the handling equipment required for unloading
1.3 Describe the procedures for setting up handling equipment
1.4 Identify safe methods of handling goods and materials.

Outcome 2  Know the checks that need to be made when unloading goods and materials

The learner can:
2.1 State checks on goods and materials
2.2 Identify checks to be made on handling equipment prior to unloading
2.3 Outline visual checks to be carried out during unloading
2.4 Outline relevant legislation relating to health and safety, food safety and temperature controls.
Unit 217  Store goods and materials in food operations

Level: 2  
Credit value: 3  
UAN: A/601/4623

Unit aim
This unit supports workforce development for those who store goods and materials in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to select and handle goods and materials safely and hygienically
2. Be able to store goods and materials in allocated locations
3. Be able to check and complete documentation

Guided learning hours
It is recommended that 24 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.108S Store goods and materials in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, store goods and materials in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 217 Store goods and materials in food operations

Assessment criteria

**Outcome 1** Be able to select and handle goods and materials safely and hygienically

The learner can:

1.1 Identify the stock to be put in the storage location
1.2 Maintain the storage location hygienically and safely
1.3 Meet customers’ requirements for storage facilities
1.4 Follow safe and hygienic working practices
1.5 Use handling techniques to maintain stock condition.

**Outcome 2** Be able to store goods and materials in allocated locations

The learner can:

2.1 Check product to ensure it meets customer or company specification
2.2 Store stock in correct location and allocated space to ensure the best use of available space
2.3 Ensure that stock can be accessed according to stock rotation procedures
2.4 Report difficulties in placing goods and materials to the relevant person
2.5 Carry out storage procedures within the specified time.

**Outcome 3** Be able to check and complete documentation

The learner can:

3.1 Complete stock records and pass them on promptly
3.2 Ensure documentation is complete.
Unit 218  Understand how to store and organise goods and materials in food operations

Level: 2
Credit value: 4
UAN: F/601/4624

Unit aim
This unit supports workforce development for those who understand how to store and organise goods and materials, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Know suitable storage locations for goods and materials
2. Know how to deal with damage to goods, materials and equipment
3. Know the safety, security and environmental conditions for transport and storage of goods and materials
4. Know the organisational communication and documentation procedures

Guided learning hours
It is recommended that 25 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.110K Understand how to store and organise goods and materials in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when storing and organising goods and materials in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 218 Understand how to store and organise goods and materials in food operations

Assessment criteria

**Outcome 1 Know suitable storage locations for goods and materials**

The learner can:

1.1 State types of goods and materials in storage
1.2 Describe the storage requirements for the range and types of goods and materials available
1.3 Describe characteristics of storage facilities and locations
1.4 State the importance of selecting suitable storage locations for specific goods and materials
1.5 Describe the importance of storing items in the most suitable location and action to be taken if it is not suitable or unavailable
1.6 Assess the suitability of storage locations in relation to the quantity, quality and shelf life of the goods and materials.

**Outcome 2 Know how to deal with damage to goods, materials and equipment**

The learner can:

2.1 Describe checks of goods and materials to ensure they comply with company specifications
2.2 List how to deal with types of equipment defects
2.3 Describe the types of handling and securing equipment
2.4 State the importance of reporting damaged goods and materials
2.5 Outline the costs associated with damaged goods and materials.

**Outcome 3 Know the safety, security and environmental conditions for transport and storage of goods and materials**

The learner can:

3.1 Describe the importance of checking the storage transfer route for hazards
3.2 Outline the different security, safety and environmental conditions
3.3 State regulations applicable to storage eg COSHH
3.4 Describe handling methods that will prevent damage and contamination of goods and materials.

**Outcome 4 Know the organisational communication and documentation procedures**

The learner can:

4.1 Describe information contained on goods, materials and documentation that is relevant
4.2 State the importance of complete and accurate documentation
4.3 Describe the communication structures and procedures within your company
4.4 Describe the importance of effective communication within the organisation.
Unit 219  Control stock levels in food operations

Level:  2  
Credit value:  3  
UAN:  K/502/7440

Unit aim
This unit supports workforce development for those who control stock levels in a food business. The unit is designed for use primarily by supply chain operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to monitor the level of stock
2. Be able to ensure the safe use and rotation of stock

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.118S Control stock levels in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace when controlling stock levels in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 219  Control stock levels in food operations

Assessment criteria

Outcome 1  Be able to monitor the level of stock
The learner can:
1.1 Report difficulties, discrepancies and actual or potential risks to the relevant people
1.2 Monitor achievement of standards and targets for storage of stock
1.3 Provide support to enable own team to contribute to achievement of required stock levels
1.4 Report the potential shortfalls of stock levels against planned requirements
1.5 Take action to increase or reduce stock levels to meet customer requirements.

Outcome 2  Be able to ensure the safe use and rotation of stock
The learner can:
2.1 Ensure that stock is not retained beyond its specified shelf-life or sell-by date
2.2 Ensure that stock is stored in accordance with legal and standard operational requirements
2.3 Report actual and potential risks to stock and potential defects in the stock storage system to relevant people
2.4 Inform your team of all factors influencing effective and safe storage and use of stock
Unit 220  Understand how to control stock levels in food operations

Level: 2
Credit value: 1
UAN: A/502/7359

Unit aim
This unit supports workforce development for those who understand how to control stock levels, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There is one learning outcome to this unit. The learner will:
1. Know how to control stock levels in food operations

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.119K Understand how to control stock levels in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling stock levels in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 220  Understand how to control stock levels in food operations

Assessment criteria

Outcome 1  Know how to control stock levels in food operations
The learner can:
1.1 Describe the key features of legal and operational requirements
1.2 Explain the requirements of shelf life/sell by date of products and their importance
1.3 Outline the implications of stock levels below or over planned demand
1.4 Describe how to monitor stock levels
1.5 Describe the storage requirements for stock
1.6 Explain the importance of sell-by dates
1.7 Explain what influences contamination or damage to stock.
Unit 221  Supply materials for production in food operations

Level: 2  Credit value: 3  UAN: J/601/4625

Unit aim
This unit supports workforce development for those who supply materials for production in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to match production needs with availability of supplies
2. Be able to maintain supply of materials to production area and work stations

Guided learning hours
It is recommended that 18 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.201S Supply materials for production in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, supplying materials for production in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 221  Supply materials for production in food operations

Assessment criteria

**Outcome 1  Be able to match production needs with availability of supplies**

The learner can:

1.1  Identify the service and supply needs of the production area and work stations
1.2  Select and check the supplies to meet the demands of production
1.3  Report discrepancies in the supplies to the relevant person.

**Outcome 2  Be able to maintain supply of materials to production area and work stations**

The learner can:

2.1  Store specified levels of supplies to meet production demands
2.2  Maintain the specified levels of supplies to meet production demands
2.3  Transfer the required quantities of supplies to the production areas and work stations
2.4  Follow safe and hygienic working practices.
Unit 222  Understand how to supply materials for production in food operations

Level: 2
Credit value: 3
UAN: L/601/4626

Unit aim
This unit supports workforce development for those who understand how to supply materials for production, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to determine sufficiency of supplies of food and drink materials to meet production requirements
2. Know how to maintain supplies to ensure smooth running in production

Guided learning hours
It is recommended that 17 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.202K Understand how to supply materials for production in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when supplying materials for production in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 222 Understand how to supply materials for production in food operations

Assessment criteria

Outcome 1 Know how to determine sufficiency of supplies of food and drink materials to meet production requirements
The learner can:
1.1 State how to identify the service and supply needs of the production area and work stations
1.2 State the importance of identifying service and supply requirements
1.3 Describe the specific levels of supplies to be maintained at the production area and work stations.

Outcome 2 Knows how to maintain supplies to ensure smooth running in production
The learner can:
2.1 State the operational requirements for supplies and how short supplies of materials affect production runs
2.2 Describe the types and quantities of materials used in the production process
2.3 State the importance of allocating specific areas for supplies to the production area and work stations
2.4 Describe why allocated supply areas should be utilised
2.5 Describe how to store supplies
2.6 State the importance of reporting discrepancies in supplies.
Unit 223  Carry out and finish bulk filling in food operations

Level: 2
Credit value: 2
UAN: M/502/7360

Unit aim
This unit supports workforce development for those who carry out and finish bulk filling in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for bulk filling
2. Be able to carry out and monitor the bulk filling process
3. Be able to complete the bulk filling process

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.205S Carry out and finish bulk filling in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, carrying out and finishing bulk filling in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 223  Carry out and finish bulk filling in food operations

Assessment criteria

**Outcome 1  Be able to prepare for bulk filling**
The learner can:
1.1 Receive and confirm bulk filling instructions
1.2 Check that filling containers are available and fit for use
1.3 Check that services and filling equipment are available and fit for use.

**Outcome 2  Be able to carry out and monitor the bulk filling process**
The learner can:
2.1 Follow specifications for bulk filling
2.2 Check to ensure that output rates comply with specifications
2.3 Check that containers comply with specifications
2.4 Deal with containers which do not meet specifications
2.5 Carry out bulk filling to achieve required output to specification
2.6 Follow industry regulations and health and safety standards when preparing and carrying out bulk filling.

**Outcome 3  Be able to complete the bulk filling process**
The learner can:
3.1 Finish bulk filling process according to specification
3.2 Close down plant and equipment
3.3 Deal with any operational loss, gain or spillage
3.4 Check that records are completed accurately throughout the bulk filling process.
Unit 224  Understand how to carry out and finish bulk filling in food operations

Level: 2  
Credit value: 2  
UAN: T/502/7361

Unit aim
This unit supports workforce development for those who understand how to carry out and finish bulk filling, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know the information that is important to carry out bulk filling
2. Know how to deal with problems in supply and services
3. Know relevant current industry legislation and standards

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.206K Understand how to carry out and finish bulk filling in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when carrying out and finishing bulk filling in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 224  Understand how to carry out and finish bulk filling in food operations

Assessment criteria

Outcome 1  Know the information that is important to carry out bulk filling

The learner can:
1.1 Describe why it is important to have information about product, containers and filling equipment
1.2 Describe why it is important to have information about rates of filling
1.3 State the sources of information for product, containers, filling equipment and rates of filling
1.4 Describe the importance of checking that containers meet specifications
1.5 State the importance of keeping complete and accurate records
1.6 Describe the importance of effective communication
1.7 State the information that needs to be communicated and to whom.

Outcome 2  Know how to deal with problems in supply and services

The learner can:
2.1 Describe required services and the impact of them not being available
2.2 State the action to be taken if there are faults in products, equipment or containers
2.3 Describe how to correct faults within the limits of your authority
2.4 Describe what action to take if there is an interruption to supply
2.5 State the acceptable loss and gain limits
2.6 State actions to be taken if loss or gain limits are exceeded
2.7 Describe the importance of dealing with loss or spillage
2.8 Describe the consequences of not dealing with loss or spillage.

Outcome 3  Know relevant current industry legislation and standards

The learner can:
3.1 State the relevant health, safety, hygiene and environmental standards and instructions
3.2 Describe the relevant industry regulations (eg Customs and Excise)
3.3 Describe the effects of standards and industry regulations not being followed.
Unit 225  Carry out and finish transfer of materials in food operations

Level: 2  
Credit value: 1  
UAN: A/502/7362

Unit aim  
This unit supports workforce development for those who carry out and finish transfer of materials in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes  
There are two learning outcomes to this unit. The learner will:
1. Be able to prepare to transfer materials  
2. Be able to carry out and finish the process of transferring materials

Guided learning hours  
It is recommended that 6 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.207S Carry out and finish transfer of materials in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the skills of learners in the workplace, carrying out and finishing transfer of materials in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 225 Carry out and finish transfer of materials in food operations

Assessment criteria

Outcome 1 Be able to prepare to transfer materials
The learner can:
1.1 Establish transfer requirements
1.2 Identify and locate materials for transfer
1.3 Check that materials are fit for use.

Outcome 2 Be able to carry out and finish the process of transferring materials
The learner can:
2.1 Transfer materials to the identified destination
2.2 Deal with unfit materials according to company procedures
2.3 Confirm that materials arrive at the identified destination
2.4 Check for and report operational discrepancies
2.5 Complete all transfer records
2.6 Follow health safety and hygiene standards when preparing and carrying out transfer of materials
2.7 Close down plant and equipment.
Unit 226  
Understand how to carry out and finish transfer of materials in food operations

Level: 2  
Credit value: 1  
UAN: F/502/7363

Unit aim  
This unit supports workforce development for those who understand how to carry out and finish transfer of materials, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes  
There are two learning outcomes to this unit. The learner will:
1. Know the process for transferring materials
2. Know industry regulations and health and safety standards

Guided learning hours  
It is recommended that 9 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.208K Understand how to transfer materials in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when carrying out and finishing transfer of materials in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 226  
Understand how to carry out and finish transfer of materials in food operations

Assessment criteria

Outcome 1  
Know the process for transferring materials
The learner can:
1.1 State how to establish transfer requirements
1.2 Describe how to establish product fitness for use and procedures for dealing with unfit products
1.3 State the importance of communicating the correct information effectively
1.4 Describe how storage and mechanical movement systems work
1.5 Describe problems that may occur if storage and mechanical movement systems are not understood
1.6 State the importance of keeping accurate up to date records
1.7 State the importance of following correct plant and equipment shutdown procedures.

Outcome 2  
Know industry regulations and health and safety standards
The learner can:
2.1 Describe why it is important to follow relevant health, safety and hygiene standards and instructions
2.2 List relevant industry regulations (e.g., Customs and Excise)
2.3 Describe why it is important to follow relevant industry regulations.
Unit 227  Process customer orders in food operations

Level:  2  
Credit value:  2  
UAN:  M/502/7441

Unit aim
This unit supports workforce development for those who process customer orders in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to check the availability of goods for customer orders in food operations
2. Be able to complete customer ordering processing in food operations

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.301S Process orders for goods.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, processing customer orders in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 227  Process customer orders in food operations

Assessment criteria

Outcome 1  Be able to check the availability of goods for customer orders in food operations

The learner can:
1.1 Identify what the customer wants through questioning
1.2 Check that the goods ordered will meet the customer’s requirements
1.3 Select the source of supply for the goods
1.4 Provide the customer with information about the goods.

Outcome 2  Be able to complete customer order processing in food operations

The learner can:
2.1 Check the customer’s account and delivery details
2.2 Check the customer’s payment and credit details
2.3 Inform the customer if required goods are not in stock and are being ordered
2.4 Ensure that goods that are not in stock are placed on order
2.5 Pass on invoicing details to ensure that the customer is invoiced
2.6 Identify when an order cannot be processed and inform somebody in authority
2.7 Keep the customer informed of progress with an order
2.8 Store customer information securely.
Unit 228  
Understand how to process customer orders in food operations

Level: 2  
Credit value: 2  
UAN: Y/502/7479

Unit aim
This unit supports workforce development for those who understand how to process customer orders, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to find out what the customer wants and if it is available
2. Know how to complete customer order processing in food operations
3. Know the processes of communicating with customers about orders

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.302K Understand how to process customer orders in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when processing customer orders in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 228 Understand how to process customer orders in food operations

Assessment criteria

Outcome 1 Know how to find out what the customer wants and if it is available

The learner can:
1.1 List the questions that will find out exactly what the customer wants
1.2 Describe how to check whether stock is available to fulfil an order
1.3 Describe how to identify goods that are available from stock and those that must be ordered
1.4 State the importance of keeping the customer informed if goods have to be ordered.

Outcome 2 Know how to complete customer order processing in food operations

The learner can:
2.1 Describe how to order stock to fulfil customer requests
2.2 State how to check customer’s identity, account and delivery details
2.4 State how long orders normally take to fulfil
2.5 Describe what to do if it is not possible to fulfil orders on time.

Outcome 3 Know the processes of communicating with customers about orders

The learner can:
3.1 List the information needed for invoicing
3.2 State who in the organisation should be informed if orders cannot be fulfilled on time
3.3 State the importance of keeping a customer informed if orders cannot be processed on time
3.4 Explain the importance of confidentiality when using and storing customer information
3.5 List those who are entitled to gain access to customer information.
Unit 229  Pick orders and store for despatch in food operations

Level: 2  
Credit value: 2  
UAN: J/502/7462

Unit aim
This unit supports workforce development for those who pick orders and store for despatch in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to check order sheets and other documentation for picking and storing orders
2. Be able to prepare to carry out order picking
3. Be able to pick and store orders

Guided learning hours
It is recommended that 9 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.304S Pick orders and store in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, picking orders and storing for despatch in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 229  Pick orders and store for despatch in food operations

Assessment criteria

Outcome 1  Be able to check order sheets and other documentation for picking and storing orders
The learner can:
1.1 Confirm that the order sheet has all the necessary details for picking orders
1.2 Confirm the timescales by which picking of orders must be completed.

Outcome 2  Be able to prepare to carry out order picking
The learner can:
2.1 Identify the correct
   • location
   • equipment
   • method
   for storing food and drink products
2.2 Check that all products are available for picking
2.3 Check that there is sufficient space to assemble the specified order
2.4 Report any problems to the appropriate person.

Outcome 3  Be able to pick and store orders
The learner can:
3.1 Pick items using the specified order
3.2 Check the condition of the products
3.2 Check that the picked order matches the order specification
3.3 Position and use storage equipment for picking orders
3.4 Immobilise any moving items of storage equipment
3.5 Report any differences between the picked order and the order specification to the appropriate person.
Unit 230  
Understand how to pick orders and store for despatch in food operations

Level: 2  
Credit value: 2  
UAN: L/502/7480

Unit aim
This unit supports workforce development for those who understand how to pick orders and store for despatch in a food business. The unit is designed for use primarily by Operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to pick orders to an order sheet
2. Know the importance of storing products safely and securely ready for despatch or delivery

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.305K Understand how to pick orders and store for despatch in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when picking orders and storing for despatch in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 230  Understand how to pick orders and store for despatch in food operations

Assessment criteria

Outcome 1  Know how to pick orders to an order sheet
The learner can:
1.1 List the categories of product sold by the organisation
1.2 Describe how to pick orders against specified picking notes
1.3 Describe the importance of picking orders correctly and within specified timescales
1.4 Describe the importance of reporting problems, errors or mismatches to the relevant person
1.5 Describe the importance of completing relevant records.

Outcome 2  Know the importance of storing products safely and securely ready for despatch or delivery
The learner can:
2.1 List types of storage equipment and their uses
2.2 Describe how to identify defects in storage equipment
2.3 State the importance of reporting defects in storage equipment immediately
2.4 State the importance of securing mobile equipment
2.5 Identify reasons for different locations for picked orders
2.6 Describe the importance of monitoring the quality of the products including by date codes, damage, labelling and temperature
2.7 Describe how to ensure that goods are ready for the next stage of despatch or delivery.
Unit 231 Understand how to produce product packs in food operations

Level: 2
Credit value: 3
UAN: F/601/8298

Unit aim
This unit supports workforce development for those who understand how to produce product packs, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to meet production demand for product packs
2. Know how to control production of product packs
3. Know how to complete production of product packs

Guided learning hours
It is recommended that 25 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.311K Understand how to produce product packs in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when producing product packs in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 231 Understand how to produce product packs in food operations

Assessment criteria

Outcome 1 Know how to meet production demand for product packs
The learner can:
1.1 State the expected rate of use of product and materials
1.2 Outline what action to take if the supply of product and materials is interrupted
1.3 State why it is important to control consumables to match the packing run
1.4 Outline how to measure the quantity of product to go into the packs
1.5 State why it is important to supply the specified materials in the specified quantity and on time
1.6 State why it is important to meet output targets.

Outcome 2 Know how to control production of product packs
The learner can:
2.1 State why it is important to monitor operations
2.2 State why it is important to work within the limits of own authority and ability
2.3 State why it is important to control consumables to match the packing run.

Outcome 3 Know how to complete production of product packs
The learner can:
3.1 State why it is important to have a shut-down sequence
3.2 Outline the impact if waste and scrap disposal procedures are not followed
3.3 Outline what preparations are required for the next phase in the cycle
3.4 Describe how to prepare the work area for future use.
Unit 232  Understand how to produce individual packs by hand in food operations

Level:  2
Credit value:  3
UAN:  A/502/7443

Unit aim
This unit supports workforce development for those who understand how to produce individual packs by hand, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to prepare to produce individual packs by hand
2. Know how to carry out production of packs by hand
3. Know how to finish production of packs by hand in food operations

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.311K Understand how to produce product packs by hand in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when producing individual packs by hand in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 232  Understand how to produce individual packs by hand in food operations

Assessment criteria

**Outcome 1**  Know how to prepare to produce individual packs by hand
The learner can:
1.1 List the sources of information about products, materials and packaging
1.2 Describe how to identify different types of product and packaging
1.3 State the functions of the packing materials being used
1.4 Describe how to establish that the product and packaging are fit for use
1.5 State organisational procedures for dealing with product and packaging that is not fit for use
1.6 Outline the physical characteristics of products that affect packaging and packing
1.7 State the main types of packing and sealing materials.

**Outcome 2**  Know how to carry out production of packs by hand
The learner can:
2.1 Describe required manual handling techniques to be used when producing packs by hand
2.2 Describe what action should be taken if faults are discovered in packing materials, products, equipment condition and equipment settings
2.3 State the importance of having checking procedures
2.4 State the expected rate of use of products and materials
2.5 State the importance of controlling consumables to match the packing run
2.6 Outline how to measure the quantity of product to go into each pack and how this is monitored
2.7 State the required standards for each pack.

**Outcome 3**  Know how to finish production of packs by hand in food operations
The learner can:
3.1 State the importance of supplying the materials
3.2 State the importance of meeting output targets when finishing production of packs
3.3 State the importance of controlling consumables to match the packing run
3.4 State the importance of having a clear shut down sequence when finishing production of packs
3.5 Describe how to dispose of waste and scrap material
3.6 Outline the preparations required for the next phase in the production cycle
3.7 State the importance of communicating effectively about all aspects of production of packs by hand.
Unit 233  Understand how to meet requirements for producing product packs in food operations

Level: 2
Credit value: 2
UAN: F/502/7444

Unit aim
This unit supports workforce development for those who understand how to meet requirements for producing product packs, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know the requirements for producing product packs
2. Know how to meet the specification for producing product packs
3. Know how to maintain quality in product packs

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) SD.311.2K Understand how to produce product packs in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when meeting requirements for producing product packs in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 233 Understand how to meet requirements for producing product packs in food operations

Assessment criteria

Outcome 1 Know the requirements for producing product packs
The learner can:
1.1 State how to obtain information about products, materials and coding
1.2 State the manual handling techniques for the packing materials being used
1.3 Outline the precautions to take to avoid injury when handling packing materials
1.4 State why it is important to communicate
1.5 State why it is important to keep records.

Outcome 2 Know how to meet the specification for producing product packs
The learner can:
2.1 Outline how to identify different types of packing materials and products
2.2 State the functions of the main packing materials being used
2.3 State what action to take if you discover faults in products, materials, equipment settings and equipment condition
2.4 Outline how to check fitness for use and deal with materials and products which are unfit for use
2.5 Outline the physical characteristics of products and the affect on packing
2.6 State the main types of packing materials and sealing methods.

Outcome 3 Know how to maintain quality in product packs
The learner can:
3.1 Outline why it is important to have checking procedures
3.2 State the expected standards for quality, output and wastage
3.3 State why it is important to have quality standards.
Unit 234  Pack orders for despatch in food operations

Level: 2  
Credit value: 1  
UAN: R/601/4627

Unit aim
This unit supports workforce development for those who pack orders for despatch in a food business. The unit is designed for use primarily by Operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There is one learning outcome to this unit. The learner will:
1. Be able to pack orders to specification for despatch in food operations

Guided learning hours
It is recommended that 6 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.312S Pack orders for despatch in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, packing orders for despatch in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 234 Pack orders for despatch in food operations

Assessment criteria

Outcome 1 Be able to pack orders to specification for despatch in food operations

The learner can:

1.1 Identify the correct order documentation for packing orders for despatch
1.2 Identify the correct equipment, location and materials for packing orders
1.3 Follow the organisation’s procedures for packing orders and for storing and positioning packed goods before despatch
1.4 Report any damage to or problems with packing and storage equipment to the appropriate person
1.5 Check that movable items of equipment are immobilised when packing orders
1.6 Check that packed orders match quality and quantity specifications.
Unit 235  Understand how to pack orders for despatch in food operations

Level: 2
Credit value: 1
UAN: Y/601/4628

Unit aim
This unit supports workforce development for those who understand how to pack orders for despatch in food operations, in a food business. The unit is designed for use primarily by Operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There is one learning outcome to this unit. The learner will:
1. Know how to pack orders to specification for despatch in food operations

Guided learning hours
It is recommended that 6 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.313K Understand how to pack orders in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when packing orders for despatch in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 235 Understand how to pack orders for despatch in food operations

Assessment criteria

Outcome 1 Know how to pack orders to specification for despatch in food operations

The learner can:

1.1 State the importance of avoiding contamination and damage when packing orders for despatch
1.2 Describe how to work when packing orders for despatch from verbal and written instructions and within the required timescales
1.3 List types and uses of packing materials
1.4 List the types and methods of packing orders to specified quality and quantity
1.5 State the importance of reporting any defects in packing equipment immediately
1.6 Describe the importance of securing mobile equipment when packing orders for despatch.
Unit 236  Assemble different products to a pre-determined pattern in food operations

Level: 2
Credit value: 5
UAN: R/502/7447

Unit aim
This unit supports workforce development for those who assemble different products to a pre-determined pattern in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare to assemble products
2. Be able to carry out assembly of products
3. Be able to finish assembly of products

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.314S Assemble different products to a pre-determined pattern in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, assembling different products to a pre-determined pattern in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 236  
Assemble different products to a predetermined pattern in food operations

Assessment criteria

Outcome 1  
Be able to prepare to assemble products
The learner can:
1.1 Check packing specifications for assembling products
1.2 Set up equipment to specification for assembling products
1.3 Check that sufficient
   - packing material
   - product
   is available and fit for use
1.4 Follow the organisation's procedures to deal with operating problems when preparing to assemble products.

Outcome 2  
Be able to carry out assembly of products
The learner can:
2.1 Check that the equipment is correctly supplied with materials for the assembly of products
2.2 Check that the presentation and content of the assembled products meet the specification
2.3 Monitor pack quality and quantity and take any corrective action to remedy defects
2.4 Ensure that the required output is achieved to meet the specification for assembled products
2.5 Ensure that there is minimum waste when assembling products
2.6 Dispose of assembled products that do not meet specification.

Outcome 3  
Be able to finish assembly of products
The learner can:
3.1 Dispose of surplus consumables following organisation's procedures
3.2 Store packs in the allocated area
3.3 Stop the packaging run when assembly of products is completed
3.4 Deal correctly with
   - waste
   - scrap
   - non-standard products
   when finishing the assembly of products
3.5 Make equipment ready for future use after assembly of products has been completed
3.6 Maintain communication as appropriate throughout the process
3.7 Complete records relating to the assembly of products.
Unit 237  Understand how to assemble different products to a pre-determined pattern in food operations

Level: 2  
Credit value: 2  
UAN: Y/502/7448

Unit aim
This unit supports workforce development for those who understand how to assemble different products to a pre-determined pattern in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Know how to prepare products and materials to assemble different products to a pre-determined pattern
2. Know how to prepare regarding processes and procedures to assemble different products to a pre-determined pattern
3. Know how to carry out assembly of different products to a pre-determined pattern
4. Know how to finish the assembly of different products to a pre-determined pattern in food operations

Guided learning hours
It is recommended that 14 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) SD.315K Understand how to assemble different products to a pre-determined pattern in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when assembling different products to a pre-determined pattern in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 237  
Understand how to assemble different products to a pre-determined pattern in food operations

Assessment criteria

Outcome 1  
Know how to prepare products and materials to assemble different products to a pre-determined pattern

The learner can:
1.1 Describe how to obtain information about product, materials and product coding when assembling products
1.2 Describe how to identify different types of product and packing materials used in assembling products and their functions
1.3 Describe how to establish that materials and products are fit for use
1.4 Describe the physical characteristics of products to be assembled into packs and how these characteristics affect their assembly.

Outcome 2  
Know how to prepare regarding processes and procedures to assemble different products to a pre-determined pattern

The learner can:
2.1 Describe the manual handling techniques for the packing materials used when assembling products
2.2 State the actions to be taken when faults are discovered in products, materials and equipment when assembling products
2.3 Describe the use of equipment in the packing line and how they affect one another
2.4 Describe the importance of checking procedures when assembling products
2.5 State the limits of own authority and competence in relation to assembling packs
2.6 Explain the importance of communicating effectively with relevant people throughout the products assembly process.

Outcome 3  
Know how to carry out assembly of different products to a pre-determined pattern

The learner can:
3.1 State the expected rate of use of products and materials when assembling products
3.2 State what action to take if supply is interrupted
3.3 List the main types of packing materials and sealing methods used when assembling products
3.4 Describe the precautions to be taken to avoid injury when handling packing materials
3.5 State the expected standards of assembled products in terms of quality, output and wastage
3.6 Describe how to monitor operations in assembly of products
3.7 State the importance of supplying the materials when assembling products
3.8 Describe procedures for dealing with waste and scrap when assembling products.
Outcome 4  Know how to finish the assembly of different products to a pre-determined pattern in food operations

The learner can:
4.1  State the importance of stopping the packaging run complete
4.2  Describe how to make equipment ready for future use after finishing assembly of products
4.3  State the importance of keeping records when finishing assembly of products.
Unit 238  Palletise and wrap products in food operations

Level: 2  
Credit value: 3  
UAN: D/502/7449

Unit aim
This unit supports workforce development for those who palletise and wrap products in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Be able to carry out checks before palletising and wrapping products
2. Be able to carry out palletising and wrapping
3. Be able to finish palletising and wrapping
4. Be able to ensure that the process of palletising and wrapping products in food operations works effectively

Guided learning hours
It is recommended that 21 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.316S Palletise and wrap products in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, palletising and wrapping products in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 238  Palletise and wrap products in food operations

Assessment criteria

Outcome 1  Be able to carry out checks before palletising and wrapping products

The learner can:
1.1 Confirm palletising and wrapping instructions
1.2 Check that palletising and wrapping materials and products are available
1.3 Check that palletising and wrapping equipment is available and fit for use
1.4 Follow the organisation's procedures to inform the appropriate people if additional equipment or services are not available for palletising and wrapping
1.5 Identify the cases and packs to be palletised and wrapped.

Outcome 2  Be able to carry out palletising and wrapping

The learner can:
2.1 Start up palletising and wrapping equipment in sequence
2.2 Build pallet loads that are within specification
2.3 Follow the organisation's procedures to deal with pallet loads that are outside of specification.

Outcome 3  Be able to finish palletising and wrapping

The learner can:
3.1 Achieve the required output to specification when palletising and wrapping products
3.2 Check the amount of palletising and wrapping materials consumed during the run
3.3 Return surplus materials when the run is finished
3.4 Shut down equipment used when the run is complete
3.5 Follow the organisations procedures to deal with waste or scrap materials
3.6 Check that equipment used is made ready for the next production run
3.7 Complete all records relating to palletising and wrapping products
3.8 Make packs and pallets ready for movement to the next location when the run is complete.

Outcome 4  Be able to ensure that the process of palletising and wrapping products in food operations works effectively

The learner can:
4.1 Replenish packing material when necessary when palletising and wrapping products
4.2 Maintain required output rates when palletising and wrapping products
4.3 Ensure that there is economical use of
   - materials
   - equipment
   - services
   when palletising and wrapping products.
Unit 239  Understand how to palletise and wrap products in food operations

Level: 2  
Credit value: 2  
UAN: R/502/7450

Unit aim  
This unit supports workforce development for those who understand how to palletise and wrap products in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes  
There are three learning outcomes to this unit. The learner will:
1. Know how to carry out checks before palletising and wrapping products  
2. Know how to carry out palletising and wrapping  
3. Know how to finish palletising and wrapping of products

Guided learning hours  
It is recommended that 6 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.317K Understand how to palletise and wrap products in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when palletising and wrapping products in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 239  Understand how to palletise and wrap products in food operations

Assessment criteria

**Outcome 1  Know how to carry out checks before palletising and wrapping products**

The learner can:

1.1 List industry regulation relevant to palletising and wrapping products
1.2 Describe how to obtain information about palleting and the materials used.
1.3 Describe how to check the condition of tools and equipment
1.4 State the limits of own authority.

**Outcome 2  Know how to carry out palletising and wrapping**

The learner can:

2.1 Describe the organisation's procedures for action to take to report faults in product, materials and equipment.
2.2 List the services required for palletising and wrapping products
2.3 Describe handling requirements when carrying out palletising and wrapping of products
2.4 State how damage or deterioration to products can be avoided
2.5 Describe the organisation's procedures for dealing with interruption to the supply of products, materials and services
2.6 Explain the purpose of coding and labelling information.

**Outcome 3  Know how to finish palletising and wrapping of products**

The learner can:

3.1 State the necessity to prepare for the next production run
3.2 State the necessity to ensure that packed or wrapped products are ready for transfer to the next location
3.3 State the reason for keeping records.
3.4 Describe how to communicate with the relevant people throughout the process
Unit 240  Load consignments for despatch in food operations

Level: 2  
Credit value: 1  
UAN: Y/502/7451

Unit aim  
This unit supports workforce development for those who load consignments for despatch in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes  
There are two learning outcomes to this unit. The learner will:  
1. Be able to check consignments and equipment  
2. Be able to carry out loading of consignments

Guided learning hours  
It is recommended that 9 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.322S Load consignments for despatch in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the skills of learners in the workplace, loading consignments for despatch in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 240   Load consignments for despatch in food operations

Assessment criteria

Outcome 1   Be able to check consignments and equipment
The learner can:
1.1 Check that the consignment matches the documentation and despatch instructions before it is loaded
1.2 Report any defects, damages or mismatches when checking consignments for despatch
1.3 Report actions taken to correct problems to the relevant person.

Outcome 2   Be able to carry out loading of consignments
The learner can:
2.1 Load consignments working alone
2.2 Load consignments working with others
2.3 Check that the consignment load is distributed to avoid damage
2.4 Check that the load is balanced and secured to allow space to unload
2.5 Check that mixed consignments are loaded in a way that avoids contamination.
Unit 241  Understand how to load consignments for despatch in food operations

Level: 2
Credit value: 4
UAN: D/502/7452

Unit aim
This unit supports workforce development for those who understand how to load consignments for despatch, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Know how to check consignments and equipment
2. Know how to prepare for loading consignments
3. Know how to carry out loading of consignments
4. Know how to work safely when loading consignments for despatch

Guided learning hours
It is recommended that 25 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.323K Understand how to prepare and load consignments for despatch in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when loading consignments for despatch in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 241  Understand how to load consignments for despatch in food operations

Assessment criteria

**Outcome 1  Know how to check consignments and equipment**
The learner can:
1.1 List the relevant industry regulations for checking consignments for loading
1.2 State the importance of identifying and avoiding contamination and damage when loading consignments
1.3 List temperature and other food safety controls for handling food and drink when loading consignments
1.4 State the importance of documentation when checking consignments for despatch
1.5 State how to identify problems that may arise in a consignment
1.6 Describe the actions to be taken to deal with problems.

**Outcome 2  Know how to prepare for loading consignments**
The learner can:
2.1 Describe the characteristics of products and materials of the organisation
2.2 List the checks that need to be made on consignments before and during loading
2.3 Describe how to prepare a work area for loading
2.4 State the importance of following good housekeeping practices
2.5 State the checks that need to be made on vehicles and equipment.

**Outcome 3  Know how to carry out loading of consignments**
The learner can:
3.1 Describe how to use packing and storing equipment
3.2 List types of loading equipment and their uses
3.3 List types of handling equipment and their uses
3.4 Describe how to identify problems with loading equipment
3.5 State the importance of reporting problems with loading equipment
3.6 State the importance of loading consignments so they can be unloaded safely.

**Outcome 4  Know how to work safely when loading consignments for despatch**
The learner can:
4.1 Explain the importance of securing vehicles and mobile equipment before loading consignments
4.2 Describe safe manual handling and lifting techniques to use when loading consignments
4.3 Describe how to decide which loading methods are suitable for different types of consignment and loading conditions
4.4 State the importance of loading consignments securely to prevent contamination.
Unit 242  Prepare orders for despatch in food operations

Level: 2
Credit value: 3
UAN: M/602/1715

Unit aim
This unit supports workforce development for those who prepare orders for despatch in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Be able to prepare to assemble orders
2. Be able to assemble orders
3. Be able to prepare orders
4. Be able to finish order preparation

Guided learning hours
It is recommended that 19 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SD.327S Prepare orders for despatch.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, preparing orders for despatch in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 242  Prepare orders for despatch in food operations

Assessment criteria

Outcome 1  Be able to prepare to assemble orders
The learner can:
1.1 Observe packing and despatch documentation for individual customers
1.2 Prepare work area to ensure conditions suitable for order preparation
1.3 Obtain packaging materials and resources for the preparation of orders
1.4 Identify locations of selected items
1.5 Take action in response to operating problems
1.6 Maintain communication throughout the process.

Outcome 2  Be able to assemble orders
The learner can:
2.1 Select and assemble the specified goods to match despatch documentation
2.2 Identify and report any discrepancies or difficulties with preparing consignments
2.3 Take action in response to operating problems.

Outcome 3  Be able to prepare orders
The learner can:
3.1 Secure assembled order ready for despatch
3.2 Check that the prepared consignment matches the despatch instructions
3.3 Handle packaged products in a manner which maintains their quality and condition
3.4 Complete and label orders according to specification
3.5 Maintain condition of work area throughout process.

Outcome 4  Be able to finish order preparation
The learner can:
4.1 Dispose of waste according to organisational procedures
4.2 Make equipment and work area ready for future use after completion of the process
4.3 Complete all records.
Unit 243 Understand how to prepare orders for despatch in food operations

Level: 2
Credit value: 3
UAN: M/602/1696

Unit aim
This unit supports workforce development for those who understand how to prepare orders for dispatch in a food manufacturing business. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Know what the requirements are for preparing orders for despatch in food operations
2. Know how to assemble orders for despatch in food operations
3. Know how to prepare orders for despatch in food operations
4. Know how to finish preparing orders for despatch in food operations

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.328K Understand how to prepare orders for despatch.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when preparing orders for despatch. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 243  Understand how to prepare orders for despatch in food operations

Assessment criteria

Outcome 1  Know what the requirements are for preparing orders for despatch in food operations

The learner can:
1.1 Describe the facilities required to despatch food products
1.2 State why it is important to work within limits of own authority and competence
1.3 Describe how to carry out recording, reporting and communication and the importance of this.

Outcome 2  Know how to assemble orders for despatch in food operations

The learner can:
2.1 Describe how to assemble orders so that the quality of packaged materials is maintained
2.2 State how to obtain and interpret packing and despatch documentation
2.3 State the different types of packaging used for despatch
2.4 Outline how to assess the condition of packing materials
2.5 Describe how to monitor and assess the quality of packaging.

Outcome 3  Know how to prepare orders for despatch in food operations

The learner can:
3.1 Describe how to prepare products for despatch
3.2 State how to recognise the quality of product
3.3 Outline the labelling and despatch instructions
3.4 Describe how to check consignment notes against instructions
3.5 Describe how to handle packaged product to maintain condition and quality
3.6 Describe how to identify packaged product.

Outcome 4  Know how to finish preparing orders for despatch in food operations

The learner can:
4.1 State the action to take when the process specification is not met
4.2 Describe how to deal with order discrepancies
4.3 State why it is important to dispose of waste according to specified procedures.
Unit 244  Carry out disinfection in food operations

Level: 2  
Credit value: 2  
UAN: K/601/5184

Unit aim
This unit supports workforce development for those who carry out disinfection in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to prepare for disinfection
2. Be able to carry out disinfection procedures

Guided learning hours
It is recommended that 8 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, carrying out disinfection in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 244  Carry out disinfection in food operations
Assessment criteria

Outcome 1  Be able to prepare for disinfection
The learner can:
1.1  Identify the area to be disinfected and confirm that it is in a state for disinfection to be effective
1.2  Assemble the materials and equipment to carry out disinfection
1.3  Prepare the disinfection materials following manufacturer’s specifications
1.4  Check specifications to determine distribution and dosage levels.

Outcome 2  Be able to carry out disinfection procedures
The learner can:
2.1  Distribute disinfectant at the levels set by technical specifications, and ensure all of the area is disinfected
2.2  Replace all equipment and materials safely and securely in the specified place
2.3  Maintain disinfection facilities and equipment in a condition suitable for use.
Unit 245  Understand how to carry out disinfection in food operations

Level: 2
Credit value: 2
UAN: T/601/5186

Unit aim
This unit supports workforce development for those who understand how to carry out disinfection, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know about the requirements for disinfection
2. Know how to carry out disinfection
3. Know how to complete disinfection

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.106K Understand how to carry out disinfection in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when carrying out disinfection in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 245 Understand how to carry out disinfection in food operations

Assessment criteria

Outcome 1 Know about the requirements for disinfection
The learner can:
1.1 Explain the meaning of disinfection
1.2 Describe the difference between disinfectants and detergents
1.3 List the key materials and equipment required to carry out disinfection
1.4 State the importance of preparing disinfection solutions according to manufacturer's specifications
1.5 Describe conditions that make disinfection ineffective.

Outcome 2 Know how to carry out disinfection
The learner can:
2.1 Describe procedures for preparing an area before disinfection
2.2 Outline why it is important to confirm correct distribution and dosage levels of disinfectants
2.3 Describe methods of distributing disinfectants
2.4 Explain the importance of distributing disinfectant evenly to cover the area.

Outcome 3 Know how to complete disinfection
The learner can:
3.1 State why it is important to replace all equipment and materials safely and securely in the specified place
3.2 Describe how to handle, store and use disinfectants
3.3 Describe how to maintain disinfection facilities and equipment and why this is important
3.4 State the types of records required for usage of disinfectants.
Unit 246  Control washing and drying machinery in food operations

Level: 2  
Credit value: 3  
UAN: M/601/4666

Unit aim
This unit supports workforce development for those who control washing and drying machinery in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare machinery for washing and drying according to specifications and procedures
2. Be able to operate washing and drying machinery according to specifications and procedures
3. Be able to shut down washing and drying machinery

Guided learning hours
It is recommended that 16 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.107S Control washing and drying machinery in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling washing and drying machinery in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 246  Control washing and drying machinery in food operations

Assessment criteria

Outcome 1  Be able to prepare machinery for washing and drying according to specifications and procedures
The learner can:
1.1  Check the availability of items for washing and drying against specifications
1.2  Set up washing and drying machinery
1.3  Start up washing and drying machinery and check that it is working
1.4  Deal with problems to maintain schedules
1.5  Maintain communication with others throughout the washing and drying process.

Outcome 2  Be able to operate washing and drying machinery according to specifications and procedures
The learner can:
2.1  Control the infeed of items for washing
2.2  Control the progress of items during washing and drying
2.3  Control the output of washed and dried products
2.4  Deal with substandard or damaged items
2.5  Control transfer of washed and dried items for further use
2.6  Use personal protective equipment during washing and drying.

Outcome 3  Be able to shut down washing and drying machinery
The learner can:
3.1  Shut down the washers and dryers
3.2  Remove and dispose of debris to specified procedures
3.3  Check and ensure that washers and dryers are ready for further use
3.4  Complete all records and reports.
Unit 247  Understand how to control washing and drying machinery in food operations

Level: 2  
Credit value: 2  
UAN: T/601/4670

Unit aim
This unit supports workforce development for those who understand how to control washing and drying machinery, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know about controlling washing and drying machinery according to specifications and procedures
2. Know how to deal with problems during the washing and drying process

Guided learning hours
It is recommended that 12 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.108K Understand how to control washing and drying machinery in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling washing and drying machinery in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 247  
Understand how to control washing and drying machinery in food operations

Assessment criteria

Outcome 1  
Know about controlling washing and drying machinery according to specifications and procedures

The learner can:
1. Outline how to follow procedures for setting up, starting up, controlling and shutting down washing and drying machinery
2. Describe where to access procedures and why it is important to follow them
3. Outline the importance of recognising the correct settings for the types of items to be washed and dried
4. Explain the importance of checking that items have been washed and dried
5. Describe the limits of own authority and why it is important to work within them
6. State the procedures for communicating, reporting and recording and the importance of following them.

Outcome 2  
Know how to deal with problems during the washing and drying process

The learner can:
1. Explain how to recognise and deal with items that do not meet specification by isolating and reporting for maintenance or replacement
2. Outline the importance of working within procedures
3. Describe common sources of item damage during washing and drying
4. Describe how to avoid damaging items and what might happen if this is not done.
Unit 248  Control hygiene cleaning in food operations

Level: 2
Credit value: 3
UAN: J/601/8299

Unit aim
This unit supports workforce development for those who control hygiene cleaning in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare for cleaning according to company procedures and specifications
2. Be able to carry out cleaning according to company procedures and specifications
3. Be able to complete cleaning according to company procedures and specifications

Guided learning hours
It is recommended that 23 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.113S Control hygiene cleaning in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, controlling hygiene cleaning in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 248  Control hygiene cleaning in food operations
Assessment criteria

Outcome 1  Be able to prepare for cleaning according to company procedures and specifications
The learner can:
1.1 Establish cleaning requirements
1.2 Select cleaning equipment
1.3 Make sure the working area is in a safe state by
   - checking and preparing all equipment and machinery before starting cleaning
   - isolating equipment and machinery where required
1.4 Protect or clear the area of raw materials or product
1.5 Take actions within the limits of own authority throughout the preparation process
1.6 Maintain communication throughout the preparation process.

Outcome 2  Be able to carry out cleaning according to company procedures and specifications
The learner can:
2.1 Check personal protective equipment (PPE), cleaning solutions, materials and equipment comply with specification
2.2 Ensure that the cleaning is carried out without causing damage to plant and equipment
2.3 Comply with precautions to prevent the spread of contamination to other areas
2.4 Ensure that the cleaning is completed within the specified time
2.5 Report and take action to deal with any problems which arise during the cleaning.

Outcome 3  Be able to complete cleaning according to company procedures and specifications
The learner can:
3.1 Make sure the area is cleaned to agreed specifications
3.2 Re-instate plant, equipment and work areas and leave them fit for future use
3.3 Ensure cleaning materials and equipment and personal protective equipment (PPE), are returned to the right storage place in the specified condition
3.4 Identify, report and take action to deal with signs of contamination, damage or environmental issues
3.5 Dispose of waste or debris
3.6 Complete the required records and reports.
Unit 249  Understand how to control hygiene cleaning in food operations

Level: 2
Credit value: 3
UAN: M/601/8300

Unit aim
This unit supports workforce development for those who understand how to control hygiene cleaning, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Understand the requirements of hygiene cleaning in food operations
2. Understand how to prepare for hygiene cleaning in food operations safely
3. Understand how to carry out hygiene cleaning in food operations safely
4. Understand how to complete hygiene cleaning in food operations safely

Guided learning hours
It is recommended that 28 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.114K Understand how to control hygiene cleaning in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling hygiene cleaning in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 249  
Understand how to control hygiene cleaning in food operations

Assessment criteria

**Outcome 1  
Understand the requirements of hygiene cleaning in food operations**

The learner can:

1.1 Describe the types of unexpected situations that may occur when cleaning and how to deal with them

1.2 State when a permit to work is required and what might happen if it is not obtained before cleaning starts

1.3 Outline the importance of following company standards for the sequence of cleaning

1.4 State the frequency for cleaning and maintaining different items of equipment and what can happen if this is not done

1.5 Outline the importance of achieving and meeting the required standard of cleanliness and what may happen if this is not done.

**Outcome 2  
Understand how to prepare for hygiene cleaning in food operations safely**

The learner can:

2.1 Outline the importance of organising and coordinating the cleaning process

2.2 State how to use cleaning instructions and the risks involved in not following them

2.3 Outline the precautions to take to ensure that the product is not contaminated by cleaning materials and what to do if it is.

**Outcome 3  
Understand how to carry out hygiene cleaning in food operations safely**

The learner can:

3.1 State how to check personal protective clothing (PPE) is fit for purpose and how to use it

3.2 Outline what will happen if PPE is not used and what to do with equipment that is unfit for use

3.3 State how to use guards and warning notices and the possible consequences of not doing so

3.4 Describe how to ensure the complete removal of cleaning materials and what may happen if this is not done

3.5 State the actions to take if the cleaning cannot be completed within specified times.
Outcome 4  Understand how to complete hygiene cleaning in food operations safely

The learner can:

4.1  State reasons for sampling and what may happen if it is not carried out according to specified procedures

4.2  Outline the specified waste disposal procedures and what may happen if they are not followed

4.3  Outline the special precautions that need to be taken regarding potentially hazardous waste and what to do if something goes wrong

4.4  Describe the importance of identifying, reporting and handling any signs of:
   - contamination
   - damage
   - environmental concerns

4.5  State the importance of keeping records and what might happen if this is not done

4.6  State the importance of communicating and what may happen if this is not done.
Unit 250  Contribute to keeping the workplace secure in food operations

Level: 2  
Credit value: 1  
UAN: T/502/7442

Unit aim
This unit supports workforce development for those who contribute to keeping the workplace secure in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to identify and report security risks
2. Be able to follow procedures for dealing with security risks

Guided learning hours
It is recommended that 7 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.201S Contribute to keeping the workplace secure.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, contributing to keeping the workplace secure. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 250  Contribute to keeping the workplace secure in food operations

Assessment criteria

**Outcome 1  Be able to identify and report security risks**
The learner can:

1.1 Check how people are behaving and notice when their behaviour is a security risk
1.2 Check for unlocked or unattended areas or items that pose a security risk
1.3 Tell the relevant person about the security risk.

**Outcome 2  Be able to follow procedures for dealing with security risks**
The learner can:

2.1 Follow procedures for securing premises, stock and cash
2.2 Follow procedures for dealing with violent behaviour
2.3 Identify when theft may have occurred and report it to the relevant authority
2.4 Identify security risks
2.5 Take action to minimise security risk and maximise protection
2.6 Record and report all incidents clearly
2.7 Act within the boundaries of the law when dealing with those suspected of theft.
Unit 251  Understand how to contribute to keeping the workplace secure in food operations

Level: 2  
Credit value: 2  
UAN: T/502/7439

Unit aim
This unit supports workforce development for those who understand how to contribute to keeping the workplace secure, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are **three** learning outcomes to this unit. The learner will:
1. Know how workplace security can be compromised
2. Know how to help prevent security from being compromised
3. Know how to deal with breaches of security

Guided learning hours
It is recommended that **15** hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.202K Understand how to contribute to keeping the workplace secure.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to keeping the workplace secure. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 251  Understand how to contribute to keeping the workplace secure in food operations

Assessment criteria

Outcome 1  Know how workplace security can be compromised
The learner can:
1.1  Describe when and by whom people might be physically attacked
1.2  Describe how and when stock could be stolen or deliberately damaged
1.3  Describe how and when cash could be stolen.

Outcome 2  Know how to help prevent security from being compromised
The learner can:
2.1  Describe the procedures for keeping stock, premises and cash secure
2.2  List the key people to report security risks to.

Outcome 3  Know how to deal with breaches of security
The learner can:
3.1  Explain how to prevent or stop violent behaviour safely and legally
3.2  Describe what to do if someone is seen stealing
3.3  List the key people to report suspicions of theft to
3.4  State who to ask for help with breaches of security.
Unit 252  Contribute to maintaining stock security and minimising losses in food operations

Level: 2
Credit value: 2
UAN: D/601/5229

Unit aim
This unit supports workforce development for those who contribute to maintaining stock security and minimising losses in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to contribute to the maintenance of security according to specifications and procedures
2. Be able to contribute to the monitoring of losses and investigating problems according to specifications and procedures
3. Be able to implement procedures to deal with security alerts

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.203S Contribute to maintaining stock security and minimising losses in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, contributing to maintaining stock security and minimising losses in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 252  Contribute to maintaining stock security and minimising losses in food operations

Assessment criteria

Outcome 1  Be able to contribute to the maintenance of security according to specifications and procedures

The learner can:
1.1 Implement security checks and confirm that checks carried out by others are performed to specified procedures
1.2 Check for potential and actual breaches of security, including:
   - customer pilferage
   - staff pilferage
   - external threats
1.3 Outline the use of security systems and procedures to the relevant people
1.4 Make recommendations for action to control breaches of security and check they comply with legal and organisational requirements
1.5 Process the necessary documentation.

Outcome 2  Be able to contribute to the monitoring of losses and investigating problems according to specifications and procedures

The learner can:
2.1 Assess the actual losses against the potential loss forecast on a regular basis within limits of own authority
2.2 Identify and investigate indications of theft and unacceptable losses within limits of own authority
2.3 Contribute to establishing the causes of losses
2.4 Identify opportunities to minimise losses and make recommendations to the relevant people
2.5 Check that the actions agreed to minimise the risks of losses and theft are implemented according to specified procedures within limits of own authority
2.6 Process documentation required.

Outcome 3  Be able to implement procedures to deal with security alerts

The learner can:
3.1 Identify and deal with security alerts, including hoaxes, in accordance with organisational and legal requirements
3.2 Take action to deal with security alerts in ways which will minimise risks and maximise protection within limits of own authority
3.3 Report security alerts to the relevant people
3.4 Process documentation required.
Unit 253

Understand how to contribute to maintaining stock security and minimising losses in food operations

Level: 2
Credit value: 2
UAN: L/601/5243

Unit aim
This unit supports workforce development for those who understand how to contribute to maintaining stock security and minimising losses in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know about the requirements of stock security
2. Know about company procedures for maintaining stock security
3. Know how to implement security procedures and deal with security breaches

Guided learning hours
It is recommended that 9 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.204K Understand how to contribute to maintaining stock security and minimising losses in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to maintaining stock security and minimising losses in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 253  Understand how to contribute to maintaining stock security and minimising losses in food operations

Assessment criteria

Outcome 1  Know about the requirements of stock security
The learner can:
1.1 Outline the organisational policy, procedures and objectives of security procedures
1.2 Describe the implications of statutory legislation on security systems and procedures
1.3 Describe the documentation required to inform and maintain security procedures
1.4 Outline the importance of security in food operations and the potential effect of inadequate security systems and procedures
1.5 Outline the importance of minimising risks and maximising protection
1.6 Describe how to communicate security issues.

Outcome 2  Know about company procedures for maintaining stock security
The learner can:
2.1 Describe the organisational loss policy and its parameters
2.2 Describe procedures for dealing with losses and how to identify improvement opportunities
2.3 Explain how to check that security procedures are being followed according to specifications
2.4 Describe the roles, responsibilities and accountability of self and others
2.5 Outline how to make recommendations to control breaches of security.

Outcome 3  Know how to implement security procedures and deal with security breaches
The learner can:
3.1 Describe how to assess security problems
3.2 Describe how to carry out security checks
3.3 Describe how to recognise and respond to security alerts, including hoaxes, and how to report them
3.4 Describe how to identify breaches of security
3.5 Describe how to assess actual losses against forecast losses
3.6 State the need for accurate and complete records.
Unit 254  Control effluent treatment in food operations

Level: 2  
Credit value: 2  
UAN: R/601/5244

Unit aim  
This unit supports workforce development for those who control effluent treatment operations in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes  
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare equipment and materials to control effluent treatment  
2. Be able to monitor and control treatment operations according to procedures and specifications  
3. Be able to complete and shut down treatment operations according to procedures, specifications and legal requirements

Guided learning hours  
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.303S Control effluent treatment operations in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the skills of learners in the workplace, controlling effluent treatment in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 254  Control effluent treatment in food operations

Assessment criteria

Outcome 1  Prepare equipment and materials to control effluent treatment

The learner can:
1.1 Confirm that any required documentation is correct and equipment and materials are ready for use
1.2 Ensure that the equipment, materials and emergency equipment are ready for use
1.3 Wear and use appropriate personal protective equipment (PPE) according to specifications
1.4 Confirm that the treatment areas are clean and prepared for safe processing
1.5 Deal with operating problems or report them to the appropriate person
1.6 Maintain effective communication throughout the process.

Outcome 2  Monitor and control treatment operations according to procedures and specifications

The learner can:
2.1 Follow treatment procedures
2.2 Adjust process variations promptly to maintain treatment
2.3 Sample the treatment process
2.4 Confirm that treated effluent and any other products of the process meet specification.

Outcome 3  Complete and shut down treatment operations according to procedures, specifications and legal requirements

The learner can:
3.1 Shut down services
3.2 Identify treated effluent that is out of specification and report it to the appropriate person
3.3 Deal with outcomes of the treatment process
3.4 Ensure that all records are complete.
Unit 255  Understand how to control effluent treatment in food operations

Level: 2  
Credit value: 3  
UAN: Y/601/5245

Unit aim
This unit supports workforce development for those who understand how to control effluent treatment operations, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to control effluent treatment operations
2. Know how to follow all the relevant procedures for effluent treatment operations
3. Know how to carry out effluent treatment operations safely

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.304K Understand how to control effluent treatment operations in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling effluent treatment in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 255  Understand how to control effluent treatment in food operations

Assessment criteria

Outcome 1  Know how to control effluent treatment operations
The learner can:
1.1 Outline the function of the equipment used in effluent treatment operations
1.2 Explain how to confirm agreement between any required documentation and effluent materials
1.3 Explain how to record process operations and how to interpret process documentation
1.4 Outline why it is important to communicate clearly and what may happen if this is not done
1.5 Explain the consents and authorisations which apply to the operation and what may happen if these are not adhered to
1.6 Explain the implications of relevant legislation and the waste management licence on treatment process operations.

Outcome 2  Know how to follow all the relevant procedures for effluent treatment operations
The learner can:
2.1 Outline the procedures for checking and making ready process equipment
2.2 Outline the process operating procedures
2.3 Outline the procedures for handling effluent and treatment materials
2.4 Outline the procedures for dealing with
   - effluent
   - out-of-specification effluent
   - products of the treatment process
   - residual treatment materials from the work area
2.5 Outline the procedures for normal or maintenance shutdown.

Outcome 3  Know how to carry out effluent treatment operations safely
The learner can:
3.1 Describe the nature and hazards of effluent and treatment materials and the precautions to be used in handling them
3.2 Describe the safe working practices associated with the process
3.3 Explain how to use safety and emergency equipment and Personal Protective Equipment (PPE)
3.4 Describe how to check availability of equipment and confirm it is in good working order
3.5 Describe how to use the process equipment safely
3.6 Describe the emergency equipment associated with the process and how to use it.
Common Operations units
Unit 256  Understand how to monitor effluent treatment in food operations

Level: 2  
Credit value: 2  
UAN: D/601/5246

Unit aim
This unit supports workforce development for those who understand how to monitor effluent treatment, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to monitor effluent treatment operations
2. Know how to deal with problems during the treatment process

Guided learning hours
It is recommended that 18 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.304K Understand how to control effluent treatment operations in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when monitoring effluent treatment in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 256  Understand how to monitor effluent treatment in food operations

Assessment criteria

Outcome 1  Know how to monitor effluent treatment operations
The learner can:
1.1 Outline the effluent treatment process and the methods of monitoring it
1.2 Describe good housekeeping practices and standards
1.3 Describe how to adjust the process to meet specification range
1.4 Outline the sampling procedures and how to treat samples taken
1.5 Explain how to interpret sampling results
1.6 Describe how to identify out-of-specification effluent
1.7 Describe how to document and record treatment operations.

Outcome 2  Know how to deal with problems during the treatment process
The learner can:
2.1 Describe the factors which might interfere with processing operations and the corrective actions to be taken to deal with them
2.2 Outline precautions to be taken when dealing with hazards from
   • effluent
   • out-of-specification effluent
   • products
   • treatment materials
2.3 Describe the symptoms of out-of-specification processing
2.4 Outline procedures for dealing with spillage
2.5 State the limits of own authority for taking corrective action
2.6 State who to advise when circumstances are outside own area of authority.
Unit 259  Maintain product quality in food operations

Level: 2  
Credit value: 2  
UAN: T/601/2899

Unit aim
This unit supports workforce development for those who maintain product quality in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to conduct quality checks
2. Be able to communicate results of quality checks

Guided learning hours
It is recommended that 5 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
Assessment requirements or guidance specified by a sector or regulatory body (if appropriate) This unit is designed to assess the skills of learners in the workplace, maintaining product quality in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 259  Maintain product quality in food operations

Assessment criteria

Outcome 1  Be able to conduct quality checks
The learner can:
1.1 Carry out quality checks within limit of own authority
1.2 Compare the results of quality checks to required standards
1.3 Record the results of quality checks.

Outcome 2  Communicate results of quality checks
The learner can:
2.1 Record quality checks on correct documentation
2.2 Communicate results of quality checks
2.3 Check that all required records are accurate and complete.
Unit 260  Understand how to maintain product quality in food operations

Level: 2
Credit value: 2
UAN: H/601/2901

Unit aim
This unit supports workforce development for those who understand how to maintain product quality, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to carry out quality checks
2. Know how to record and store information accurately
3. Know about the importance of communicating results

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when maintaining product quality in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. It is recommended that this unit is taken with the relevant Occupational Skills Unit. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 260  Understand how to maintain product quality in food operations

Assessment criteria

Outcome 1  Know how to carry out quality checks
The learner can:
1.1  State the importance of carrying out quality checks
1.2  Describe procedures to deal with non-conformance against the required standards
1.3  Describe the limits of own authority when reporting quality checks.

Outcome 2  Know how to record and store information accurately
The learner can:
2.1  State why records should be kept securely
2.2  State the importance of maintaining accurate records.

Outcome 3  Know about the importance of communicating results
The learner can:
3.1  State the methods of communicating results of quality checks
3.2  Describe the importance of working within own limits of responsibility.
Unit 257  Work effectively with others in food operations

Level: 2  
Credit value: 2  
UAN: H/601/2896

Unit aim
This unit supports workforce development for those who work effectively with others in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to work effectively in a team
2. Be able to give and receive information to and from team colleagues
3. Be able to work with team colleagues to improve the way work is done

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PL.202S Work effectively with others in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, working effectively with others in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 257 Work effectively with others in food operations

Assessment criteria

Outcome 1 Be able to work effectively in a team
The learner can:

1.1 Work with others to meet the objectives of the team, own objectives and the organisation’s objectives
1.2 Make suggestions to improve work activities
1.3 Use initiative to assist team members
1.4 Respond to suggestions made by colleagues for the organisation
1.5 Deal with differences of opinion in ways that do not cause offence
1.6 Respect colleagues from different ethnic and religious backgrounds in terms of their opinions and beliefs.

Outcome 2 Be able to give and receive information to and from team colleagues
The learner can:

2.1 Check the team have instructions for their work
2.2 Demonstrate the team understand what is required of them to carry out work
2.3 Actively seek information when necessary
2.4 Advise others in the team using information that is up-to-date, relevant and accurate
2.5 Provide information which will help team colleagues to achieve tasks.

Outcome 3 Be able to work with team colleagues to improve the way work is done
The learner can:

3.1 Inform the relevant person when tasks cannot be completed
3.2 Suggest ways to improve the way work is organised
3.3 Make suggestions about how work can be better organised.
Unit 258  Understand how to work effectively with others in food operations

Level: 2  Credit value: 2  UAN: K/601/2897

Unit aim
This unit supports workforce development for those who understand how to work effectively with others, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know how to work effectively in a team
2. Know how to give and receive information to and from team colleagues
3. Know how to work with team colleagues to improve the way work is done

Guided learning hours
It is recommended that 18 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
Assessment requirements or guidance specified by a sector or regulatory body (if appropriate) This unit is designed to assess the knowledge and understanding of learners in the workplace context, when working effectively with others in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. It is recommended that this unit is taken with the relevant Occupational Skills Unit. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 258 Understand how to work effectively with others in food operations

Assessment criteria

Outcome 1 Know how to work effectively in a team
The learner can:
1.1 State the objectives of the team, own objectives and the organisation’s objectives
1.2 Describe the importance and key features of the organisation's procedures relating to
   - Health and safety
   - Food safety
   - Environmental health
1.3 Describe the organisation’s grievance and disciplinary procedures
1.4 State the importance of developing and keeping good working relationships with colleagues in the team
1.5 Describe how to deal with differences of opinion without causing offence
1.6 State the importance of showing respect for colleagues
1.7 Demonstrate how to show respect to colleagues.

Outcome 2 Know how to give and receive information to and from team colleagues
The learner can:
2.1 Describe their own work responsibilities and when to ask for help
2.2 State who should be asked for help
2.3 State the importance of asking for help when it is needed
2.4 State the importance of sharing opinions and information when working in a team
2.5 State the importance of offering useful advice to team colleagues.

Outcome 3 Know how to work with team colleagues to improve the way work is done
The learner can:
3.1 List different types of information that is important to teamwork
3.2 State the importance of communicating information to the relevant person
3.3 State the importance of referring unresolved difficulties to the appropriate person when team working.
Unit 261 Maintain workplace food safety standards in operations

Level: 2
Credit value: 2
UAN: K/601/2902

Unit aim
This unit supports workforce development for those who maintain workplace food safety standards in a food or animal feed business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to keep the workspace clean
2. Be able to maintain food safety

Guided learning hours
It is recommended that 16 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit FS.103S Maintain workplace food safety standards in manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, maintaining workplace food safety standards in operations or animal feed production. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 261  
Maintain workplace food safety standards in operations

Assessment criteria

Outcome 1  
Be able to keep the workspace clean
The learner can:
1.1 Keep work area clean and tidy
1.2 Maintain tools, utensils and equipment in a hygienic condition
1.3 Store tools, utensils and equipment correctly
1.4 Keep ingredients and products in their assigned places.

Outcome 2  
Be able to maintain food safety
The learner can:
2.1 Prevent product contamination and cross contamination
2.2 Follow procedures for dealing with product contamination and cross contamination
2.3 Follow procedures for substances that may cause allergic reactions
2.4 Dispose of food waste and scrap according to procedures.
Unit 262  Understand how to maintain workplace food safety standards in operations

Level: 2
Credit value: 2
UAN: M/601/2903

Unit aim
This unit supports workforce development for those who understand how to maintain workplace food safety standards, in a food or animal feed business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know the importance of safe food handling practices  
2. Know how to deal with pests and infestations  
3. Know the importance of minimising the risks of contamination and food poisoning

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit FS.104K Understand how to maintain workplace food safety in manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when maintaining workplace food safety standards in operations or animal feed production. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 262 Understand how to maintain workplace food safety standards in operations

Assessment criteria

**Outcome 1 Know the importance of safe food handling practices**
The learner can:
1.1 Outline the importance of food handling practices in maintaining food safety
1.2 Describe how personal hygiene and behaviour affect food safety
1.3 Explain the importance of treating and covering cuts, boils, skin infections and grazes
1.4 Describe how to treat and cover cuts, boils, skin infections and grazes
1.5 Explain the importance of cleaning and maintenance of the environment and equipment, and their impact on food safety
1.6 Describe the importance of keeping food at specified temperatures
1.7 Outline the causes of food spoilage and how to recognise it
1.8 Describe what action to take in order to reduce food spoilage.

**Outcome 2 Know how to deal with pests and infestations**
The learner can:
2.1 Describe the main type of pests and infestations and how they occur
2.2 Describe how to prevent infestation
2.3 Describe how to recognise infestations
2.4 Outline the procedures to follow on discovering infestation.

**Outcome 3 Know the importance of minimising the risks of contamination and food poisoning**
The learner can:
3.1 Describe the types of product contamination, cross contamination and food poisoning
- Bacteria
- Chemicals
- Physical objects
- Substances that cause allergic reactions
3.2 Describe how to prevent contamination and cross contamination from occurring
3.3 Explain how food poisoning enters food and factors that affect its growth
3.4 Describe the symptoms of food poisoning
3.5 Describe how to prevent food poisoning from occurring.
Unit 263 Maintain workplace health and safety in food operations

Level: 2
Credit value: 2
UAN: M/601/2917

Unit aim
This unit supports workforce development for those who operate safely in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to work within organisational safety limits
2. Be able to follow organisational emergency procedures
3. Be able to use personal protective equipment

Guided learning hours
It is recommended that 4 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit H5.101S Maintain workplace and health and safety in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace when operating safely in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 263 Maintain workplace health and safety in food operations

Assessment criteria

Outcome 1 Be able to work within organisational safety limits
The learner can:
1.1 Follow operational requirements according to Standard Operating Procedures (SOP)
1.2 Maintain responsible behaviour at work in line with company policies
1.3 Work without causing risks or danger to self and others
1.4 Carry out instructions according to safety notices, hazard and warning signs
1.5 Report hazards, defects and faults to the relevant people
1.6 Keep the workplace and work surfaces clean and clear of hazards
1.7 Follow organisational procedures for reporting sickness, disease and health risks

Outcome 2 Be able to follow organisational emergency procedures
The learner can:
2.1 Locate emergency escape routes and procedures
2.2 Keep emergency escape routes clear of obstructions
2.3 Use safety systems and alarms correctly
2.4 Follow the specified procedures in an emergency.

Outcome 3 Be able to use personal protective equipment
The learner can:
3.1 Identify and locate suitable personal protective equipment necessary for work activities
3.2 Use and wear personal protective equipment in accordance with organisational procedures
3.3 Dispose of personal protective equipment after use.
Unit 264  Understand how to maintain workplace health and safety in food operations

Level: 2  
Credit value: 2  
UAN: T/601/2918

Unit aim
This unit supports workforce development for those who understand workplace health and safety in food manufacture, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know the main safety risks and hazards in the working environment
2. Know the health and safety precautions and procedures in the workplace
3. Know the health and safety features of equipment and materials

Guided learning hours
It is recommended that 18 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit HS.103K Understand workplace health and safety in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when understanding workplace health and safety in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 264  Understand how to maintain workplace health and safety in food operations

Assessment criteria

Outcome 1  Know the main safety risks and hazards in the working environment

The learner can:
1.1 Describe how to define and identify health and safety hazards and risks in the workplace
1.2 List the main health risks in the workplace and steps that can be taken to control them
1.3 Describe the most common causes of accidents in the workplace and steps that help to prevent them
1.4 State the importance of safety notices and hazard warning signs
1.5 List the hazards, defects and faults that may arise in the workplace
1.6 State how to avoid or minimise the effects in the workplace of health and safety:
   - hazards
   - defects
   - faults
1.7 Describe the range and care of personal protective equipment.

Outcome 2  Know the health and safety precautions and procedures in the workplace

The learner can:
2.1 List the safety precautions required in the workplace
2.2 Describe safe working practices and the importance of following them
2.3 Describe how to contact and obtain help from colleagues with first aid qualifications
2.4 Outline the procedures that should be followed in different emergencies and why they should be followed
2.5 Describe the importance of considering health and safety precautions when planning tasks
2.6 Describe what might happen if tasks are planned without attention to health and safety precautions
2.7 State how to report accidents and incidents
2.8 Describe the importance of reporting accidents and incidents following company procedures.

Outcome 3  Know the health and safety features of equipment and materials

The learner can:
3.1 List the rules and hazards associated with particular equipment
3.2 State the reasons for using specified tools and equipment
3.3 Describe how tools and equipment should be maintained and stored correctly
3.4 Describe how to isolate faulty and defective equipment
3.5 Outline the importance of adjusting workplace equipment to suit the individual
3.6 List the hazardous substances that are in the workplace
3.7 Describe steps that should be taken to protect individuals from hazardous substances in the workplace
3.8 Describe storage methods for materials and chemicals.
Unit 265
Contribute to continuous improvement for achieving excellence in food operations

Level: 2
Credit value: 3
UAN: H/601/2929

Unit aim
This unit supports workforce development for those who contribute to continuous improvement in a food business. The unit is designed for use primarily by operatives or team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to identify improvements in the workplace
2. Be able to share and communicate own ideas for improvement
3. Be able to agree, test and evaluate plan for improvements

Guided learning hours
It is recommended that 14 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit QI.2055 Contribute to continuous improvement for achieving excellence in a food environment.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, contributing to continuous improvement for achieving excellence in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 265 Contribute to continuous improvement for achieving excellence in food operations

Assessment criteria

Outcome 1 Be able to identify improvements in the workplace
The learner can:
1.1 Identify and make positive suggestions about areas for improvement
1.2 Gather accurate information about potential improvements
1.3 Check that suggestions for improvement can be justified and are realistic.

Outcome 2 Be able to share and communicate own ideas for improvement
The learner can:
2.1 Share ideas for improvement with relevant people and react positively to feedback received
2.2 Communicate finalised ideas in sufficient detail to enable further action to be agreed.

Outcome 3 Be able to agree, test and evaluate plan for improvements
The learner can:
3.1 Work with others to agree an effective action plan for putting improvement ideas into action
3.2 Make a positive contribution to putting the plan into action
3.3 Test and accurately check improvements to find out how effective they are before recommending further action
3.4 Evaluate the effectiveness of improvements that have been introduced.
Unit 266 Understand how to contribute to continuous improvement for achieving excellence in food operations

Level: 2
Credit value: 2
UAN: Y/601/2930

Unit aim
This unit supports workforce development for those who need to understand how to contribute to continuous improvement for achieving excellence, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know about the importance of continuous improvement in food operations
2. Know about the resources and measures to support a continuous improvement activity in food operations
3. Know how to support and communicate continuous improvement activity in food operations

Guided learning hours
It is recommended that 12 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit QI.206K Understand how to contribute to continuous improvement for achieving excellence in a food environment.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to continuous improvement for achieving excellence in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 266  Understand how to contribute to continuous improvement for achieving excellence in food operations

Assessment criteria

Outcome 1  Know about the importance of continuous improvement in food operations

The learner can:
1.1 State which work area/food operations activity is to be considered for continuous improvement practice
1.2 Outline the health, safety and hygiene requirements of the area in which the continuous improvement activity is to be carried out
1.3 State why continuous improvement is necessary and what the potential benefits are
1.4 Describe the food operations activity considered for review
1.5 Outline the importance of planning improvements.

Outcome 2  Know about the resources and measures to support a continuous improvement activity in food operations

The learner can:
2.1 State the required production/activity rate for the operations activity
2.2 Outline the resources required by the operations activity
2.3 Outline the potential sources of waste associated with the operations activity
2.4 State the measures available to control waste
2.5 State the improvement targets and objectives set for the work operation
2.6 State the role of standard operating procedures in contributing to continuous improvement.

Outcome 3  Know how to support and communicate continuous improvement activity in food operations

The learner can:
3.1 Outline how own knowledge and experience can add value to the improvement process
3.2 Describe how to support the identification of potential improvements
3.3 Describe how to identify problems and opportunities for solving them
3.4 Describe how to contribute to discussions and respond to possible disagreements in a positive and constructive manner
3.5 State the extent of own authority, and the person to report to in the event of problems that cannot be resolved
3.6 State how improvements are communicated in own work area
3.7 Outline how to provide information to support the evaluation of improvement activities.
Unit 267 Clean In Place (CIP) plant and equipment in food operations

Level: 2  
Credit value: 3  
UAN: K/601/8313

Unit aim
This unit supports workforce development for those who clean in place (CIP) plant and equipment in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Be able to prepare to clean in place
2. Be able to carry out clean in place
3. Be able to complete clean in place

Guided learning hours
It is recommended that 19 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit SO.103S Clean In Place (CIP) plant and equipment in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, Cleaning In Place (CIP) plant and equipment in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner’s working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 267  Clean In Place (CIP) plant and equipment in food operations

Assessment criteria

**Outcome 1  Be able to prepare to clean in place**
The learner can:
1.1 Prepare plant, equipment and materials as scheduled and isolate where required
1.2 Obtain and check personal protective equipment is fit for use
1.3 Obtain and prepare cleaning materials
1.4 Make sure that all actions taken are within the limits of own authority
1.5 Maintain communication throughout the cleaning process.

**Outcome 2  Be able to carry out clean in place**
The learner can:
2.1 Carry out and monitor the cleaning process in line with specifications
2.2 Carry out cleaning in a way that does not damage plant, materials, products and equipment
2.3 Take the necessary precautions to make sure that product is not contaminated by cleaning materials
2.4 Complete cleaning within the required time
2.5 Use personal protective equipment during cleaning.

**Outcome 3  Be able to complete clean in place**
The learner can:
3.1 Carry out sampling where required
3.2 Make sure that plant, equipment and work areas are fit for future use after cleaning
3.3 Identify and report any signs of contamination, damage or environmental concerns
3.4 Dispose of waste according to specified procedures
3.5 Return cleaning materials and equipment to safe and secure storage
3.6 Inform those who need to know that Cleaning In Place has been completed
3.7 Put protective clothing and equipment in the specified place after use
3.8 Complete all records and reports
Unit 268  
Understand how to prepare for and conduct Cleaning In Place (CIP) of plant and equipment in food operations

Level:  2  
Credit value:  2  
UAN:  M/601/8314

Unit aim
This unit supports workforce development for those who understand how to prepare for and conduct Cleaning In Place (CIP) of plant and equipment, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Know how to prepare to clean in place
2. Know how to clean in place

Guided learning hours
It is recommended that 12 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.104K Understand how to clean in place (CIP) plant and equipment in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when preparing for and conducting Cleaning In Place (CIP) of plant and equipment in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 268  Understand how to prepare for and conduct Cleaning In Place (CIP) of plant and equipment in food operations

Assessment criteria

Outcome 1  Know how to prepare to clean in place
The learner can:
1.1 Describe where to obtain and how to interpret specifications and what might happen if this is not done
1.2 Describe the types and uses of cleaning materials
1.3 Outline COSHH and risk assessment requirements, precautions to be taken when handling or storing cleaning materials and what might happen if this does not happen
1.4 Outline when a permit to work is required, how it is used, and what might happen if it is not obtained before cleaning starts
1.5 Describe how to use guards and warning notices and why this is important
1.6 Describe what might happen if the required protective clothing is not worn according to specifications
1.7 Explain the importance of following the cleaning specification and describe what might happen if it is not followed.

Outcome 2  Know how to clean in place
The learner can:
2.1 State what the CIP system procedures are, where to find them, and what might happen if they are not followed
2.2 Describe the specified set-up of valves, pipes, pumps and CIP points and what might happen if they are not set up according to specifications
2.3 Describe how to re-assemble plant and equipment
2.4 Explain the importance of leaving plant, equipment and work areas fit for use
2.5 Describe the importance of communicating clearly and what may happen if this is not done
2.6 Explain the importance of checking for and detecting leaks, blockages, pump failures and other problems, and reporting them promptly.
Unit 269  Understand how to avoid contamination and complete Cleaning In Place (CIP) of plant and equipment in food operations

Level: 2  
Credit value: 2  
UAN: T/601/8315  

Unit aim  
This unit supports workforce development for those who understand how to avoid contamination and complete Cleaning In Place (CIP) of plant and equipment, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes  
There are two learning outcomes to this unit. The learner will:
1. Know how to avoid contamination  
2. Know how to complete cleaning in place

Guided learning hours  
It is recommended that 13 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.104K Understand how to clean in place (CIP) plant and equipment in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when avoiding contamination and completing Cleaning In Place (CIP) of plant and equipment in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 269 Understand how to avoid contamination and complete Cleaning In Place (CIP) of plant and equipment in food operations

Assessment criteria

**Outcome 1  Know how to avoid contamination**
The learner can:
1.1 Describe the precautions to take to make sure that products are not contaminated by cleaning materials
1.2 Describe what evidence of contamination might be found and the actions to take if this evidence is found
1.3 Explain the procedures for checking and ensuring cleaning has been effective
1.4 Describe the actions to take in the event of ineffective cleaning
1.5 Outline the need to identify and report any signs of contamination, damage or environmental concerns and what may happen if this is not done.

**Outcome 2  Know how to complete cleaning in place**
The learner can:
2.1 Explain why it is important to keep records and what might happen if this is not done
2.2 Explain the importance of cleaning and storing equipment according to specified procedures after use
2.3 Describe what might happen if the specified waste disposal procedures are not followed.
Unit 270  Carry out task hand-over procedures in food manufacture

Level:  2  
Credit value:  2  
UAN:  A/601/8316

Unit aim
This unit supports workforce development for those who carry out task hand-over procedures in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Be able to hand over responsibility to another person
2. Be able to take over responsibility from another person

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) skills unit PO.111S Carry out task hand-over procedures in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the skills of learners in the workplace, carrying out task hand-over procedures in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 270  
Carry out task hand-over procedures in food manufacture

Assessment criteria

Outcome 1  
Be able to hand over responsibility to another person
The learner can:
1.1 Take precautions to ensure that production is not interrupted during hand-over
1.2 Maintain quality standards during task hand-over
1.3 Provide information to those who need to know
1.4 Exchange information in an appropriate place.

Outcome 2  
Be able to take over responsibility from another person
The learner can:
2.1 Take precautions to ensure that production is not interrupted during hand-over
2.2 Maintain quality standards during hand-over
2.3 Obtain required information from the other person and clarification where necessary
2.4 Exchange information in an appropriate place.
Unit 271  Understand how to carry out task hand-over procedures in food manufacture

Level: 2
Credit value: 1
UAN: F/601/8317

Unit aim
This unit supports workforce development for those who understand how to carry out task hand-over procedures, in a food business. The unit is designed for use primarily by operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There is one learning outcome to this unit. The learner will:
1. Know how to carry out task hand-over procedures

Guided learning hours
It is recommended that 7 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.112K Understand how to carry out task hand-over procedures in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the knowledge and understanding of learners in the workplace context, when carrying out task hand-over procedures in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 271 Understand how to carry out task hand-over procedures in food manufacture

Assessment criteria

Outcome 1 Know how to carry out task hand-over procedures

The learner can:

1.1 Describe the production schedules and the operation of the quality systems relevant to the work area

1.2 Explain the specified machine settings to meet quality standards and what may happen if they are not met

1.3 State the origins and destinations of materials and products

1.4 Describe the importance of accurately:
   - providing or obtaining information
   - interpreting information

1.5 Outline the consequences of using inaccurate information.
Food Operations Knowledge Units
Unit 007  
Principles of using Information Communication Technology (ICT) and Management Information Systems (MIS) in food technology

Level: 3
Credit value: 3
UAN: M/602/4498

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of using Information Communication Technology (ICT) and Management Information Systems (MIS) in food technology, or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Understand ICT and MIS systems used within food and drink businesses
2. Understand how ICT and MIS systems are used within food and drink businesses

Guided learning hours
It is recommended that 23 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of using Information Communication Technology and Management Information Systems in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 007 Principles of using Information Communication Technology (ICT) and Management Information Systems (MIS) in food technology

Assessment criteria

Outcome 1 Understand ICT and MIS systems used within food and drink businesses

The learner can:
1.1 Identify the types of ICT and MIS systems and how they are used within food and drink businesses
1.2 Outline the processes, facilities and equipment that are required to provide ICT and MIS systems
1.3 Describe the potential shortfalls of ICT and MIS systems

Outcome 2 Understand how ICT and MIS systems are used within food and drink businesses

The learner can:
2.1 Explain how ICT systems are used to collect and store process data
2.2 Describe how to use ICT and MIS systems to:
   • input
   • store
   • process
   • retrieve data
   • evaluate
   • present data
2.3 Explain how to maintain the security, integrity and accuracy of ICT and MIS systems
2.4 Describe how to evaluate the effectiveness of ICT and MIS systems
2.5 Describe how ICT and MIS systems influence and are influenced by quality assurance systems
2.6 Outline how to plan, monitor and control the application and performance of ICT and MIS systems
Unit 008  Principles of sensory assessment in food technology

Level: 3
Credit value: 3
UAN: Y/502/7496

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of sensory testing in food technology, in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Understand the physiological and psychological factors influencing sensory assessments
2. Understand the importance of flavour in the sensory assessment of food and drink products

Guided learning hours
It is recommended that 22 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit FT.114K Principles of sensory assessment in food technology.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of sensory testing in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 008  
Principles of sensory assessment in food technology

Assessment criteria

Outcome 1  Understand the physiological and psychological factors influencing sensory assessments

The learner can:
1.1 Explain the principles of visual perception in relation to food and drink
1.2 Describe the role of colour in influencing consumer reactions
1.3 Outline the physiological processes associated with taste detection
1.4 Detail the psychological and physiological factors that can impact on sensory tests

Outcome 2  Understand the importance of flavour in the sensory assessment of food and drink products

The learner can:
2.1 Explain the different flavour sensations and their respective receptors
2.2 Describe how different tastes interact when combined
2.3 Identify the various flavour components
2.4 Describe how flavour is broken down into components
2.5 Describe how mouth feel influences the perception of food products
2.6 Explain the different textures associated with food and drink products
Unit 009  Principles of weights and measures in food technology

Level: 3  
Credit value: 4  
UAN: A/602/4505

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of weights and measures in food technology, in a food environment or in a learning environment. The unit is designed for use primarily by technicians, managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the legal and regulatory requirements for weighing and measuring food and drink products
2. Understand the processes of weighing and measuring food and drink products
3. Understand how to quality assure the weighing and measuring of food and drink products

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.118K Principles of weights and measures in food technology.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of weights and measures in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 009  Principles of weights and measures in food technology

Assessment criteria

Outcome 1  Understand the legal and regulatory requirements for weighing and measuring food and drink products

The learner can:
1.1 Describe the purpose of weights and measures in the food and drink sector
1.2 Explain the units of weights and measures
1.3 Outline the legal or regulatory requirements that control how food is sold by weight, number and measure
1.4 Explain the implications of inaccuracy when weighing and measuring
1.5 Describe how UK legal and regulatory requirements are monitored and enforced

Outcome 2  Understand the processes of weighing and measuring food and drink products

The learner can:
2.1 Describe the facilities and equipment required to weigh and measure food and drink
2.2 Outline the manner of marking weights and measures and the permitted symbols and abbreviations
2.3 Outline the processes, facilities and equipment that are required to weigh and measure food
2.4 Explain why weighing and measuring devices and processes must be calibrated
2.5 Describe how to undertake the calibration of weighing/measuring devices
2.6 Describe how weighing devices can become inaccurate and develop errors

Outcome 3  Understand how to quality assure the weighing and measuring of food and drink products

The learner can:
3.1 Describe how to interpret process specifications for weighing and measuring data
3.2 Outline the risks associated with inaccurate weighing
3.3 Describe the implications for quality control associated with weighing and measuring
3.4 Outline the quality assurance processes that are needed to support weighing and measuring
3.5 Outline the recording and reporting systems that are needed to support the weighing and measuring processes
Unit 010  Principles of cleaning raw food materials

Level: 3  
Credit value: 3  
UAN: T/602/4552

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of cleaning raw food materials, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the rationale for cleaning and separation technology
2. Understand the processes for cleaning raw food materials without using water
3. Understand the processes for cleaning raw food materials using water

Guided learning hours
It is recommended that 22 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.142K Principles of cleaning raw food materials.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of cleaning raw food materials. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 010 Principles of cleaning raw food materials

Assessment criteria

Outcome 1 Understand the rationale for cleaning and separation technology

The learner can:

1.1 Compare the advantages and disadvantages of using mechanised picking machines to hand picking raw food materials
1.2 Explain the rationale for cleaning raw food materials after harvesting
1.3 Summarise the multistage separation methodology used for the cleaning of raw food materials
1.4 Explain how combinations of cleaning methods can be used to obtain the optimum results for specific raw food materials.

Outcome 2 Understand the processes for cleaning raw food materials without using water

The learner can:

2.1 Summarise which raw food materials are best cleaned without using water
2.2 Explain why some raw materials are best cleaned without water
2.3 Explain the characteristics of and equipment used in the processes for separating raw material from contaminants including:
   - Continuous Drum Screening
   - aspiration process
2.4 Outline how metal detectors and magnets are used to identify and remove metal contaminants from raw materials.

Outcome 3 Understand the processes for cleaning raw food materials using water

The learner can:

3.1 Summarise which raw food materials are best cleaned using water
3.2 Explain why specific raw good materials can be soaked or agitated in water as a preliminary treatment to cleaning
3.3 Explain how Spray Washing is used to clean raw materials
3.4 Explain the characteristics of, and equipment used in the Floatation Washing process for separating raw material from contaminants.
Unit 011 Principles of sorting and grading produce and food materials

Level: 3  
Credit value: 3  
UAN: A/602/4553

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of sorting and grading produce and food materials, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the definitions and rationale for sorting and grading food materials
2. Understand equipment and methods used for sorting food materials
3. Understand the quality factors used in grading food materials

Guided learning hours
It is recommended that 22 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.143K Principles of sorting and grading produce and food materials.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of sorting and grading produce and food material. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 011  Principles of sorting and grading produce and food materials

Assessment criteria

**Outcome 1  Understand the definitions and rationale for sorting and grading food materials**
The learner can:
1.1 Summarise the definition of sorting produce and food materials
1.2 Summarise the definition of grading produce and food materials
1.3 Explain the rationale for sorting and grading food materials after cleaning
1.4 Outline the separation methodology for sorting and grading food materials

**Outcome 2  Understand equipment and methods used for sorting food materials**
The learner can:
2.1 Explain why sorting is necessary in preparation for mechanical food processing
2.2 Explain why sorting is important to the effective packaging of fresh produce
2.3 Summarise which foods can be sorted by weight
2.4 Explain the types of equipment used to sort by weight and how this equipment functions
2.5 Summarise which foods can be sorted by colour
2.6 Explain the types of equipment used to sort by colour and how this equipment functions

**Outcome 3  Understand the quality factors used in grading food materials**
The learner can:
3.1 Explain how the quality parameters for grading reflect the intended use of the produce or food materials
3.2 Summarise the importance of the common quality criteria for grading to include;
   - shape
   - size
   - colour
   - freedom from damage and contamination
3.3 Explain the importance of including quality criteria such as texture, crumb and eating quality when grading food products.
Unit 012 Principles of bulk size reduction of produce and food materials

Level: 3
Credit value: 4
UAN: F/602/4554

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of bulk size reduction of produce and food materials, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Understand the rationale and purpose of bulk size reduction
2. Understand the purpose and characteristics of crushing and grinding processes in bulk size reduction
3. Understand the purpose and characteristics of cutting, dicing and shredding processes in bulk size reduction
4. Understand the purpose and methodology of pulping in bulk size reduction

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.144K Principles of bulk size reduction of produce and food materials.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of sorting and grading produce and food material. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 012 Principles of bulk size reduction of produce and food materials

Assessment criteria

Outcome 1 Understand the rationale and purpose of bulk size reduction
The learner can:
1.1 Clarify the definition of size reduction as it relates to produce and other food materials
1.2 Explain the rationale for the size reduction of produce and food materials after sorting and grading
1.3 Explain the role of size reduction in the preparation of convenience foods and for other processes including:
   - blanching
   - canning
   - juice extraction.

Outcome 2 Understand the purpose and characteristics of crushing and grinding processes in bulk size reduction
The learner can:
2.1 Summarise the purpose of crushing plant prior to size reduction processes
2.2 Clarify which types of food materials are commonly processed using crushing
2.3 Explain the characteristics of grinding processes including
   - hammer mills
   - disc mills
   - pin mills
   - ball mills
2.4 Outline types of food materials which are not suited to grinding processes

Outcome 3 Understand the purpose and characteristics of cutting, dicing and shredding processes in bulk size reduction
The learner can:
3.1 Summarise the purpose of cutting and dicing plant as size reduction processes
3.2 Explain the characteristics of reduction using cutting and dicing equipment
3.3 Summarise the type of food materials which are commonly processed using cutting and dicing
3.4 Explain the characteristics of shredding processes
3.5 Summarise the type of food materials which are commonly processed by shredding
3.6 Explain why cutting, dicing and shredding processes increase the surface area of food material for further processing

Outcome 4 Understand the purpose and methodology of pulping in bulk size reduction
The learner can:
4.1 Summarise the purpose of pulping plant as a size reduction process
4.2 Outline how pulping is carried out in juice and extract making plants
4.3 Explain how pulping equipment operates in juice and extract making plants
Unit 013  Principles of freezing methods in food technology

Level: 3  
Credit value: 4  
UAN: F/602/4506

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of freezing methods in food technology, in food operations or in a learning environment. The unit is designed for use primarily by technicians, managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Understand how the freezing process preserves and stores foods
2. Understand the technical aspects of freezing on foods
3. Understand freezing methods in food technology
4. Understand the cold chain distribution of frozen foods

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.123K Principles of freezing methods in food technology.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of freezing methods in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 013  Principles of freezing methods in food technology

Assessment criteria

Outcome 1  Understand how the freezing process preserves and stores foods
The learner can:
1.1 Explain how freezing acts as a preservation method for foods
1.2 Explain how freezing affects the storage life of foods
1.3 Describe the process of freezing in foods including:
   - ice crystal formation
   - concentration of dissolved substances
   - temperature requirements
   - tempering

Outcome 2  Understand the technical aspects of freezing on foods
The learner can:
2.1 Summarise the effect of freezing on plant cell material
2.2 Explain the definition and importance of the thermal arrest period to food product quality
2.3 Summarise the affect of freezing on animal tissue
2.4 Explain meaning of the term “quick-freezing”
2.5 Explain the term “deep-freezing” as defined by the International Institute of Refrigeration
2.6 Explain how food products can be individually quick frozen
2.7 Clarify the advantages of individually quick freezing vegetables and fruits.

Outcome 3  Understand freezing methods in food technology
The learner can:
3.1 Explain the use and functionality of the:
   - immersion-freezing method
   - plate freezing method
   - blast freezing method
3.2 Explain the use and functionality of
   - fluidised bed freezers
   - cryogenic freezers
   - liquid carbon dioxide freezers.

Outcome 4  Understand the cold chain distribution of frozen foods
The learner can:
4.1 Outline how the cold chain works in the distribution of frozen foods
4.2 Explain the profile of temperature maintenance across the breadth of the cold chain
Unit 014  Principles of homogenisation in food technology

Level: 3
Credit value: 4
UAN: J/602/4555

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of homogenisation in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Understand the principles of homogenisation in food processing
2. Understand how emulsifiers work in food processing
3. Understand how pressure homogenisers are used in food processing
4. Understand how colloidal mills are used in food processing

Guided learning hours
It is recommended that 30 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.145K Principles of homogenisation in food technology.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of homogenisation in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 014  Principles of homogenisation in food technology

Assessment criteria

Outcome 1  Understand the principles of homogenisation in food processing

The learner can:
1.1 Explain the purpose of homogenisation of food mixtures
1.2 Describe which types of food are normally blended by the homogenisation processes
1.3 Explain how homogenisation operates as both a mixing and size reduction process
1.4 Summarise how liquid droplets are broken down (size reduced) during homogenisation
1.5 Explain how crude emulsions are formed.

Outcome 2  Understand how emulsifiers work in food processing

The learner can:
2.1 Explain how the action of emulsifiers extend the longer term stability of an homogenised emulsion
2.2 Describe the chemical work of emulsifiers to emulsify a lipid within a water medium
2.3 Summarise the main naturally occurring emulsifiers and artificial emulsifiers used to process specific food products
2.4 Explain the difference between naturally occurring emulsification and assisted emulsification during the homogenisation process

Outcome 3  Understand how pressure homogenisers are used in food processing

The learner can:
3.1 Describe the purpose of pressure homogenisation and when it is used
3.2 Explain how a pressure homogeniser works and the equipment used in the process
3.3 Explain which types of food products are best suited to homogenisation in a pressure homogeniser

Outcome 4  Understand how colloidal mills are used in food processing

The learner can:
4.1 Describe the purpose of colloidal mills
4.2 Explain how a colloidal mill works and the equipment used in the process
4.3 Explain which types of food products are best suited to homogenisation in a colloidal mill
**Unit 015  Principles of filtration in food technology**

**Level:** 3  
**Credit value:** 4  
**UAN:** H/502/7498

**Unit aim**  
This unit supports workforce and/or vocational development for those who need to understand the principles of filtration in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

**Learning outcomes**  
There are three learning outcomes to this unit. The learner will:
1. Understand the purpose and application of filtration
2. Understand clarification, filter media and filter aids in food filtration
3. Understand food process filtration methodology

**Guided learning hours**  
It is recommended that 26 hours should be allocated for this unit, although patterns of delivery are likely to vary.

**Details of the relationship between the unit and relevant national standards**  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.146K Principles of filtration in food technology.

**Support of the unit by a sector or other appropriate body**  
This unit is endorsed by Improve.

**Assessment**  
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of filtration in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 015 Principles of filtration in food technology
Assessment criteria

**Outcome 1  Understand the purpose and application of filtration**
The learner can:
1.1 Explain the purpose of filtration in food processing
1.2 Justify when it is more appropriate to use a food filtration technique than alternative separation technology
1.3 Summarise what types of foods are normally separated by filtration processes

**Outcome 2  Understand clarification, filter media and filter aids in food filtration**
The learner can:
2.1 Explain what the process of clarification is in food filtration technology
2.2 Define the terms
   - filtrate
   - filter medium
   - filter cake
2.3 Describe the types of filter media commonly used in food filtration technology
2.4 Justify how filter media are selected for specific food types
2.5 Explain how filter media are cleaned and disposed of
2.6 Explain the functions of filter aids
2.7 Explain what materials are commonly used as filter aids in food filtration

**Outcome 3  Understand food process filtration methodology**
The learner can:
3.1 Explain the typical structure and operation of a plate and frame press
3.2 Explain how a vacuum can be used as an alternative to pressure, to assist in speeding up the filtration process
3.3 Explain typical structure and operation of a continuous rotary drum vacuum filter.
Unit 016  Principles of centrifugation in food technology

Level: 3  
Credit value: 3  
UAN: J/502/7493

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of centrifugation in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the principles of centrifugation in food processing
2. Understand the application of centrifugation in food processing
3. Understand the economics of centrifugation technology

Guided learning hours
It is recommended that 28 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.147K Principles of centrifugation in food technology.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of centrifugation in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 016  Principles of centrifugation in food technology

Assessment criteria

Outcome 1  Understand the principles of centrifugation in food processing

The learner can:
1.1 Explain the purpose of centrifugation of foods in food technology
1.2 Define ‘centrifugal force’
1.3 Explain how centrifuges separate food components
1.4 Explain the importance of the specific gravity of food components during centrifugation
1.5 Summarise the types of food normally separated by centrifugation technology

Outcome 2  Understand the application of centrifugation in food processing

The learner can:
2.1 Explain how cream separators work on the centrifuge principle
2.2 Explain how oils can be purified by centrifugation
2.3 Explain how beer can be clarified by centrifugation
2.4 Explain how yeast can be separated by centrifugation
2.5 Explain how sugar can be refined using centrifugation

Outcome 3  Understand the economics of centrifugation technology

The learner can:
3.1 Explain how the type of food material affects the economic decision to use centrifugation or an alternative separation technique
3.2 Explain the economics of operating continuous centrifugation equipment for specified food types
Unit 017  Principles of blanching in food technology

Level:  3
Credit value:  3
UAN:  L/502/7494

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of blanching in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the purpose and importance of blanching
2. Understand how steam, water and microwave blanching is carried out
3. Understand how to test and improve blanching

Guided learning hours
It is recommended that 21 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.148K Principles of blanching in food technology.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of blanching in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 017  Principles of blanching in food technology
Assessment criteria

Outcome 1  Understand the purpose and importance of blanching
The learner can:
1.1 Outline the purpose of food size reduction and washing/cleaning, in preparation for blanching
1.2 Explain the objectives of the blanching process including:
   • enzyme inactivation
   • colour preservation
1.3 Justify why many prepared foods are blanched before further processing.

Outcome 2  Understand how steam, water and microwave blanching is carried out
The learner can:
2.1 Explain what equipment to use and how to carry out the blanching process using:
   • steam
   • water
   • microwave
2.2 Summarise the effects of steam or water blanching on food products
2.3 Compare the advantages and disadvantages of steam, water and microwave blanching.

Outcome 3  Understand how to test and improve blanching
The learner can:
3.1 Explain how the effectiveness of blanching can be tested using the peroxidase test
3.2 Evaluate the optimal temperatures and times for effective blanching
3.3 Review the functions of additives which can be used to improve product quality during blanching.
Unit 018 Principles of irradiation in food technology

Level: 3  
Credit value: 4  
UAN: R/502/7495

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of irradiation in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the features and affects of ionising radiation
2. Understand the radiation sources of irradiation
3. Understand the types of irradiation technologies and the economics of irradiation

Guided learning hours
It is recommended that 34 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.149K Principles of irradiation in food technology.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of irradiation in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.
Unit 018 Principles of irradiation in food technology
Assessment criteria

Outcome 1 Understand the features and affects of ionising radiation
The learner can:
1.1 Summarise the physical advantages of the affects of ionising radiation to food
1.2 Explain how ionising radiation can cause the formation of reactive molecules and free radicals in some foods
1.3 Explain how ionising radiation can cause the production of off-flavours and the degradation of vitamins in some foods
1.4 Diagnose what the evidence is for the breakdown of food components and absence of toxicity in irradiated foods, being comparable to that in non-irradiated foods.

Outcome 2 Understand the radiation sources of irradiation
The learner can:
2.1 Summarise when and what types of irradiated foods were allowed to be sold and consumed in the UK
2.2 Describe the types of radiation used as sources of ionising radiation for foods:
   - electron produced linear accelerators
   - gamma rays from decay of cobalt 60 and caesium 137
2.3 Clarify what the evidence is for the absence of residual radioactivity in irradiated foods.

Outcome 3 Understand the types of irradiation technologies and the economics of irradiation
The learner can:
3.1 Critically compare the advantages and disadvantages of the use of the types of radiation sources
3.2 Explain how radiation sterilisation or radappertisation is carried out, its characteristics and the equipment used
3.3 Summarise why products which are sterilised by radappertisation require aseptic packaging
3.4 Explain how radiation pasteurisation or radurization is carried out, its characteristics and equipment used
3.5 Evaluate the success and affects of ionising radiation on:
   - potatoes
   - vegetables
   - fruit
   - poultry products
3.6 Evaluate the economics of food irradiation and continuous processing.
Unit 019  Principles of aseptic packaging in food technology

Level: 3
Credit value: 3
UAN: L/602/4556

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of aseptic packaging in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the definition and hermetic sealing of aseptic packaging
2. Understand the UHT milk processing as an example of aseptic packaging technology
3. Understand sterilisation in food technology

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.151K Principles of aseptic packaging in food technology.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of aseptic packaging in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 019 Principles of aseptic packaging in food technology

Assessment criteria

Outcome 1  Understand the definition and hermetic sealing of aseptic packaging

The learner can:
1.1  Explain the definition of aseptic packaging
1.2  Explain the importance of hermetically sealing aseptic products
1.3  Describe how hermetic sealing is carried out.

Outcome 2  Understand the UHT milk processing as an example of aseptic packaging technology

The learner can:
2.1  Describe how Ultra-High Temperature (UHT) milk is processed
2.2  Critically compare the advantages of UHT milk treatments over traditional in-bottle long process sterilisation techniques
2.3  Explain how Uperization achieves rapid milk sterilization.

Outcome 3  Understand sterilisation in food technology

The learner can:
3.1  Explain how sterilisation is carried out in the production of
   • aseptic soups
   • ice-cream mixtures
   • custards
3.2  Explain how sterilisation is carried out in the production of aseptic soft drinks
3.3  Evaluate the use of micro-filters for the sterilisation of heat sensitive food products.
Unit 020  Principles of bar coding in food operations

Level:  3  
Credit value:  3  
UAN:  D/602/4562

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of bar coding, in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the form and data capture of bar codes
2. Understand the infrastructure required to implement and maintain bar coding
3. Understand the organisation and control of bar coding

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.152K Principles of bar coding in a food and drink.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of bar coding in food and drink. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 020 Principles of bar coding in food operations

Assessment criteria

Outcome 1 Understand the form and data capture of bar codes
The learner can:
1.1 Describe the form and structure of a bar code
1.2 Explain how bar coding stores product data
1.3 Explain the different types of bar code used for food and drink products.

Outcome 2 Understand the infrastructure required to implement and maintain bar coding
The learner can:
2.1 Summarise the systems, equipment and processes that are required to implement bar coding systems
2.2 Explain the role of bar coding in product traceability and stock control from food producer to consumer
2.3 Outline the processes, facilities and equipment that are required to bar code food and drink products.

Outcome 3 Understand the organisation and control of bar coding
The learner can:
3.1 Describe the organisation and control of the bar coding processes
3.2 Evaluate the risks associated with inaccurate bar coding
3.3 Explain common quality problems associated with the bar coding process
3.4 Explain how to develop contingency processes for dealing with product that has been incorrectly bar coded
3.5 Explain the quality assurance systems required to support bar coding processes
3.6 Summarise the recording and reporting systems that are needed to support bar coding in food and drink production.
Unit 021  Principles of paper and board packaging in food operations

Level: 3
Credit value: 4
UAN: K/602/4564

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of paper and board packaging, in food and drink operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Understand the sources and business uses of paper and board packaging
2. Understand paper processing and its suitability as a packaging material
3. Understand board processing and its suitability as a packaging material
4. Understand the promotional role and disposal arrangements for paper and board packaging

Guided learning hours
It is recommended that 34 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge standard FT.153K Principles of paper and board packaging in food and drink.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of paper and board packaging in food and drink. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 021  Principles of paper and board packaging in food operations

Assessment criteria

Outcome 1  Understand the sources and business uses of paper and board packaging

The learner can:
1.1 Describe the origins and sources of paper and board packaging material
1.2 Explain how paper and board packaging materials can be used as part of a sustainable policy
1.3 Compare the business advantages for using paper and board packaging materials to other non-biodegradable materials
1.4 Summarise the limitations of food safe packaging material
1.5 Outline the regulations for using food safe packaging.

Outcome 2  Understand paper processing and its suitability as a packaging material

The learner can:
2.1 Describe how paper is processed into food safe packaging material
2.2 Explain the purposes and functions of paper packaging food products
2.3 Summarise the typical uses of paper and waxed paper packaging material
2.4 Evaluate the suitability of paper based packaging material in the freezing and storage of food products
2.5 Evaluate the suitability of paper based packaging material in providing a substrate for advertising, labelling and bar coding.

Outcome 3  Understand board processing and its suitability as a packaging material

The learner can:
3.1 Describe how board is processed into different types of food safe packaging material
3.2 Explain the purposes and functions of board packaging food and drink products
3.3 Summarise the options for treating board for use in direct contact with food or drink
3.4 Explain the typical uses for board, waxed board and lined board packaging material for food and drink products
3.5 Evaluate the suitability of board based packaging material in the freezing and storage of food products
3.6 Evaluate the suitability of board based packaging material in providing a substrate for advertising, labelling and bar coding.

Outcome 4  Understand the promotional role and disposal arrangements for paper and board packaging

The learner can:
4.1 Describe the role of paper and board packaging materials in promoting and advertising products
4.2 Explain how paper and board packaging materials are best recycled and disposed of after use by wholesalers, retailers and consumers
Unit 022  Principles of plastic and cellulose films in food and drink

**Level:** 3  
**Credit value:** 4  
**UAN:** M/602/4565

**Unit aim**  
This unit supports workforce and/or vocational development for those who need to understand the principles of plastic and cellulose films in food and drink, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

**Learning outcomes**  
There are **five** learning outcomes to this unit. The learner will:

1. Understand the sources and business use of plastic and cellulose films
2. Understand cellulose processing and its suitability as a packaging film
3. Understand polythene based processing and suitability as packaging film
4. Understand polycarbonate based processing and suitability as packaging material
5. Understand the promotional role and disposal arrangements for plastic and cellulose based packaging

**Guided learning hours**  
It is recommended that **34** hours should be allocated for this unit, although patterns of delivery are likely to vary.

**Details of the relationship between the unit and relevant national standards**  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit FT.154K Principles of plastic and cellulose films in food and drink.

**Support of the unit by a sector or other appropriate body**  
This unit is endorsed by Improve.

**Assessment**  
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of plastic and cellulose films in food and drink. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 022 Principles of plastic and cellulose films in food and drink

Assessment criteria

Outcome 1 Understand the sources and business use of plastic and cellulose films
The learner can:
1.1 Describe the origins and sources of plastic and cellulose packaging films
1.2 Explain how plastic and cellulose packaging materials can be used as part of a sustainable policy approach to the use of packaging films
1.3 Explain what the business advantages might be for using plastic and cellulose packaging films over other types of packaging films
1.4 Explain what the limitations and regulations are in the use of food safe packaging films

Outcome 2 Understand cellulose processing and its suitability as a packaging film
The learner can:
2.1 Explain the structure of cellulose and its properties in providing a packaging film
2.2 Describe how cellulose is processed into food safe packaging film
2.3 Explain the purpose of cellulose packaging film for food products
2.4 Summarise the grades of cellulose film available, their functionality and use of codes
2.5 Describe the typical uses for cellulose packaging film for food products
2.6 Evaluate the suitability of cellulose based packaging film in the freezing and storage of food products

Outcome 3 Understand polythene based processing and suitability as packaging film
The learner can:
3.1 Describe how polythene films are made
3.2 Explain the properties and functionality of low density and high density polythene films
3.3 Describe how polypropylene films are made
3.4 Explain the properties and functionality of:
   • cast
   • oriented
   • coated oriented polypropylene films
3.5 Explain the properties and functionality polyvinylchloride and polyvinylidenechloride films and their use as cling or shrink wrap films
3.6 Evaluate the suitability of polythene based packaging film in the freezing and storage of food products
Outcome 4  **Understand polycarbonate based processing and suitability as packaging material**

The learner can:

4.1 Describe how polycarbonate packaging material is made
4.2 Explain the properties and functionality of polycarbonate packaging material
4.3 Describe the typical uses for polycarbonate packaging material for food and drink products
4.4 Evaluate the suitability of polycarbonate based packaging material in the freezing and storage of food products

Outcome 5  **Understand the promotional role and disposal arrangements for plastic and cellulose based packaging**

The learner can:

5.1 Explain the suitability of plastic and cellulose based packaging material in providing a substrate for advertising, labelling and bar coding
5.2 Explain the role of plastic and cellulose packaging material in promoting and advertising products
5.3 Explain how plastic and cellulose packaging materials are best recycled and disposed of after use by wholesalers, retailers and consumers.
Unit 102 Principles of raw food materials in food operations

Level: 3
Credit value: 2
UAN: D/602/4061

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of food and raw materials, in a food production business or in a learning environment. The unit is designed for use primarily by food production supervisors, and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand sources and functional role of raw materials used in food operations
2. Understand supply and production of raw food materials
3. Understand the use of additives in raw food materials

Guided learning hours
It is recommended that 14 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of food and raw materials. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 102  
Principles of raw food materials in food operations

Assessment criteria

Outcome 1  Understand sources and functional role of raw materials used in food operations

The learner can:

1.1 Outline the main sources of raw materials for use in food operations, to include:
   - cereals
   - fruits
   - vegetables
   - meat
   - fish
   - nuts
   - dairy products

1.2 Explain the functional role of raw materials as ingredients in finished products, to include:
   - preservation
   - enhanced eating qualities
   - nutritional value
   - ingredients lists

Outcome 2  Understand supply and production of raw food materials

The learner can:

2.1 Outline annual production figures required for annual UK consumption for raw materials, to include:
   - cereals
   - fruits
   - vegetables
   - meat
   - fish
   - nuts
   - dairy products

2.2 Outline the raw material production techniques to include:
   - cultivation and farming methods and conditions
   - intensive and extensive agriculture related to country of origin
   - production trends
   - health and safety requirements

2.3 Explain handling and transportation systems for raw materials, to include:
   - cereals
   - fruits
   - vegetables
   - meat
   - fish
   - nuts
   - dairy products
2.4 Explain factors affecting supply in the UK:
- political
- economic
- health scares
- environmental

2.5 Identify factors affecting storage:
- methods and conditions
- quality
- contamination
- health and safety requirements

**Outcome 3  Understand the use of additives in raw food materials**

The learner can:

3.1 Describe the categories of additives which are used to treat raw food materials
3.2 Describe the main function of each of the categories of additives in raw food materials
3.3 Describe the advantages and disadvantages of additives in raw food materials
3.4 State how raw food materials can be classified as organic foods
Unit 105  Principles of sustainability in food operations

Level: 3  
Credit value: 4  
UAN: L/601/2701

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of sustainability in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Understand the principles of sustainability
2. Understand factors affecting sustainability targets
3. Understand factors affecting support for sustainability targets
4. Understand the factors influencing the achievement of sustainability

Guided learning hours
It is recommended that 34 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SF.102K Principles of sustainability in a food environment.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of sustainability. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 105  Principles of sustainability in food operations
Assessment criteria

Outcome 1  Understand the principles of sustainability
The learner can:
1.1 Outline the key principles of environmental sustainability in a food environment in relation to:
   - energy
   - waste
   - water usage
   - transportation
1.2 Describe the relationship between sustainability and the three key elements of corporate social responsibility:
   - economic
   - social
   - environmental
1.3 Describe the benefits of sustainability to the organisation and its stakeholders
1.4 Summarise how sustainability impacts on all the component functions of an organisation

Outcome 2  Understand factors affecting sustainability targets
The learner can:
2.1 Outline how to establish targets for sustainable development, including the use of benchmarking
2.2 Explain how carbon currency data (carbon footprints) is used as an indicator of sustainability
2.3 Explain the importance of liaising with national policy-makers to determine the influence of government targets and legal requirements on organisational sustainability

Outcome 3  Understand factors affecting support for sustainability targets
The learner can:
3.1 Explain how continuous improvement supports sustainability
3.2 Explain how to gain the commitment of stakeholders to the development of sustainable food production
3.3 Outline how environmental management systems (EMS) are used to support sustainability in a food environment

Outcome 4  Understand the factors influencing the achievement of sustainability
The learner can:
4.1 Summarise the influences which impact upon the achievement of sustainability
4.2 Explain how to control the efficient use of resources within organisational activities to help achieve sustainability
4.3 Explain how the actions of others within the supply chain can influence sustainability
4.4 Explain the potential barriers to achieving sustainability and summarise ways these can be overcome
4.5 Describe how to access sources of advice and guidance on achieving sustainability
Unit 106  Principles of continuous improvement techniques (Kaizen) in food operations

Level: 3
Credit value: 3
UAN: F/601/2954

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of continuous improvement techniques (Kaizen) in food operations or in a learning environment. The unit is designed for use primarily by manager, technicians and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the features, importance of Kaizen activity
2. Understand the criteria and requirements for Kaizen and problem solving
3. Understand how to interact with Kaizen activity

Guided learning hours
It is recommended that 15 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit QI.207K Principles of continuous improvement techniques (Kaizen) in a food environment.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of continuous improvement techniques (Kaizen) in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 106  Principles of continuous improvement techniques (Kaizen) in food operations

Assessment criteria

Outcome 1  Understand the features, importance of Kaizen activity
The learner can:

1.1 Explain how the health, safety and hygiene requirements of a work area can influence a Kaizen activity
1.2 Summarise the main features of a Kaizen activity and the establishment of measurable improvements
1.3 Evaluate the importance of encouraging people to identify continuous improvements
1.4 Explain the evaluation of improvement ideas and selection of those that are to be pursued
1.5 Explain the function of standard operating procedures and specifications
1.6 Clarify the resources required to support production schedules and specifications
1.7 Describe why it is important to be clear about the levels of authority of personnel linked to problem resolution

Outcome 2  Understand the criteria and requirements for Kaizen and problem solving
The learner can:

2.1 Explain the criteria used to select an area/processing activity for Kaizen activity
2.2 Explain the importance of understanding the food process and/or activity under review
2.3 Summarise the requirements for the deployment of Kaizen, and the resources required by the activity
2.4 Explain the importance of waste in Kaizen activity and why inventory control is important to waste reduction
2.5 Explain how root cause analysis can support problem solving
2.6 Explain how own knowledge of food processing activities can support problem solving

Outcome 3  Understand how to interact with Kaizen activity
The learner can:

3.1 Explain the application of the Deming cycle (plan, do, check, act)
3.2 Explain how to engage the knowledge and experience of the people involved in the process in the development of improvement activities
3.3 Explain how to separate facts and opinions about the food operations and how these affect improvement actions
3.4 Explain the techniques used to visually communicate the work of the Kaizen activity to participants and others
3.5 Explain how to use calculations for identifying the required production rate for a process
3.6 Summarise the cycle time of a process
3.7 Explain the techniques used to distribute work content to balance cycle times to the rate of customer demand, and how to visually represent it including
   - Line balance
   - Process displays
Unit 272 Principles of product quality and improvements in food operations

Level: 2
Credit value: 2
UAN: L/502/7432

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of product quality and improvements in food operations, in a food processing business or in a learning environment. The unit is designed for use primarily by food processing operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Understand how to maintain product quality
2. Understand how to contribute to continuous improvements

Guided learning hours
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) QI.102K Understand how to maintain product quality in food manufacture and QI.113K Understand how to contribute to improvements in food manufacture

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of product quality and improvements in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 272 Principles of product quality and improvements in food operations

Assessment criteria

Outcome 1 Understand how to maintain product quality
The learner can:
1.1 Describe how to carry out quality checks
1.2 Outline the importance of carrying out quality checks
1.3 State action to take if quality checks show that product quality does not comply with the required standard
1.4 Describe how to keep records safe and secure, and the importance of doing so.

Outcome 2 Understand how to contribute to continuous improvements
The learner can:
2.1 Outline the importance of continuous improvement in food operations
2.2 Describe the short and long term benefits from improvements
2.3 Identify the information required to produce an effective action plan for improving operations
2.4 Describe the importance of checking effectiveness of improvements
Unit 273  The Principles of Food Safety for Manufacturing

Level: 2
Credit value: 1
UAN: K/502/0181

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of food safety for manufacturing, in a food business or in a learning environment. The unit is designed for use primarily by operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are four learning outcomes to this unit. The learner will:
1. Understand how individuals can take personal responsibility for food safety
2. Understand the importance of keeping him/herself clean and hygienic
3. Understand how the working areas are kept clean and hygienic
4. Understand the importance of keeping products safe

Guided learning hours
It is recommended that 9 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit FS.103S Maintain workplace food safety standards in manufacture, FS.104K Understand how to maintain workplace food safety in manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of food safety for manufacturing. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 273 The Principles of Food Safety for Manufacturing

Assessment criteria

**Outcome 1  Understand how individuals can take personal responsibility for food safety**

The learner can:

1.1 Outline the importance of food safety procedures, risk assessment, safe food handling, avoiding unsafe behaviour
1.2 Describe how to report food safety hazards, infestations and food spoilage
1.3 Outline the legal responsibilities of food handlers/food operatives and food business operators.

**Outcome 2  Understand the importance of keeping him/herself clean and hygienic**

The learner can:

2.1 Explain the importance of personal hygiene in food safety including their role in reducing the risk of contamination
2.2 Describe effective personal hygiene practices, for example, protective clothing, hand washing, personal illnesses, cuts and wounds.

**Outcome 3  Understand how the working areas are kept clean and hygienic**

The learner can:

3.1 Explain how to keep the work area and equipment clean and tidy to include cleaning methods, safe use of chemicals, storage of cleaning materials
3.2 State the importance of safe waste disposal
3.3 Outline the importance of pest control.

**Outcome 4  Understand the importance of keeping products safe**

The learner can:

4.1 State the risk to food safety from contamination and cross contamination to include microbial, chemical, physical and allergenic hazards, vehicles of contamination
4.2 State how contamination of food can cause illness or injury
4.3 Describe safe food handling practices and procedures
4.4 Explain the importance of temperature controls
4.5 Describe stock control procedures including deliveries, storage, date marking and stock rotation
4.6 Explain how to deal with food spoilage to include recognition, reporting and disposal.
Unit 274  Principles of using and storing materials in food operations

Level:  2  
Credit value:  1  
UAN:  R/502/7433

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of using and storing materials in food operations, in a food processing business or in a learning environment. The unit is designed for use primarily by food processing operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Understand how to store and handle ingredients and materials  
2. Understand the systems used to control the handling and storage of materials

Guided learning hours
It is recommended that 7 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.109K Understand how to store goods and materials in food manufacture and SD.110K Understand how to store and organise goods and materials in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of using and storing materials in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 274  
Principles of using and storing materials in food operations

Assessment criteria

**Outcome 1**  
**Understand how to store and handle ingredients and materials**

The learner can:

1.1 List the different types of facilities available to store ingredients and materials
1.2 Describe how to assess the suitability of storage facilities for ingredients and materials
1.3 Compare the storage requirements for different types of ingredients and materials
1.4 Outline methods that can be used to handle ingredients to protect them from damage and possible contamination
1.5 State the importance of using correct handling techniques when working with different types ingredients and materials.

**Outcome 2**  
**Understand the systems used to control the handling and storage of materials**

The learner can:

2.1 Outline key features of legislation relating to the safe storage of ingredients and materials
2.2 Outline the control systems in place to track the flow of materials:
   - into storage
   - within storage
   - out of storage
2.3 Describe how work schedules and operating procedures impact on activity storage areas
2.4 Describe the record keeping required for tracking materials and the importance of these records in food manufacturing.
Unit 275  Principles of packing and labelling food products in food operations

Level: 2  
Credit value: 2  
UAN: Y/502/7434

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of packing and labelling food products in food operations, in a food processing business or in a learning environment. The unit is designed for use primarily by food processing operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand how to prepare for packing
2. Understand how to prepare for labelling
3. Understand how to carry out packing and labelling in food manufacture

Guided learning hours
It is recommended that 13 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SD.305K Understand how to pick orders and store in despatch in food manufacture, SD.311K Understand how to produce product packs in food manufacture and SD.313K Understand how to pack orders in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of packing and labelling food products in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 275  Principles of packing and labelling food products in food operations

Assessment criteria

Outcome 1  Understand how to prepare for packing

The learner can:
1.1 List the different types of packaging material used to pack food products
1.2 Describe the importance of avoiding contamination and product damage
1.3 Describe the importance of picking orders according to instructions
1.4 Identify the different methods used to dispose of excess or unused packaging material.

Outcome 2  Understand how to prepare for labelling

The learner can:
2.1 Summarise the main coding and labelling information required to comply with legislation
2.2 Compare the purposes and advantages of different types of packaging and labelling equipment
2.3 State how to deal with defective labelling materials or inoperative equipment.

Outcome 3  Understand how to carry out packing and labelling in food manufacture

The learner can:
3.1 State the importance of keeping the packing area:
   • clean
   • tidy
   • at the correct temperature
3.2 Outline the different methods used to pack food products
3.3 State how packing materials are affected by the physical characteristics of food products
3.4 Outline the importance of meeting deadlines for dispatching products
3.5 Outline the importance of complying with packing instructions and specifications.
Unit 276 Principles of Clean In Place (CIP) in food operations

Level: 2  
Credit value: 1  
UAN: D/502/7435

Unit aim  
This unit supports workforce and/or vocational development for those who need to understand the principles of clean in place (CIP) and disinfection in food operations, in a food processing business or in a learning environment. The unit is designed for use primarily by food processing operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Learning outcomes  
There are three learning outcomes to this unit. The learner will:
1. Understand the importance of cleaning processes  
2. Understand types of detergent and disinfectant  
3. Understand the main components of a Cleaning in Place (CIP) system

Guided learning hours  
It is recommended that 8 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.104K Understand how clean in place (CIP) plant and equipment in food manufacture and SO.106K Understand how to carry out disinfection in food manufacture.

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of clean in place (CIP) and disinfection in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 276  Principles of Clean In Place (CIP) in food operations

Assessment criteria

**Outcome 1  Understand the importance of cleaning processes**
The learner can:
1.1 Describe the importance of maintaining good hygiene in the workplace
1.2 Outline procedures to check for contamination
1.3 Describe the impact of contamination on the workplace and products
1.4 State actions required to deal with contamination
1.5 Describe the stages of cleaning
1.6 Outline procedures used to check cleaning has been effective

**Outcome 2  Understand types of detergent and disinfectant**
The learner can:
2.1 List the principal cleaning agents used in food operations
2.2 Describe the importance of following instructions when using cleaning agents and products
2.3 Define sterilisation and disinfection

**Outcome 3  Understand the main components of a Cleaning in Place (CIP) system**
The learner can:
3.1 Describe the components of a typical CIP circuit
3.2 Describe a typical centralised and decentralised CIP circuit
3.3 State the importance of hygienic design
3.4 List instrumentation and control equipment used for CIP
Unit 277  Principles of food processing operations

Level:  2  
Credit value:  1  
UAN:  H/502/7436

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of food processing operations, in a food processing business or in a learning environment. The unit is designed for use primarily by food processing operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Understand the systems and documents used to control processing operations
2. Understand the key stages of processing

Guided learning hours
It is recommended that 7 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.222K Understand how to control processes in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of food processing operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 277 Principles of food processing operations

Assessment criteria

Outcome 1 Understand the systems and documents used to control processing operations

The learner can:

1.1 Define standard operating procedures (SOP)
1.2 State the importance of SOPs in processing
1.3 Describe the importance of product specifications in food manufacture
1.4 Describe the importance of recording and reporting during processing operations

Outcome 2 Understand the key stages of processing

The learner can:

2.1 Describe the purpose and importance of procedures for task handover and shift changeovers
2.2 State how to check resources, equipment and materials pre-processing operations
2.3 Describe checks and controls used during processing operations
2.4 Outline how to complete and shut down processing operations
2.5 Describe how to ensure that improvements are identified and implemented in during processing
2.6 State the importance of communication during processing operations.
Unit 279  Principles of sharpening, maintaining and selecting cutting tools in food operations

Level: 2  
Credit value: 2  
UAN: K/502/7437

Unit aim  
This unit supports workforce and/or vocational development for those who need to understand the principles of sharpening, maintaining and selecting cutting tools and equipment in food operations, in a food processing business or in a learning environment. The unit is designed for use primarily by food processing operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Learning outcomes  
There are three learning outcomes to this unit. The learner will:
1. Understand tools and equipment maintenance  
2. Understand the methods for sharpening and maintaining cutting tools and equipment  
3. Understand how to select cutting tools and equipment for operations

Guided learning hours  
It is recommended that 11 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards  
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit SO.110K Understand how to prepare tools and equipment for use in food manufacture and SO.112K Understand how to sharpen tools for use in food manufacture

Support of the unit by a sector or other appropriate body  
This unit is endorsed by Improve.

Assessment  
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of sharpening, maintaining and selecting cutting tools and equipment in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy sets out the overarching assessment requirements.
Unit 279  Principles of sharpening, maintaining and selecting cutting tools and equipment in food operations

Assessment criteria

Outcome 1  Understand tools and equipment maintenance
The learner can:
1.1 Describe the main types of cutting tools and equipment and their uses
1.2 Describe the main types of powered tools and equipment for cutting
1.3 State the importance of keeping cutting tools and equipment sharp
1.4 Describe how cutting edges can become blunt and damaged
1.5 Describe how to minimise typical maintenance hazards.

Outcome 2  Understand the methods for sharpening and maintaining cutting tools and equipment
The learner can:
2.1 Compare the manual method for sharpening cutting tools to mechanical/automated sharpening
2.2 List techniques for checking that tools and equipment are effective
2.3 Describe how to deal with worn, damaged or broken cutting tools and equipment
2.4 State what a steel is and how it is used

Outcome 3  Understand how to select cutting tools and equipment for operations
The learner can:
3.1 State the importance of choosing the correct cutting tools and/or equipment
3.2 Describe factors to consider when choosing cutting tools/equipment
3.3 Outline PPE that should be used during cutting operations.
Unit 280  Principles of cans and closing cans in food manufacture

Level:  2  
Credit value:  2  
UAN:  K/602/0630

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of canning and closing cans in a food manufacturing business or in a learning environment. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Understand the requirements for canning
2. Understand the canning process

Guided learning hours
It is recommended that 10 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.237K Principles of cans and closing cans in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of canning and closing cans in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 280 Principles of cans and closing cans in food manufacture

Assessment criteria

Outcome 1 Understand the requirements for canning
The learner can:
1.1 Outline the regulatory requirements and the consequences if they are not followed
1.2 State the organisational standards and instructions and the possible consequences if they are not followed.

Outcome 2 Understand the canning process
The learner can:
2.1 Describe the principle characteristics of a can, including:
   - shape
   - dimensions
   - suitability for product
   - special features
   - wear and tear
2.2 Outline why the dimensions of a can are important
2.3 Describe the construction of a can, including a seamed end
2.4 Outline the materials used to construct cans and their main differences, including widgets
2.5 Describe how decoration is applied to cans and its importance
2.6 State how cans are recycled.
Unit 281  Principles of glass bottles and related closures in food manufacture

Level: 2  Credit value: 3  UAN: M/502/7438

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of glass bottles and related closures in a food manufacturing business or in a learning environment. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the features of glass bottles and related closures
2. Understand the production of glass bottles and related closures
3. Understand the requirements for producing glass bottles and related closures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.238K Principles of glass bottles and related closures in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of glass bottles and related closures in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 281  Principles of glass bottles and related closures in food manufacture

Assessment criteria

Outcome 1  Understand the features of glass bottles and related closures
The learner can:
1.1  Describe the main properties and constituents of glass
1.2  Outline the principal characteristics of a glass bottle, including
    •  shape
    •  dimensions
    •  suitability for product
    •  special features
    •  wear and tear
1.3  Describe the characteristics of glass colours
1.4  Describe the typical bottle and closure sizes
1.5  Outline the importance of bottle dimensions
1.6  Describe the types of closures and closure systems for glass bottles, including crowns.

Outcome 2  Understand the production of glass bottles and related closures
The learner can:
2.1  Describe the production of glass bottles and their main differences, including widgets
2.2  Describe the production problems related to applying closures of different types and sizes
2.3  Describe the identification and importance of critical defects
2.4  Outline the risks and hazards associated with glass bottling and closures
2.5  Describe the types of materials for labelling bottles and their application
2.6  Describe how glass bottles are recycled.

Outcome 3  Understand the requirements for producing glass bottles and related closures
The learner can:
3.1  Outline the regulatory requirements and the importance of following them
3.2  Outline the organisational standards and instructions and the importance of following them.
Unit 282  Principles of plastic bottles and related closures in food manufacture

Level: 2  
Credit value: 3  
UAN: K/502/7499

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of plastic bottles and related closures in a food manufacturing business or in a learning environment. The unit is designed for use primarily by food manufacturing operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the features of plastic bottles and related closures
2. Understand the production of plastic bottles and related closures
3. Understand the requirements for producing plastic bottles and related closures

Guided learning hours
It is recommended that 20 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit PO.239K Principles of plastic bottles and related closures in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of plastic bottles and related closures in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 282 Principles of plastic bottles and related closures in food manufacture

Assessment criteria

Outcome 1 Understand the features of plastic bottles and related closures
The learner can:
1.1 Describe the main types, properties and constituents of plastic bottles
1.2 Outline the principal characteristics of a plastic bottle including:
   • shape
   • dimensions
   • suitability for product
   • special features
   • wear and tear
1.3 Outline the characteristics of plastic colours
1.4 Describe the typical bottle and closure sizes
1.5 Outline the importance of bottle dimensions
1.6 Describe the types of closures and closure systems for plastic bottles.

Outcome 2 Understand the production of plastic bottles and related closures
The learner can:
2.1 Describe the production of plastic bottles and their main differences
2.2 Describe the production problems related to applying closures of different types and sizes
2.3 Describe the identification and importance of critical defects
2.4 Outline the risks and hazards associated with plastic bottling and closures
2.5 Describe the types of materials for labelling bottles and their application
2.6 Describe how different types of plastic bottles are recycled.

Outcome 3 Understand the requirements for producing plastic bottles and related closures
The learner can:
3.1 Outline the regulatory requirements and the importance of following them
3.2 Outline the organisational standards and instructions and the importance of following them.
Unit 283  Principles of HACCP based food safety systems

Level: 2  Credit value: 1  UAN: A/601/2631

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of HACCP based food safety management systems, in a food processing business or in a learning environment. The unit is designed for use primarily by food processing operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Know the purpose of a HACCP system
2. Know the features and terminology of HACCP
3. Know how a HACCP system is applied in the workplace

Guided learning hours
It is recommended that 8 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) FS.104K Understand how to maintain workplace food safety in manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners on or off-the-job, in the workplace context, for understanding the principles of HACCP food safety management systems. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.
Unit 283  Principles of HACCP based food safety systems

Assessment criteria

**Outcome 1  Know the purpose of a HACCP system**
The learner can:
1.1  State the need for HACCP systems
1.2  Outline the requirements of a HACCP system.

**Outcome 2  Know the features and terminology of HACCP**
The learner can:
2.1  Describe the features of a HACCP system
2.2  Outline the meaning of terms used in the HACCP system.

**Outcome 3  Know how a HACCP system is applied in the workplace**
The learner can:
3.1  Outline how a HACCP plan is developed
3.2  Describe an operatives’ responsibility within the HACCP system
3.3  State the importance of documenting, verifying and reviewing the HACCP system
Unit 284  Principles of evaporation in food operations

Level: 2
Credit value: 1
UAN: K/502/7356

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of evaporation, in a food manufacturing business or in a learning environment. The unit is designed for use primarily by operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Understand the evaporation process
2. Understand the technology of evaporation

Guided learning hours
It is recommended that 8 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) FS.104K Understand how to maintain workplace food safety in manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of evaporation in brewing. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 284 Principles of evaporation in food operations

Assessment criteria

Outcome 1 Understand the evaporation process
The learner can:
1.1. Describe the functions of single stage and multistage evaporation
1.2. Outline how evaporation reduces thermal damage to product
1.3. Outline how evaporation processes are used in food and drink manufacturing
1.4. Outline the key controls of the evaporation process.

Outcome 2 Understand the technology of evaporation
The learner can:
2.1. Describe how evaporation applications can be energy efficient
2.2. Describe how heat is transferred and lost during evaporation.
Unit 285  Principles of valves and pumps in food manufacture

Level: 2  
Credit value: 2  
UAN: H/601/5216

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of valves and pumps in a food manufacture business or in a learning environment. The unit is designed for use primarily by operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand how liquid flows in pipes
2. Understand types of valves used in food manufacture
3. Understand pump function and pump types used in food manufacture

Guided learning hours
It is recommended that 16 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standard (approved as National Occupational Standard) knowledge unit EM.105S Maintain plant and equipment in food manufacture and EM.106K Understand how to maintain plant and equipment in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of valves and pumps in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 285 Principles of valves and pumps in food manufacture

Assessment criteria

Outcome 1 Understand how liquid flows in pipes
The learner can:
1.1. Outline key features of laminar and turbulent flow
1.2. Describe key features of orifice meters, venture meters and rotameters.

Outcome 2 Understand types of valves used in food manufacture
The learner can:
2.1. Explain the following valve terms:
   - actuator
   - seat
   - valve body
   - leakage
   - trim
2.2. Describe valve types used in food manufacture to include:
   - butterfly
   - gate
   - ball
   - non return
   - single seat
   - double seat
   - mix proof
2.3. State what valve types are best selected for particular applications
2.4. Outline how to select valves for particular applications.

Outcome 3 Understand pump function and pump types used in food manufacture
The learner can:
3.1. Define the pump terminology to include:
   - power input and output
   - suction and delivery head
   - pump curves
3.2. Outline the function of the impellor and motor in a pump
3.3. Describe what cavitation is and how it can be avoided
3.4. Outline the key features of centrifugal and positive displacement pumps
3.5. Outline the practical considerations in pump selection for food manufacture.
Unit 286  Principles of plate heat exchangers in food manufacture

Level: 2
Credit value: 2
UAN: K/601/5217

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of plate heat exchangers, in a food or drink business or in a learning environment. The unit is designed for use primarily by operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand the technology of heat transfer
2. Understand the function of plate heat exchangers
3. Understand the function of plate heat pasteurisation

Guided learning hours
It is recommended that 16 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standards (approved as National Occupational Standards) knowledge unit PO.213S Control conditioning in food manufacture and PO.222K Understand how to control processes in food manufacture.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of plate heat exchangers. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 286  Principles of plate heat exchangers in food manufacture

Assessment criteria

**Outcome 1  Understand the technology of heat transfer**
The learner can:
1.1. Describe the key features of conduction
1.2. Describe the key features of convection
1.3. Describe the key features of radiation.

**Outcome 2  Understand the function of plate heat exchangers**
The learner can:
2.1. Outline the typical applications of plate heat exchangers in food manufacture
2.2. Describe how parallel flow and counter current flow works
2.3. Describe how plate fouling occurs and its impact on heat exchanger performance.

**Outcome 3  Understand the function of plate heat pasteurisation**
The learner can:
3.1. Describe what is meant by a Pasteurisation Unit (PU)
3.2. Outline the typical process flow through a plate pasteuriser
3.3. Describe what happens in the heating, holding & cooling sections of a pasteuriser
3.4. Describe the key process controls on a pasteuriser.
Unit 287 Principles of working in explosion risk areas in food operations

Level: 2
Credit value: 1
UAN: D/502/7354

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of working in explosion risk areas in a food and drink business or in a learning environment. The unit is designed for use primarily by operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are two learning outcomes to this unit. The learner will:
1. Understand the classifications and plant requirements for explosion risk areas
2. Understand the procedural requirements for explosion risk areas

Guided learning hours
It is recommended that 8 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standards (approved as National Occupational Standards) HS.107K Understand how to monitor procedures to control risk to health and safety

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of working in explosion risk areas in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 287 Principles of working in explosion risk areas in food operations

Assessment criteria

Outcome 1 Understand the classifications and plant requirements for explosion risk areas

The learner can:
1.1. Describe the different hazardous area classifications including;
   • explosion risk areas
   • ATEX compliance
1.2. Outline the special requirements for tools and equipment used
1.3. Outline the specialist fixtures and fittings requirements.

Outcome 2 Understand the procedural requirements for explosion risk areas

The learner can:
2.1. Outline the main procedural requirements for working in explosion risk areas
2.2. Outline the main features of the explosion protection document
2.3. Describe the personal and protective equipment requirements for working in explosion risk areas
2.4. Describe the maintenance requirements for working in explosion risk areas.
Unit 288    Principles of instrumentation and control systems in food operations

Level: 2  
Credit value: 3  
UAN: M/502/7357

Unit aim
This unit supports workforce and/or vocational development for those who need to understand the principles of instrumentation and control systems in a food manufacturing business or in a learning environment. The unit is designed for use primarily by operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Learning outcomes
There are three learning outcomes to this unit. The learner will:
1. Understand computer controlled systems
2. Understand process instrumentation equipment
3. Understand process control equipment in brewing

Guided learning hours
It is recommended that 17 hours should be allocated for this unit, although patterns of delivery are likely to vary.

Details of the relationship between the unit and relevant national standards
This unit of assessment relates directly to Improve Sector Performance Standards (approved as National Occupational Standards) PO.222K Understand how to control processes in food manufacture and FT.106K Principles of using ICT and MIS in food technology.

Support of the unit by a sector or other appropriate body
This unit is endorsed by Improve.

Assessment
This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of instrumentation and control systems in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding. The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.
Unit 288  
**Principles of instrumentation and control systems in food operations**

**Assessment criteria**

**Outcome 1  Understand computer controlled systems**
The learner can:
1.1. Outline the main stages and parts of plant in the processing area
1.2. Describe typical uses of computer controlled systems in food operations
1.3. Outline the requirements of a computer controlled system
1.4. Describe a typical computer controlled system lay out
1.5. Explain the system terms:
   - Network
   - Plc
   - SCADA
   - MIS
1.6. State where trends for main process control parameters can be accessed
1.7. State where quality control and stock information can be accessed.

**Outcome 2  Understand process instrumentation equipment**
The learner can:
2.1. Describe the key features of measurement and maintenance of process instrumentation
2.2. Outline how different types of sensors work including:
   - pressure based sensors
   - temperature based sensors
   - flow based sensors
2.3. Outline the key applications for sensors including:
   - pressure based sensors
   - temperature based sensors
   - flow based sensors.

**Outcome 3  Understand process control equipment in brewing**
The learner can:
3.1. Outline the key features of digital and analogue control systems
3.2. Outline the key features of closed loop systems
3.3. Describe types of control modes including:
   - on/off
   - differential gap
   - time proportional
3.4. Describe what is meant by modulating control.
Appendix 1  Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the Centres and Training Providers homepage on www.cityandguilds.com.

The Centre Manual - Supporting Customer Excellence contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve ‘approved centre’ status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document includes sections on:

- The centre and qualification approval process
- Assessment, internal quality assurance and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Management systems
- Maintaining records
- Assessment
- Internal quality assurance
- External quality assurance.

Our Quality Assurance Requirements encompasses all of the relevant requirements of key regulatory documents such as:

- SQA Awarding Body Criteria (2007)
- NVQ Code of Practice (2006)
and sets out the criteria that centres should adhere to pre and post centre and qualification approval.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The centre homepage section of the City & Guilds website also contains useful information such as:

- **Walled Garden**: how to register and certificate candidates on line
- **Events**: dates and information on the latest Centre events
- **Online assessment**: how to register for e-assessments.
Useful contacts

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<th>UK learners</th>
<th>T: +44 (0)844 543 0033</th>
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<tbody>
<tr>
<td></td>
<td>E: <a href="mailto:learnersupport@cityandguilds.com">learnersupport@cityandguilds.com</a></td>
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<td>International learners</td>
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<tr>
<td>General qualification information</td>
<td>E: <a href="mailto:intcg@cityandguilds.com">intcg@cityandguilds.com</a></td>
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<td>Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change</td>
<td>F: +44 (0)20 7294 2404 (BB forms)</td>
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<td>E: <a href="mailto:business@cityandguilds.com">business@cityandguilds.com</a></td>
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<tr>
<td>Logbooks, Centre documents, Forms, Free literature</td>
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If you have a complaint, or any suggestions for improvement about any of the services that we provide, email: feedbackandcomplaints@cityandguilds.com