Level 1 Diploma in Wall and Floor Tiling (6710-13)

September 2017 Version 1.3
## Qualification at a glance

<table>
<thead>
<tr>
<th>Subject area</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>City &amp; Guilds number</td>
<td>6710</td>
</tr>
<tr>
<td>Age group approved</td>
<td>16-18, 19+</td>
</tr>
<tr>
<td>Entry requirements</td>
<td>None</td>
</tr>
<tr>
<td>Assessment</td>
<td>Multiple choice, assignment</td>
</tr>
<tr>
<td>Support materials</td>
<td>Centre handbook, Assessor guidance, Task manual</td>
</tr>
<tr>
<td>Registration and certification</td>
<td>Consult the Walled Garden/Online Catalogue for last dates</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title and level</th>
<th>GLH</th>
<th>TQT</th>
<th>City &amp; Guilds number</th>
<th>Accreditation number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 Diploma in Wall and Floor Tiling</td>
<td>392</td>
<td>400</td>
<td>6710-13</td>
<td>600/8786/9</td>
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</table>

<table>
<thead>
<tr>
<th>Version and date</th>
<th>Change detail</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 July 2014</td>
<td>Centre staffing amended</td>
<td>Centre requirements</td>
</tr>
<tr>
<td>1.2 December 2015</td>
<td>Updated range for LO 1, 3 and 4 in unit 201</td>
<td>Units</td>
</tr>
<tr>
<td>1.3 September 2017</td>
<td>Added GLH and TQT details. Deleted QCF</td>
<td>Qualification at a Glance, Structure Appendix</td>
</tr>
</tbody>
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<td>Support materials</td>
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<td>15</td>
</tr>
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<td>Health, safety and welfare in construction</td>
<td>18</td>
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<td>Unit 101/501</td>
<td>Principles of building construction, information and communication</td>
<td>24</td>
</tr>
<tr>
<td>Unit 126</td>
<td>Preparing tiles for fixing to wall and floor installations</td>
<td>28</td>
</tr>
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<td>Unit 127</td>
<td>Apply and fix tiling materials to wall and floor tiling installations</td>
<td>32</td>
</tr>
<tr>
<td>Unit 128</td>
<td>Set out tiling components</td>
<td>37</td>
</tr>
<tr>
<td>Unit 129</td>
<td>Mix tiling materials</td>
<td>40</td>
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<td>Unit 130</td>
<td>Handle and store tiling materials and accessories</td>
<td>43</td>
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<td>Appendix 1</td>
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<td>47</td>
</tr>
</tbody>
</table>
1 Introduction

This document tells you what you need to do to deliver the qualification:

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is the qualification for?</td>
<td>It is for learners who work or want to work as a tiler in the construction sector.</td>
</tr>
<tr>
<td>What does the qualification cover?</td>
<td>It allows learners to learn, develop and practise the skills required for employment and/or career progression in tiling.</td>
</tr>
<tr>
<td></td>
<td>It covers the following skills:</td>
</tr>
<tr>
<td></td>
<td>• apply and fix tiling materials to wall and floor installations</td>
</tr>
<tr>
<td></td>
<td>• handle and store tiling materials and components</td>
</tr>
<tr>
<td></td>
<td>• mix tiling materials</td>
</tr>
<tr>
<td></td>
<td>• prepare tiles for fixing to wall and floor installations</td>
</tr>
<tr>
<td></td>
<td>• set out tiling components.</td>
</tr>
<tr>
<td>Is the qualification part of a framework or initiative?</td>
<td>No</td>
</tr>
<tr>
<td>What opportunities for progression are there?</td>
<td>it allows learners to progress into employment or to the following City &amp; Guilds qualifications:</td>
</tr>
<tr>
<td></td>
<td>• Level 2 Diploma in Wall &amp; Floor Tiling.</td>
</tr>
</tbody>
</table>
Structure

To achieve the [Level 1 Diploma in Wall and Floor Tiling (6710-13)], learners must achieve **40** credits from the mandatory units in the table below.

<table>
<thead>
<tr>
<th>Unit accreditation no.</th>
<th>City &amp; Guilds unit no.</th>
<th>Unit title</th>
<th>Credit value</th>
<th>Guided Learning Hours (GLH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/504/6722</td>
<td>101/501</td>
<td>Principles of building construction, information and communication</td>
<td>6</td>
<td>52</td>
</tr>
<tr>
<td>A/504/8468</td>
<td>126</td>
<td>Preparing tiles for fixing to wall and floor installations</td>
<td>9</td>
<td>90</td>
</tr>
<tr>
<td>T/504/8467</td>
<td>127</td>
<td>Apply and fix tiling materials to wall and floor tiling installations</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>H/504/8464</td>
<td>128</td>
<td>Set out tiling components</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>K/504/8465</td>
<td>129</td>
<td>Mix tiling materials</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>M/504/8466</td>
<td>130</td>
<td>Handle and store tiling materials and accessories</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>A/504/6719</td>
<td>201/601</td>
<td>Health, safety and welfare in construction</td>
<td>7</td>
<td>70</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 1 Diploma in Wall and Floor Tiling</td>
<td>392</td>
<td>400</td>
</tr>
</tbody>
</table>
2 Centre requirements

Approval
The approval process for Construction qualifications is available at our website. Please visit www.cityandguilds.com/construction for further information.

Resource requirements
Centres will have well equipped workshops with a comprehensive range of hand and portable power tools that meet current industry standards. All powered equipment should be well maintained and PAT certified. Facilities for grinding and sharpening hand tools will be available. Centres will have special designated areas within Construction operations workshops (cubicles or project areas) allowing candidates to practice the requirements of the units and carry out the Practical Assignments.

Centre staffing
All staff who assess (tutor/deliver) these qualifications must:
• have recent relevant experience in the specific area they will be teaching;
• be technically competent in the area for which they are delivering training and/or have experience of providing training;
• have a CV available demonstrating relevant experience and any qualifications held.

All staff who quality assure these qualifications must:
• have a good working knowledge and experience within the construction industry;
• have an established strategy and documentary audit trail of internal quality assurance;
• have a good working knowledge of quality assurance procedures;
• have a CV available demonstrating relevant experience and any qualifications held.

While the Assessor/Verifier (A/V) units/TAQA are valued as qualifications for centre staff, they are not currently a requirement for these qualifications. However, we encourage trainers and assessors to qualify to the current TAQA standard.

Continuing professional development (CPD)
Centres must support their staff to ensure that they have current knowledge of the occupational area, that delivery, mentoring, training, assessment and verification is in line with best practice, and that it takes account of any national or legislative developments.

Learner entry requirements
City & Guilds does not set entry requirements for this qualification. However, centres must ensure that learners have the potential and opportunity to gain the qualification successfully.
Age restrictions
City & Guilds cannot accept any registrations for learners under 16 as this qualification is not approved for under 16s.
3 Delivering the qualification

Initial assessment and induction
An initial assessment of each learner should be made before the start of their programme to identify:

- if the learner has any specific training needs,
- support and guidance they may need when working towards their qualification
- any units they have already completed, or credit they have accumulated which is relevant to the qualification
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the learner fully understands the requirements of the qualification, their responsibilities as a learner, and the responsibilities of the centre. This information can be recorded on a learning contract.

Support materials
The following resources are available for this qualification:

<table>
<thead>
<tr>
<th>Description</th>
<th>How to access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessor guidance</td>
<td><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></td>
</tr>
<tr>
<td>Task manual</td>
<td><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></td>
</tr>
<tr>
<td>Qualification approval form</td>
<td><a href="http://www.cityandguilds.com/construction">www.cityandguilds.com/construction</a></td>
</tr>
<tr>
<td>SmartScreen</td>
<td><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></td>
</tr>
</tbody>
</table>
## Assessment

<table>
<thead>
<tr>
<th>Unit</th>
<th>Title</th>
<th>Assessment method</th>
<th>Where to obtain assessment materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>101/501</td>
<td>Principles of building construction, information and communication</td>
<td>City &amp; Guilds e-volve multiple choice test or on demand externally marked paper.</td>
<td>Examinations provided on e-volve, or question papers ordered via Walled Garden.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The test covers all of the knowledge in the unit.</td>
<td></td>
</tr>
<tr>
<td>201/601</td>
<td>Health, safety and welfare in construction</td>
<td>City &amp; Guilds e-volve multiple choice test or on demand externally marked paper.</td>
<td>Examinations provided on e-volve, or question papers ordered via Walled Garden.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The test covers all of the knowledge in the unit.</td>
<td></td>
</tr>
<tr>
<td>126</td>
<td>Preparing tiles for fixing to wall and floor installations</td>
<td>Multiple choice question paper, covering knowledge outcomes.</td>
<td><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical assignment, covering performance outcomes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Both assessments are set by City &amp; Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City &amp; Guilds to make sure they are properly carried out</td>
<td></td>
</tr>
<tr>
<td>127</td>
<td>Apply and fix tiling materials to wall and floor tiling installations</td>
<td>Multiple choice question paper, covering knowledge outcomes.</td>
<td><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical assignment, covering performance outcomes.</td>
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</table>

City & Guilds Level 1 Diploma in Wall and Floor Tiling (6710-13)
<table>
<thead>
<tr>
<th>Unit</th>
<th>Title</th>
<th>Assessment method</th>
<th>Where to obtain assessment materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>128</td>
<td>Set out tiling components</td>
<td>Multiple choice question paper, covering knowledge outcomes.</td>
<td><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical assignment, covering performance outcomes.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>129</td>
<td>Mix tiling materials</td>
<td>Multiple choice question paper, covering knowledge outcomes.</td>
<td><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical assignment, covering performance outcomes.</td>
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<td></td>
<td></td>
<td>Both assessments are set by City &amp; Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City &amp; Guilds to make sure they are properly carried out</td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>Handle and store tiling materials and accessories</td>
<td>Multiple choice question paper, covering knowledge outcomes.</td>
<td><a href="http://www.cityandguilds.com">www.cityandguilds.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practical assignment, covering performance outcomes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Both assessments are set by City &amp; Guilds, delivered and marked by the tutor/assessor, and will be externally verified by City &amp; Guilds to make sure they are properly carried out</td>
<td></td>
</tr>
</tbody>
</table>
Test specifications

The way the knowledge is covered by each test is laid out in the tables below:

**Test 1:** Unit 101/501 Principles of building construction, information and communication

**Duration:** 1 hour

<table>
<thead>
<tr>
<th>Unit</th>
<th>Outcome</th>
<th>No. of questions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>101/501</td>
<td>1. Know how to identify information used in the workplace</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>2. Know about environmental consideration in relation to construction</td>
<td>2</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>3. Know about construction of foundations</td>
<td>4</td>
<td>11.5</td>
</tr>
<tr>
<td></td>
<td>4. Know about construction of internal and external walls</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>5. Know about construction of floors</td>
<td>4</td>
<td>11.5</td>
</tr>
<tr>
<td></td>
<td>6. Know about construction of roofs</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>7. Know how to communicate in the workplace</td>
<td>4</td>
<td>11.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>35</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
### Test 2: Unit 201/601 Health, safety and welfare in construction

**Duration:** 1 hour

<table>
<thead>
<tr>
<th>Unit</th>
<th>Outcome</th>
<th>No. of questions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>201/601</td>
<td>1. Know the health and safety regulations, roles and responsibilities</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td></td>
<td>2. Know accident and emergency reporting procedures and documentation</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>3. Know how to identify hazards in the workplace</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td></td>
<td>4. Know about health and welfare in the workplace</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>5. Know about how to handle materials and equipment safely</td>
<td>2</td>
<td>.5</td>
</tr>
<tr>
<td></td>
<td>6. Know about access equipment and working at heights</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>7. Know how to work with electrical equipment in the workplace</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>8. Know how to use personal protective equipment (PPE)</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>9. Know the cause of fire and fire emergency procedures</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### Test 3: Unit 126 Preparing tiles for fixing to wall and floor installations

**Duration:** 40 minutes

<table>
<thead>
<tr>
<th>Unit</th>
<th>Outcome</th>
<th>No. of questions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>126</td>
<td>1. Know how to prepare tiles and accessories for fixing</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>3. Know how to prepare and cut tiles prior to fixing</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
### Test 4:
**Unit 127 Apply and fix tiling materials to wall and floor tiling installations**

**Duration:** 40 minutes

<table>
<thead>
<tr>
<th>Unit</th>
<th>Outcome</th>
<th>No. of questions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>127</td>
<td>1. Know how to fix tiles and accessories</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>2. Know how to apply materials to backgrounds to receive tiling</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>4. Know how to fix tiles to background surfaces</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>6. Know how to apply finishing materials to background surfaces</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### Test 5:
**Unit 128 Set out tiling components**

**Duration:** 30 minutes

<table>
<thead>
<tr>
<th>Unit</th>
<th>Outcome</th>
<th>No. of questions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>128</td>
<td>1. Know how to prepare to receive and apply tiling materials</td>
<td>10</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>3. Know how to set out tiling materials</td>
<td>5</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### Test 6:
**Unit 129 Mix tiling materials**

**Duration:** 30 minutes

<table>
<thead>
<tr>
<th>Unit</th>
<th>Outcome</th>
<th>No. of questions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>129</td>
<td>1. Know how to prepare and mix materials</td>
<td>8</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>3. Know how to gauge and mix materials</td>
<td>7</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
### Test 7:  
**Unit 130 Handle and store tiling materials and accessories**  
**Duration:** 30 minutes

<table>
<thead>
<tr>
<th>Unit</th>
<th>Outcome</th>
<th>No. of questions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>130</td>
<td>1. Know how to handle and store tiling materials and accessories</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>3. Know how to handle tiling materials and accessories manually</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>5. Know how to store tiling materials and accessories</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>7. Know how to check and record incoming materials</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
5 Units

Structure of units
These units each have the following:
- City & Guilds reference number
- Unit Accreditation Number (UAN)
- title
- level
- credit value
- Guided Learning Hours (GLH)
- unit aim
- learning outcomes which are comprised of a number of assessment criteria

Range explained:
Range gives further scope on what areas within an assessment criteria must be covered. The range in a unit must be taught to learners and parts of the range will be assessed.

Glossary of terms used in the units

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abutment</td>
<td>To fit against – eg floor tiles fitting to a base</td>
</tr>
<tr>
<td>Additive</td>
<td>Plasticisers, primers, bonding agent sealers</td>
</tr>
<tr>
<td>Alignment</td>
<td>Checking for straight, flat or lining up a number of components, structures or surfaces</td>
</tr>
<tr>
<td>Applied backgrounds</td>
<td>Fabricated structures covered with cladding material, eg timber or metal studding clad with sheet material, plasterboard, plywood, composite board</td>
</tr>
<tr>
<td>Abrading</td>
<td>Rubbing down, smoothing off background surfaces, trimming tile edges using carborundum stones, files or disc cutters</td>
</tr>
<tr>
<td>Bedding</td>
<td>Application of tile adhesive or mortar to support tiles, forming a bond between background surfaces and tiles</td>
</tr>
<tr>
<td>Bonding</td>
<td>Adhesion between background surfaces and applies surfaces finishes</td>
</tr>
<tr>
<td>Biscuit</td>
<td>The material of which the basic body of a tile is formed – determines the height, hardness and thickness</td>
</tr>
<tr>
<td>Centering</td>
<td>Mid-point measurements from extreme ends-horizontal wall to wall and vertically floor to ceiling height</td>
</tr>
<tr>
<td>Cill</td>
<td>Base of window opening</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
</tr>
<tr>
<td>Datum</td>
<td>Common mark or level established in an accessible area for general use during level and measuring activities</td>
</tr>
<tr>
<td>DPC</td>
<td>Damp Proof Course-biteum-based, lead, PVC</td>
</tr>
<tr>
<td>De-greasing</td>
<td>Cleaning background surfaces or tiles with detergents and water/chemical application</td>
</tr>
<tr>
<td>Dust pressed</td>
<td>Refers to tile production methods used whereby the material used for the tile body (biscuit) is finely ground</td>
</tr>
<tr>
<td>Epoxide</td>
<td>Special adhesives and grouts two/three pack comprising powder and the resin accelerator</td>
</tr>
<tr>
<td>Fixing rule</td>
<td>Piece of timber batten fixed to backgrounds for the start of wall tile application usually for second tiling course from floor level</td>
</tr>
<tr>
<td>Gauging</td>
<td>Measuring the exact quantities of materials prior to mixing</td>
</tr>
<tr>
<td>Gauge rod/staff</td>
<td>Piece of timber lath marked with tile sizes used in setting out and centring prior to application. Used for horizontally and vertically to assess cut tiles sizes and internal and external angles, cills, soffits</td>
</tr>
<tr>
<td>Grid system</td>
<td>Accurate measurements of equals sizes set up in squared form (e.g. 1 metre squares) marked accurately on wall or floor areas to establish tile designs and patterns from detailed scale drawings</td>
</tr>
<tr>
<td>Glaze</td>
<td>High gloss surface finish to tiles</td>
</tr>
<tr>
<td>Grouting tiles</td>
<td>Filling the joints between tiles</td>
</tr>
<tr>
<td>Hygrometer</td>
<td>Measures the relative humidity and air temperature. This determines if the conditions are acceptable for tile application</td>
</tr>
<tr>
<td>Jambs</td>
<td>Sides of doorway openings</td>
</tr>
<tr>
<td>Levelling</td>
<td>Using a spirit level to check and mark levels</td>
</tr>
<tr>
<td>Laying</td>
<td>Application of floor tiles</td>
</tr>
<tr>
<td>Manual handling</td>
<td>Lifting and moving materials by human effort. (kinetic lifting) safely</td>
</tr>
<tr>
<td>Mechanical Key</td>
<td>Forming a strong bond between background surfaces and tiles to be applied. Also applies to plaster or render application. The key is formed by racking out mortar joints, indenting surfaces and applying slurry</td>
</tr>
<tr>
<td>Mitres</td>
<td>Edge cut at 45° to form angle when two are bought together</td>
</tr>
<tr>
<td>Personal Protective Equipment (PPE)</td>
<td>For example, safety helmet, industrial boots, goggles, ear protectors, respirator/masks</td>
</tr>
<tr>
<td>Proportioning</td>
<td>Measuring materials prior to fixing into the current specified ratio eg 6:1 sand/cement – six buckets to one bucket</td>
</tr>
<tr>
<td>Plumbing</td>
<td>Establishing a vertical line accurately by using a plumb line and bob or spirit – level and straight level</td>
</tr>
<tr>
<td>----------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Plumb bob</td>
<td>Heavy weight used with a lime to establish vertical lines accurately. Made usually in brass/lead</td>
</tr>
<tr>
<td>Promiter/damp meter</td>
<td>Determines the amount of moisture present in wall or floor surfaces. Indicates if the surface is suitable or not for tiling</td>
</tr>
<tr>
<td>Reveals</td>
<td>Sides to window openings or service access</td>
</tr>
<tr>
<td>Sealants</td>
<td>Used for sealing joints when movement occurs - materials are usually acrylic silicon</td>
</tr>
<tr>
<td>SBR</td>
<td>Styrene Butadiene Rubber (bonding agent)</td>
</tr>
</tbody>
</table>
Unit 201/601  Health, safety and welfare in construction

<table>
<thead>
<tr>
<th>UAN:</th>
<th>A/504/6719</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level:</td>
<td>2</td>
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<tr>
<td>Credit value:</td>
<td>7</td>
</tr>
<tr>
<td>GLH:</td>
<td>70</td>
</tr>
<tr>
<td>Endorsement by a sector or regulatory body:</td>
<td>This unit is endorsed by Construction Skills, the Sector Skills Council for the construction industry.</td>
</tr>
<tr>
<td>Aim:</td>
<td>The aim of this unit is to provide the learner with the knowledge to carry out safe working practices in construction, in relation to sourcing relevant safety information and using the relevant safety procedures at work</td>
</tr>
</tbody>
</table>

### Learning outcome

The learner will:

1. know the health and safety regulations, roles and responsibilities

### Assessment criteria

The learner can:

1.1 identify **health and safety legislation** relevant to and used in the construction environment

1.2 state **employer and employee responsibilities** under the Health and Safety at Work Act (HASWA)

1.3 state **roles and responsibilities** of the Health and Safety Executive (HSE)

1.4 identify **organisations** providing relevant health and safety information

1.5 state the importance of holding on-site safety inductions and toolbox talks.

### Range

**Health and safety legislation**

Health and Safety at Work Act, Reporting Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), Control of Substances Hazardous to Health (COSHH), Construction, Design and Management (CDM) regulations, Provision and Use of Work Equipment Regulations (PUWER), manual handling operations Regulations, Personal Protective Equipment (PPE) at Work Regulations, Work at Height Regulations, Control of Noise at Work Regulations, Control of Vibration at Work Regulations, Electricity at Work Regulations, Lifting operations and Lifting Equipment Regulations (LOLER)
**Employer responsibilities**
Safe working environment, adequate staff training, health and safety information, site inductions, toolbox talks, risk assessment, supervision, PPE, reporting hazards, accidents and near misses, sections 2 to 9 of Health and Safety at Work Act, CDM reg’s, construction phase plans, welfare, display public liability Insurance and health and safety law poster.

**Employee responsibilities**
Working safely, working in partnership with the employer, reporting hazards, accidents and near misses, following organisational procedures as per Sections 2 to 9 of Health and Safety at Work Act.

**Roles and responsibilities:**
Enforcement (including fees for intervention), legislation and advice, inspection, investigation eg site investigations.

**Organisations**
Health and Safety Executive (HSE) website, Institute of Occupational Safety and Health, British Safety Council, ‘manufacturer’, ROSPA.

**Learning outcome**
The learner will:
2. know accident and emergency reporting procedures and documentation

**Assessment criteria**
The learner can:
2.1 state legislation used for reporting accidents
2.2 state major *types of emergencies* that could occur in the workplace
2.3 identify reportable injuries, diseases and dangerous occurrences as per RIDDOR
2.4 state main types of *records* used in the event of an accident, emergency and near miss and reasons for reporting them
2.5 identify *authorised personnel* involved in dealing with accident and emergency situations
2.6 state *actions* to take when discovering an accident.

**Range**

**Types of emergencies**
Fires, security incidents, gas leaks.

**Records:**
Accident book, first aid records, organisational records and documentation.

**Authorised personnel**
First aiders, supervisors/managers, health and safety executive, emergency services, safety officer.
**Actions**
Area made safe, call for help, emergency services.

**Learning outcome**
The learner will:
3. know how to identify hazards in the workplace

**Assessment criteria**
The learner can:
3.1 state the importance of **good housekeeping**
3.2 state reasons for risk assessments and method statements
3.3 identify **types of hazards** in the workplace
3.4 state the importance of the correct storage of combustibles and chemicals on site
3.5 identify different **signs and safety notices** used in the workplace.

**Range**
**Good housekeeping:**
Cleanliness, tidiness, use of skips and chutes, segregation of materials, clear access to fire escapes, clear access to fire extinguishers.

**Types of hazards:**
Fires, slips, trips and falls, hazardous substances (relating to inhalation, absorption, exposure, ingestion, cross-contamination), electrical, asbestos, manual handling, plant and vehicle movement, adverse weather.

**Signs and safety notices:**
Prohibition, mandatory, warning, safe condition, supplementary.

**Learning outcome**
The learner will:
4. know about health and welfare in the workplace

**Assessment criteria**
The learner can:
4.1 identify requirements for welfare facilities in the workplace as per Construction Design Management (CDM)
4.2 state health effects of noise and **precautions** that can be taken
4.3 state **risks** associated with drugs, alcohol and medication which could affect performance in the workplace.

**Range**
**Precautions**
Reducing noise at source, PPE, isolation, exposure time.

**Risks**
Reduced risk perception, loss of concentration, balance problems, absenteeism and reduced productivity.
### Learning outcome
The learner will:

5. know how to handle materials and equipment safely

### Assessment criteria
The learner can:

5.1 identify legislation relating to safe handling of materials and equipment
5.2 state procedures for safe lifting and manual handling activities in accordance with guidance and legislation
5.3 state the importance of using **lifting aids** when handling materials and equipment.

### Range
**Lifting aids**
Wheelbarrow, sack barrow, mechanical lifting aids, pallet truck.

### Learning outcome
The learner will:

6. know about access equipment and working at heights

### Assessment criteria
The learner can:

6.1 identify legislation relating to working at heights
6.2 identify types of **access equipment**
6.3 state **safe methods** of use for **access equipment**
6.4 identify **dangers** of working at height.

### Range
**Access equipment:**
Stepladders, ladders (pole, extension), trestles, hop-ups, proprietary scaffolding, podium, stilts

**Safe methods**
Regular inspection, check for broken, damaged or missing components, responsible use, consideration of adverse weather conditions, good housekeeping

**Dangers**
Falling tools, falling equipment, falling materials, persons falling from height (injuries to themselves and others).
### Learning outcome

The learner will:

7. know how to work with electrical equipment in the workplace

### Assessment criteria

The learner can:

7.1 state **precautions** to take to avoid risks to self and others when working with electrical equipment

7.2 state **dangers** of using electrical equipment

7.3 identify **voltages** and voltage colour coding that are used in the workplace

7.4 state **methods** of storing electrical equipment.

### Range

**Precautions**

Check leads, check plugs, use of cable hangers, check tools and equipment, current valid PAT certificate

**Dangers:**

Burns, electrocution, fire.

**Voltages**

Battery powered, 110/115 volts, 230/240 volts and 415 volts.

**Methods**

Components present, equipment cleaned, checked for damage, stored in a clean and secure location.

---

### Learning outcome

The learner will:

8. know how to use Personal Protective Equipment (PPE)

### Assessment criteria

The learner can:

8.1 state the legislation governing use of Personal Protective Equipment (PPE)

8.2 state **types of PPE** used in the workplace

8.3 state the importance of PPE

8.4 state why it is important to store, maintain and use PPE correctly

8.5 state the importance of checking and reporting damaged PPE.

### Range

**PPE:**

Head protection, eye protection, ear protection, face/dust masks, breathing apparatus, high visibility clothing, safety footwear, gloves, sun protection, barrier cream, water proofs, knee pads, overalls/disposable clothing
### Learning outcome

The learner will:

9. know the cause of fire and fire emergency procedures

### Assessment criteria

The learner can:

9.1 state **elements** essential to creating a fire
9.2 identify methods of fire prevention
9.3 state actions to be taken on discovering a fire
9.4 state **types of fire extinguishers** and their uses.

### Range

**Elements**

Oxygen, fuel, heat.

**Types of fire extinguishers:**

Water, foam, CO2, dry powder.
**Unit 101/501**  
**Principles of building construction, information and communication**

<table>
<thead>
<tr>
<th>UAN:</th>
<th>A/504/6722</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level:</td>
<td>1</td>
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<tr>
<td>Credit value:</td>
<td>6</td>
</tr>
<tr>
<td>GLH:</td>
<td>52</td>
</tr>
<tr>
<td>Endorsement by a sector or regulatory body:</td>
<td>This unit is endorsed by ConstructionSkills.</td>
</tr>
</tbody>
</table>

**Aim:**
The aim of this unit is to provide the learner with the knowledge of building methods and construction technology in relation to:
- understanding a range of building materials used within the construction industry and their suitability to the construction of modern buildings
- processes for disseminating information
- basic concepts of effective communication.

**Learning outcome**
The learner will:
1. know how to identify information used in the workplace

**Assessment criteria**
The learner can:
1.1 identify **information sources** used in construction
1.2 identify the scale to use with **drawings** in relation to BS1192
1.3 identify **symbols** and **hatchings** from drawings in relation to BS1192
1.4 state the purpose of datums used in construction.

**Range**

**Information sources**
Drawings, schedule, specifications, programme of work.

**Drawings**
Block plan, site plan, detail, section.

**Symbols**
WC, sink, bath, door, window.

**Hatchings**
Brickwork, timber (wrot and unwrot), blockwork, concrete, hardcore, sub soil/earth, insulation, damp proof course (DPC), damp proof membrane
Learning outcome
The learner will:
2. know about environmental considerations in relation to construction

Assessment criteria
The learner can:
2.1 state features of a building that improve efficiency
2.2 state the importance of waste management.

Range
Features
Design features that reduce consumption of water and energy: insulation and water harvesting/conservation.

Waste management
Reduce, reuse, recycle.

Learning outcome
The learner will:
3. know about construction of foundations.

Assessment criteria
The learner can:
3.1 identify types of foundations
3.2 identify materials used in concrete foundations
3.3 state the information required to work out the quantity of materials used in a foundation
3.4 calculate volume of concrete used in single strip foundation.

Range
Types of foundations
Strip, raft, pile, pad.

Materials
Course aggregate, fine aggregate, cement, water, steel reinforcement.

Information
Specification, dimensions.
### Learning outcome

The learner will:

4. know about construction of internal and external walls.

### Assessment criteria

The learner can:

4.1 identify **types** of internal and external walls
4.2 identify **external walling materials and components**
4.3 identify **internal walling materials and components**
4.4 calculate the area of a wall
4.5 identify **materials** and mix ratios used in mortar
4.6 identify **wall finishes**
4.7 state **paint systems** for new plaster.

### Range

**Types**
Solid, cavity, timber frame, stud.

**External walling materials and components**
Brick, block, timber, insulation, Damp proof course (DPC), wall ties.

**Internal walling materials and components**
Stud (timber, metal), low density blockwork, plasterboard, plaster.

**Materials**
Sand, lime, plasticiser, cement.

**Wall finishes**
Plaster, render.

**Paint systems**
Mist -coat/seal, two coats of emulsion.

### Learning outcome

The learner will:

5. know about construction of floors.

### Assessment criteria

The learner can:

5.1 identify **types of floors**
5.2 identify **components of solid concrete ground floors**
5.3 identify **components of timber floors**.

### Range

**Types of floors**
Solid concrete ground, timber (ground, upper).

**Components of solid concrete ground floors**
Hardcore, blinding sand, damp proof membrane (DPM), insulation, oversite concrete, screed.

**Components of timber**
Oversite concrete, sleeper walls, wall plates, DPC, joists, insulation, floor covering.
### Learning outcome
The learner will:
6. know about construction of roofs.

### Assessment criteria
The learner can:
6.1 identify **types of roofs**
6.2 identify **components of roofs**
6.3 state **paint systems for timber**
6.4 calculate the linear quantity of fascia board
6.5 state the importance of thermal insulation in a roof.

#### Range
**Types of roofs**
Gable-ended, flat, hipped, lean-to.

**Roof components**
Ridge, batten/lathe, fascia, wall plate, felt, slate/tile, truss rafters, insulation, joists, wall plate straps.

**Paint systems for timber**
Knotting, prime, undercoat, gloss, (water-based and solvent-based).

### Learning outcome
The learner will:
7. know how to communicate in the workplace

### Assessment criteria
The learner can:
7.1 list **job roles** within construction
7.2 state **information** needed when recording a message
7.3 list **benefits** of clear and effective communication
7.4 list **benefits** of positive communication with colleagues and others
7.5 identify **communication methods** used to relay information to colleagues.

#### Range
**Job roles**
Professional, technician, trade, general operative.

**Information**
Date, time, content, contact name and details.

**Benefits (AC 7.3)**
Preventing errors, safe working, improved productivity.

**Benefits (AC 7.4)**
Improved motivation, avoid conflict, complying with equality and diversity.

**Communication methods**
Verbal, memos, telephone, email, radio, text messages.
Unit 126  Preparing tiles for fixing to wall and floor installations

<table>
<thead>
<tr>
<th>UAN:</th>
<th>A/504/8468</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level:</td>
<td>1</td>
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<tr>
<td>Credit value:</td>
<td>9</td>
</tr>
<tr>
<td>GLH:</td>
<td>90</td>
</tr>
<tr>
<td>Aim:</td>
<td>The aim of this unit is to provide the learner with the skills and knowledge required to prepare tiles for fixing to a variety of wall and floor installations.</td>
</tr>
</tbody>
</table>

**Learning outcome**
The learner will:
8. know how to prepare tiles and accessories for fixing.

**Assessment criteria**
The learner can:
8.1 state potential hazards associated with preparing tiles and accessories for fixing
8.2 state types of information sources relating to preparing tiles
8.3 list types of tiling and accessories
8.4 state personal protective equipment required for preparing tiles and accessories
8.5 list tools and equipment required for preparing tiles and accessories
8.6 state cleaning and maintenance requirements for tools and equipment
8.7 state methods of protecting work and surrounding areas from damage in accordance with instructions.

**Range**

**Hazards**
Dust, debris, slips, trips and falls, irritants, eye damage, electricity, spillages, abrasive wheels

**Information sources**
Manufacturer's technical information, specific instructions, basic drawings and specifications, batch identification numbers

**Tiling and accessories**
Tiling: wall and floor accessories: trims (edge, angle & sealing), movement/expansion joints

**Personal protective equipment (PPE)**
Hard hat, dust masks/respirators, eye protection, ear protection, high visibility vests, gloves, knee pads, safety footwear, appropriate clothing - nothing loose fitting, jewellery, overalls/protective clothing.
Tools and equipment
Tools: hand operated tile cutter, light & heavy duty tile cutters, hammers,
tilting trowels (serrating trowel, gauging, /bucket trowel) tile
nippers/nibblers/ mosaic cutters. Electric cutting equipment, scribers,
mitre block, spirit level, chisels, files, trimming tools , hacksaws, dividers.
NB: use of retractable knives for unpacking tiles.
Equipment: tapes, rules, straight edges, squares, compasses, tile cutters
sponges, polishing cloths, buckets.

Methods
Sheet materials, taping to secure, dust sheets/protective coverings.

Learning outcome
The learner will:
9. be able to prepare tiles and accessories for fixing.

Assessment criteria
The learner can:
9.1 follow a risk assessment for preparing tiling and accessories for
fixing
9.2 interpret instructions for preparation of tiling and accessories for
fixing
9.3 complete materials list of materials and accessories in
accordance with instructions
9.4 select personal protective equipment for preparing tiles and
accessories for fixing
9.5 select hand and power tools to prepare tiles and accessories for
fixing.

Range
Risk assessment
Control methods, method of work, manufacturer's technical information,
statutory regulations and official guidance.

Instructions
Manufacturer’s specific instructions, batch identification numbers, BS
EN 14411 Standards for classification of ceramic tiles and BS EN 12057
for classification of natural stone.

Materials list
Type, size, quantity, location, check for irregularities.
Materials: tiles, adhesives, grout, sealant, tile trims, spacer pegs,
protective sheet materials.

Personal protective equipment (PPE)
Hard hat, dust mask / respirators, eye protection, ear protection
high visibility vests, . gloves, barrier cream, knee pads, safety footwear,
appropriate clothing - nothing loose fitting, jewellery, overalls/protective
clothing.

Hand and power tools
Hand tools: hand operated tile cutter, light and heavy duty tile cutters,
lock boy and hammer, hammers, punches, scribes, tiling and standard
pincers, chisels, files, trowels, screwdrivers, trimming tools, mitre block,
hacksaws, brushes, shovels.
NB: use of retractable knives for unpacking tiles.
Equipment: chalk line, serrators, squeegee/grout float, gauging trowel, levels, battens, pencils, plumb line, carborundum stone, sponges, buckets, tapes, rules, straight edges, squares, calculator, dust sheets
Power tools: disc cutters, grinders, wet saw, mixing paddle and drill.

<table>
<thead>
<tr>
<th>Learning outcome</th>
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</thead>
<tbody>
<tr>
<td>The learner will:</td>
</tr>
<tr>
<td>10. know how to prepare and cut tiles and accessories prior to fixing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learner can:</td>
</tr>
<tr>
<td>10.1 state methods used for estimating the required amount of tiles and accessories for fixing tiles</td>
</tr>
<tr>
<td>10.2 state methods used to cut tiles and accessories for fixing</td>
</tr>
<tr>
<td>10.3 state problems that could occur due to under and over estimating of resources for fixing</td>
</tr>
<tr>
<td>10.4 state importance of maintaining a clear working area</td>
</tr>
<tr>
<td>10.5 follow current environmental and health and safety regulations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Methods (AC3.1)</strong></td>
</tr>
<tr>
<td>Basic calculations and dimensions: addition, subtraction, height, length, breadth, area, quantities, percentage wastage, measuring and marking out using centring method, size of tiles and trims, 3:4:5 method.</td>
</tr>
<tr>
<td><strong>Methods (AC3.2)</strong></td>
</tr>
<tr>
<td>Different hand tools back edging, marking and cutting tiles to fit around different shapes mitre angles to external corners, wet cutting (electric cutters).</td>
</tr>
<tr>
<td>Different types of tiles: wall and floor.</td>
</tr>
<tr>
<td>Accessories: trims (edge, angle and sealing).</td>
</tr>
<tr>
<td><strong>Problems</strong></td>
</tr>
<tr>
<td>Under estimating: delays in completing the job, cost, time, potential problems associated with sourcing different batches of tiles</td>
</tr>
<tr>
<td>Over estimating: surplus materials may not be able to be re used, cost implications.</td>
</tr>
<tr>
<td><strong>Importance</strong></td>
</tr>
<tr>
<td>Aiding efficient and productive working, safety – self and others, cost implications.</td>
</tr>
<tr>
<td><strong>Environmental and health and safety regulations</strong></td>
</tr>
<tr>
<td>Product data sheet, manufacturers’ technical information, HSE, risk assessments, COSHH.</td>
</tr>
</tbody>
</table>
Learning outcome
The learner will:
11. be able to cut tiles and accessories prior to fixing.

Assessment criteria
The learner can:
11.1 follow a risk assessment for tasks
11.2 **calculate** required number of tiles and accessories from instructions
11.3 **protect** work and surrounding areas from damage in accordance with organisational requirements
11.4 **cut** and **prepare** required quantity of tiles and accessories for a task in accordance with instructions
11.5 follow current **environmental and health and safety regulations.**

Range

**Calculate**
Area and amount of tiles per metre square using a range of tiles.

**Protect**
Task specific to environment, against damage from general workplace activities, other occupations and environmental conditions.

**Cut**
Marking and cutting wall and floor tiles to shape and size, cuts, to be: straight, angled, radius, slots. Through a combination of manual and wet cutting, mitring to internal and external corners.

**Prepare**
Wall and floor tiles: trims, using relevant hand/manual tools and power tools, using appropriate PPE.

**Environmental and health and safety regulations**
Disposing and recycle use of materials and waste in designated storage areas, containers/ skips, ensuring work area is left tidy on completion of work.
Unit 127  Apply and fix tiling materials to wall and floor tiling installations

UAN: T/504/8467
Level: 1
Credit value: 10
GLH: 100

Aim: The aim of this unit is to provide the learner with the skills and knowledge required to apply and fix tiling materials to a variety of wall and floor installations.

Learning outcome
The learner will:
1. know how to prepare tiles and accessories for fixing.

Assessment criteria
The learner can:
1.1 state potential hazards associated with fixing tiles to background surfaces
1.2 state types of information sources relating to fixing of tiles
1.3 identify suitability of backgrounds before application of materials
1.4 state materials used for fixing tiles to backgrounds before application
1.5 state personal protective equipment required for fixing tiles and accessories
1.6 list tools and equipment required for fixing tiles to background surfaces
1.7 state cleaning and maintenance requirements for tools and equipment
1.8 state methods of protecting work and surrounding areas from damage in accordance with instructions.

Range
Hazards
Dust, debris, slips, trips and falls, irritants, eye damage, electricity, spillages, abrasive wheels.

Information sources
Manufacturer's technical information and specific instructions, basic drawings and specifications, batch identification numbers, relevant British Standards (classifications of ceramic tiles, classification of natural stone).
Backgrounds
New and existing areas -importance of compatibility between background and materials cleanliness, dryness, flatness, true and square, plumb level and soundness in accordance relevant British Standards, a: gypsum based b: cementitious eg backer board.

Materials
Admixes, primers, bonding agents, levelling/ smoothing compounds, tile adhesive, tiles, grout, sealant.

Personal protective equipment (PPE)
Hard hat, dust mask inrespirators, eye protection, ear protection high visibility vests, gloves, barrier cream, kneel pads, safety footwear, , appropriate clothing - nothing loose fitting, jewellery, overalls/ protective clothing.

Tools and equipment:
Tools: hand operated tile cutter, light and heavy duty tile cutters, hammers, tilting trowels (serrating trowel, gauging/bucket trowel) tile nippers/nibblers/mosaic cutters, sealant gun, lock boy and hammer, hammers, carborundum stone, mixing paddle and drill, rubberallet, electric cutting equipment, scribers, mitre block, spirit level, chisels, files, trimming tools , hacksaws, screwdrivers, dividers.
NB: use of retractable knives for unpacking tiles.
Equipment: manual hand cutter, tapes, rules, chalk line, straight edges, squares, compasses, tile cutters, sponges, squeegees, grout float, wash boy and sponge float, scrapers, roller and tray, brushes, battens, nails/screws, timber, polishing cloths, buckets, cloths, tapes, rules, straight edges, squares, radius cutters, dividers, calculator, moving and handling aids, protective sheets.

Methods
Sheet materials, taping to secure, dust sheets/protective coverings.

Learning outcome
The learner will:
2. know how to apply materials to backgrounds to receive tiling.

Assessment criteria
The learner can:
2.1 state methods used for applying materials to background surfaces
2.2 interpret instructions for fixing tiles to background surfaces
2.3 state the importance of maintaining a clear working area.

Range
Methods
Serrating technique, applying primers by brush, roller, spray or trowel tanking

Instructions
Manufacturer's specific information, organisational information, relevant British Standards for classification of bonding agents and primers, for cement-bonded particle boards.
### Importance
Aiding efficient and productive working, safety - self and others, cost implications.

### Learning outcome
The learner will:
3. be able to apply materials to receive tiling.

### Assessment criteria
The learner can:
3.1 apply **materials to backgrounds** from given instructions
3.2 **protect** work and surrounding areas from damage in accordance with organisational requirements
3.3 follow current **environmental and health and safety regulations**.

### Range
#### Materials to backgrounds
Check backgrounds, new and existing to receive ceramic tiles.

#### Protect
Protect work areas from general work place activities, occupations and environmental conditions ie damp, water, sun.

#### Environmental and health and safety regulations
Disposing and recycle of materials and waste in designated storage areas, containers/ skips ensuring the work area is left tidy on completion of work.

### Learning outcome
The learner will:
4. know how to fix tiles to background surfaces.

### Assessment criteria
The learner can:
4.1 state **methods** for positioning and fixing tiles and accessories.

### Range
#### Methods
Gauging/pinch /staff rods – making and using gauging rod(s) for the purpose of ‘setting out’, battens, use of spirit levels /straight edges, water and laser levels working from string and chalk lines, bedding/fixing to background surface.
### Learning outcome

The learner will:

5. be able to fix tiles to background surfaces.

### Assessment criteria

The learner can:

5.1 position and fix tiles and accessories in accordance with instructions

5.2 follow current environmental and health and safety regulations.

### Range

**Position and fix tiles and accessories**

Fixing battens to wall, use of spirit level and straight edge, positioning and fixing of different types and sizes of tiles to prepared backgrounds, backgrounds and minimum areas: including internal and external corners.

Materials: various tiles.

Tools and equipment.

Adhesives: pre mixed, powdered mix.

Accessories: trims (edge, angle and sealing) movement joints, tile spacers.

**Environmental and health and safety regulations**

Dispose of waste: segregation for disposal of materials and waste in designated storage areas, containers skips, ensuring the work area is left clean and tidy on completion of work. Use of PPE.

### Learning outcome

The learner will:

6. know how to apply finishing materials to background surfaces.

### Assessment criteria

The learner can:

6.1 state methods for grouting tiles

6.2 state methods for applying sealants to tiling applications.

### Range

**Methods**

Gauging/pinch /staff rods – making and using gauging rod(s) for the purpose of ‘setting out’, battens, use of spirit levels/straight edges, water and laser levels working from string and chalk lines, bedding/fixing to background surface.

**Sealants**

Flexible sealants, liquid sealants – impregnators.
<table>
<thead>
<tr>
<th>Learning outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learner will:</td>
</tr>
<tr>
<td>7. be able to apply finishing materials to tiled surfaces.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learner can:</td>
</tr>
<tr>
<td>7.1 apply grout to tiled surfaces</td>
</tr>
<tr>
<td>7.2 apply sealants to tiled surfaces and backgrounds for completion</td>
</tr>
<tr>
<td>7.3 follow current environmental and health and safety regulations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiled surfaces (AC7.1)</td>
</tr>
<tr>
<td>New and existing ceramic tiled surfaces, use of appropriate grouting tools to achieve required standard and finish.</td>
</tr>
</tbody>
</table>

| Tiled surfaces (AC7.2) |
| New and existing surface sealants - silicone, sealers. |

| Environmental and health and safety regulations: |
| Dispose of waste: segregation for disposal of materials and waste in designated storage areas, containers skips, ensuring the work area is left clean and tidy on completion of work. Use of PPE. |
Unit 128       Set out tiling components

<table>
<thead>
<tr>
<th>UAN:</th>
<th>H/504/8464</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level:</td>
<td>1</td>
</tr>
<tr>
<td>Credit value:</td>
<td>3</td>
</tr>
<tr>
<td>GLH:</td>
<td>30</td>
</tr>
<tr>
<td>Aim:</td>
<td>The aim of this unit is to provide the learner with the skills and knowledge required to set out tiling components.</td>
</tr>
</tbody>
</table>

**Learning outcome**
The learner will:
1. know how to prepare to receive and apply tiling materials.

**Assessment criteria**
The learner can:
1.1 state purposes of **information sources** required to carry out the work
1.2 identify **materials, components, tools and equipment** to be used to carry out the work
1.3 state **reasons** for preparing area and surrounding areas prior to work.

**Range**

**Information sources**
Basic drawings, scales, symbols, abbreviations, delivery notes, job sheets, specification, resources, risk assessment.

**Materials and components**
Screeds, concrete, plaster, render, wall boards, tiles, adhesives, grout.

**Tools and equipment**
Spirit, water and laser level, tapes, rules, straight edges, squares, string and chalk line, 3:4:5.

**Reasons**
Suitability of backgrounds- flat, dry, sound, clean, suitability of working areas - protecting surrounding area, Health and Safety considerations, other trades.
Learning outcome
The learner will:
2. be able to prepare to receive and apply tiling materials.

Assessment criteria
The learner can:
2.1 follow risk assessment whilst carrying out tasks
2.2 identify type, size, quantity and position of materials in accordance with manufacturer's instructions
2.3 select materials, tools and equipment to be used to carry out work
2.4 prepare area and surrounding areas prior to work.

Range
Materials:
tiles, spacers

Hand and power tools
Hand tools: hand operated tile cutter, light and heavy duty tile cutters, lock boy and hammer, hammers, punches, saws, scribes, tiling and standard pincers, chisels, files, trowels, screwdrivers, trimming tools, mitre block, hacksaws, brushes.
Power tools: wet saw, mixing paddle and drill, cordless drill/driver.

Equipment
chalk line, string line, plumb line, serrators, squeegee/grout float, gauge rod, gauging trowel, levels, battens, pencils, carborundum stone, sponges, buckets, tapes, rules, straight edges, squares, calculator, dust sheets
NB: use of retractable knives for unpacking tiles.

Learning outcome
The learner will:
3. know how to set out tiling materials.

Assessment criteria
The learner can:
3.1 state procedures for setting out in accordance with specification and work instructions.

Range
Procedures
Setting out by builders square, 3:4:5 method, levelling by spirit level and straight edge, plumbing, methods using plumb bob/level, centring method, identification of datum points/line, checking dimensions using tape measure and drawings, basic mathematics.
Learning outcome

The learner will:
4. be able to set out tiling materials.

Assessment criteria

The learner can:
4.1 set out accurately in accordance with specification and work instructions
4.2 ensure work area is left clean and tidy on completion of work
4.3 follow current environmental and health and safety regulations.

Range

Set out
Method: establish ‘setting’ out points, setting out by builders square, 3:4:5 method, levelling by spirit level and straight edge, plumbing, methods using plumb bob/level, making and using a gauging rod for alignment and size of tile(s) being used, centring method, identification of datum points, reasons for checking dimensions using tape measure and drawings, basic mathematics.

Environmental and health and safety regulations
Hazards, debris, dust and other obstacles, safe disposal and storage of materials in accordance with regulations. Use of PPE.
Unit 129  Mix tiling materials

<table>
<thead>
<tr>
<th>UAN:</th>
<th>K/504/8465</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level:</td>
<td>1</td>
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<tr>
<td>Credit value:</td>
<td>3</td>
</tr>
<tr>
<td>GLH:</td>
<td>30</td>
</tr>
<tr>
<td>Aim:</td>
<td>The aim of this unit is to provide the learner with the skills and knowledge required to mix tiling materials.</td>
</tr>
</tbody>
</table>

Learning outcome
The learner will:
1. know how to prepare and mix materials.

Assessment criteria
The learner can:
1.1 state purposes of information sources required to carry out the work
1.2 identify materials and tools and equipment to be used to carry out work.

Range
Information sources
Basic drawings, scales, symbols, abbreviations, delivery notes, job sheets, specification, resources, risk assessment, manufacturers’ information.

Materials
Aggregates, cement, concrete, sand, plaster, adhesives, grout.

Tools and equipment
Drill and paddle mixers, cement mixers, ancillaries eg wheelbarrow and shovel.

Learning outcome
The learner will:
2. be able to prepare and mix materials.

Assessment criteria
The learner can:
2.1 use information sources when mixing materials
2.2 identify type, size, quantity and position of materials in accordance with manufacturer’s instructions
2.3 select materials and equipment used to carry out work
2.4 follow current environmental and health and safety regulations.
### Range

#### Information sources
Basic drawings, scales, symbols, abbreviations, delivery notes, job sheets, specification, resources, risk assessment, manufacturer’s information.

#### Materials
Aggregates, cement, plaster, adhesives, grout, sealant.

#### Equipment
Drill and paddle mixers, cement mixers, gauging trowel, calculator, dust sheets, ancillaries eg wheelbarrow and shovel.

#### Environmental and health and safety regulations
Waste Management Act, COSHH, PUWER, Manual Handling, use of PPE.

### Learning outcome
The learner will:
3. know how to gauge and mix materials.

### Assessment criteria
The learner can:
3.1 state **procedures** for gauging and mixing **materials** in accordance with specification and instructions
3.2 state the importance of **disposing** of **materials** in accordance with regulations.

### Range

#### Procedures
Information sources: manufacturers’ technical information, equipment required for mixing, basic calculations, uses and limitations of the materials, methods for reporting defects in materials, maximum time for use of materials, materials by hand mixing, manual handling and lifting techniques.

Gauging: measurements, mix ratios, basic calculations: volume and area

#### Materials
Concrete, screeds, levelling compounds, plaster, render, adhesives, grout.

#### Disposing
Skips, hazardous waste, recycling.
### Learning outcome

The learner will:

4. be able to gauge and mix materials.

### Assessment criteria

The learner can:

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>locate <strong>working areas</strong> suitable for mixing materials</td>
</tr>
<tr>
<td>4.2</td>
<td>use <strong>methods</strong> to gauge and mix materials in accordance with specification and work instructions</td>
</tr>
<tr>
<td>4.3</td>
<td>ensure work area is left clean and tidy on completion of work</td>
</tr>
<tr>
<td>4.4</td>
<td>dispose of <strong>materials</strong> in accordance with legislation</td>
</tr>
<tr>
<td>4.5</td>
<td>follow current <strong>environmental and health and safety regulations</strong></td>
</tr>
</tbody>
</table>

### Range

#### Working areas

Hard surface, clean clear of debris and obstacles.

#### Methods

Correct materials are used for mixing, use of correct mix proportions for the work, materials are fully integrated correctly, mix is to a workable consistency following manufacturer’s guidelines.

#### Materials

Concrete, screeds, levelling compounds, plaster, render, adhesives, grout.

#### Environmental and health and safety regulations

Hazards, debris, dust and other obstacles, safe disposal and storage of materials in accordance with regulations. Use of PPE.
Unit 130  Handle and store tiling materials and accessories

**Learning outcome**
The learner will:
1. know how to handle and store tiling materials and accessories.

**Assessment criteria**
The learner can:
1.1 state purposes of information sources required to carry out the work
1.2 state defects that can be found in materials and accessories.

**Range**

**Information sources**
Manufacturer's technical information, manufacturer's COSHH data, health and safety legislation. Job sheet, specification, delivery notes, basic drawings, online information, written and oral instructions, risk assessment.

**Defects**
Damage of materials, shade variation, different codes/batch numbers out of date, size/shape variation.

**Materials and accessories**
Adhesives, grout, trims, spacers, tiles, screeds, concrete, plaster, render.
# Learning outcome

The learner will:

2. be able to prepare to handle and store tiling materials and accessories.

## Assessment criteria

The learner can:

2.1 follow a risk assessment whilst carrying out work
2.2 select **materials and accessories** from **information sources**
2.3 identify **defects** in **materials and accessories**.

## Range

### Materials and accessories

- Adhesives, grout, trims, spacers, tiles, screeds, concrete, plaster, render, battens.

### Information sources

- Manufacturer’s technical information, manufacturer’s COSHH data, health and safety legislation. Job sheet, specification, delivery notes, basic drawings.

### Defects

- Damage of materials, shade variation, different codes/batch numbers out of date, size/shape variation.

---

# Learning outcome

The learner will:

3. know how to handle tiling materials and accessories manually.

## Assessment criteria

The learner can:

3.1 state **manual handling techniques** and procedures used when handling materials and accessories.

## Range

### Manual handling techniques

- Kinetic lifting, team lifting, Manual Handling Operations Regulations mechanical aids.
- Manual handling procedures: ensuring the route or area is safe and clear walking with materials loads and accessories, correct use of Personal Protective Equipment (PPE).
### Learning outcome
The learner will:
4. be able to handle tiling materials and accessories manually.

### Assessment criteria
The learner can:
4.1 demonstrate safe **manual handling** techniques whilst lifting and moving **accessories**
4.2 use correct methods to minimise damage to accessories and personnel when handling manually.

### Range

#### Manual handling
Procedures: ensuring the route or area is safe and clear walking with materials loads and accessories, correct use of personal protective equipment (PPE).

#### Accessories
Tiles, aggregates, screeds, cement, plaster, render.

### Learning outcome
The learner will:
5. know how to store tiling materials and accessories.

### Assessment criteria
The learner can:
5.1 state **considerations** for storing **materials and accessories**
5.2 state the different method of protection and the effects the elements can have on **materials and accessories**
5.3 state **security** requirements for different **materials and accessories**.

### Range

#### Considerations
Climatic change, protected from the elements, expiry date, stock rotation, organised storage eg by size, hazardous materials, security.

#### Materials and accessories
Tiles, aggregates, screeds, cement, plaster, render, adhesives, grout, sheet materials, screws and nails.

#### Security
Site induction, locked storage, security personnel, alarms, CCTV.
| Learning outcome |
The learner will:
6. be able to store construction materials and accessories.

| Assessment criteria |
The learner can:
6.1 store **materials and accessories** in accordance with organisational procedures.

| Range |
**Materials and accessories**
Tiles, aggregates, screeds, cement, plaster, render, adhesives, grout, sheet materials, screws and nails.

| Learning outcome |
The learner will:
7. know how to check and record incoming materials.

| Assessment criteria |
The learner can:
7.1 state **requirements** when checking and recording incoming **materials and accessories**.

| Range |
**Requirements**
Filing and booking in procedures, delivery notes and invoices, reasons for keeping records updated methods of reporting shortages or defects.

**Materials and accessories**
Tiles, aggregates, screeds, cement, plaster, render, adhesives, grout, sheet materials, screws and nails.

| Learning outcome |
The learner will:
8. be able to check and record incoming materials.

| Assessment criteria |
The learner can:
8.1 check **materials** comply with delivery notes.

| Range |
**Materials**
Tiles, adhesives, grout.
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.

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:

- Regulatory Arrangements for the Qualifications and Credit Framework (2008)
- SQA Awarding Body Criteria (2007)

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 on such things 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

UK learners
General qualification information
T: +44 (0)844 543 0033
E: learnersupport@cityandguilds.com

International learners
General qualification information
T: +44 (0)844 543 0033
F: +44 (0)20 7294 2413
E: intcg@cityandguilds.com

Centres
Exam entries, Certificates,
Registrations/enrolment, Invoices,
Missing or late exam materials,
Nominal roll reports, Results
T: +44 (0)844 543 0000
F: +44 (0)20 7294 2413
E: centresupport@cityandguilds.com

Single subject qualifications
Exam entries, Results, Certification,
Missing or late exam materials,
Incorrect exam papers, Forms
request (BB, results entry), Exam
date and time change
T: +44 (0)844 543 0000
F: +44 (0)20 7294 2413
F: +44 (0)20 7294 2404 (BB forms)
E: singlesubjects@cityandguilds.com

International awards
Results, Entries, Enrolments,
Invoices, Missing or late exam
materials, Nominal roll reports
T: +44 (0)844 543 0000
F: +44 (0)20 7294 2413
E: intops@cityandguilds.com

Walled Garden
Re-issue of password or username,
Technical problems, Entries,
Results, e-assessment, Navigation,
User/menu option, Problems
T: +44 (0)844 543 0000
F: +44 (0)20 7294 2413
E: walledgarden@cityandguilds.com

Employer
Employer solutions, Mapping,
Accreditation, Development Skills,
Consultancy
T: +44 (0)121 503 8993
E: business@cityandguilds.com

Publications
Logbooks, Centre documents,
Forms, Free literature
T: +44 (0)844 543 0000
F: +44 (0)20 7294 2413

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HB-01-6710