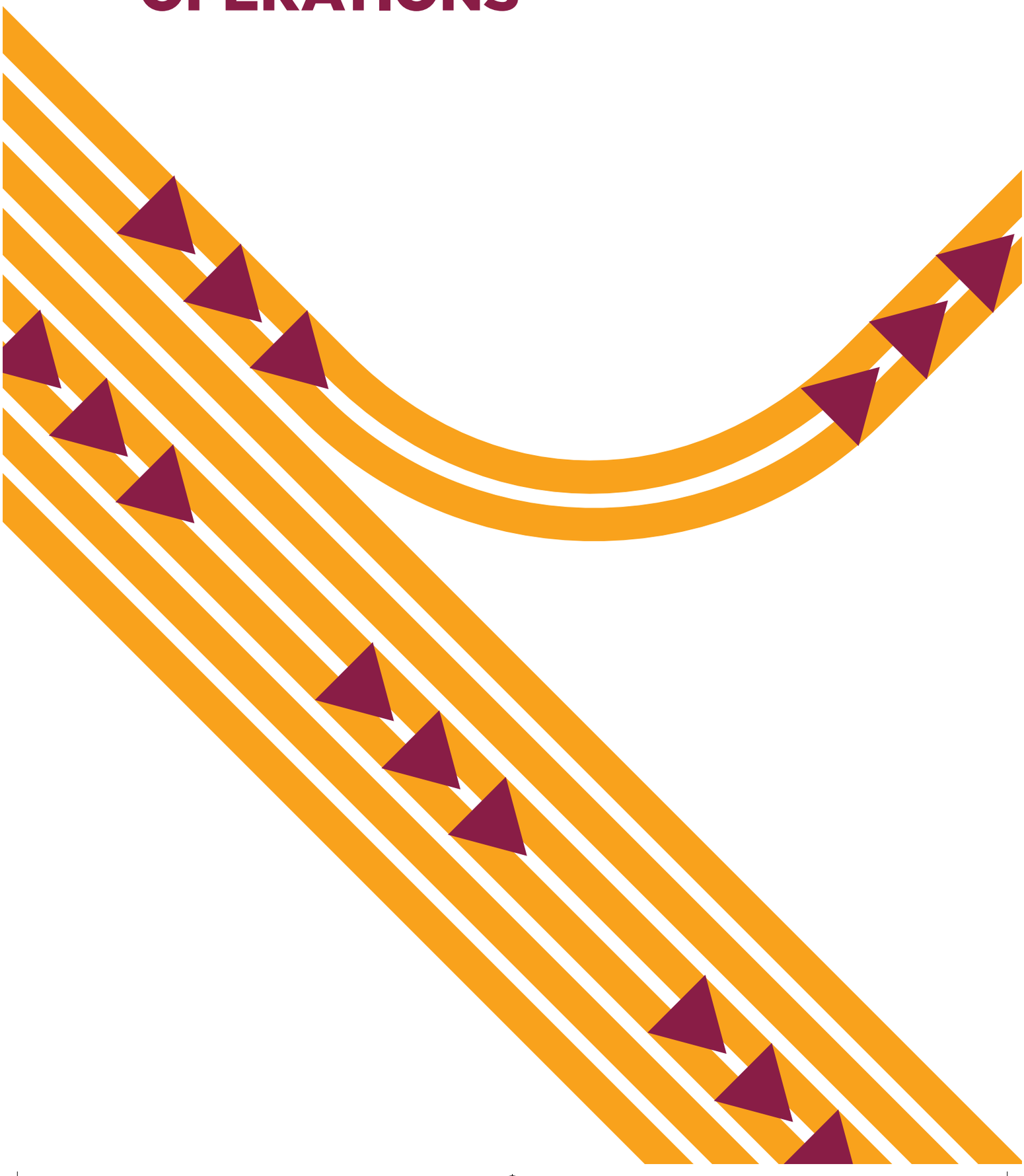
CANDIDATE LOGBOOK
LEVEL 2 NVQ DIPLOMA IN

PERFORMING MANUFACTURING OPERATIONS

City & Guilds



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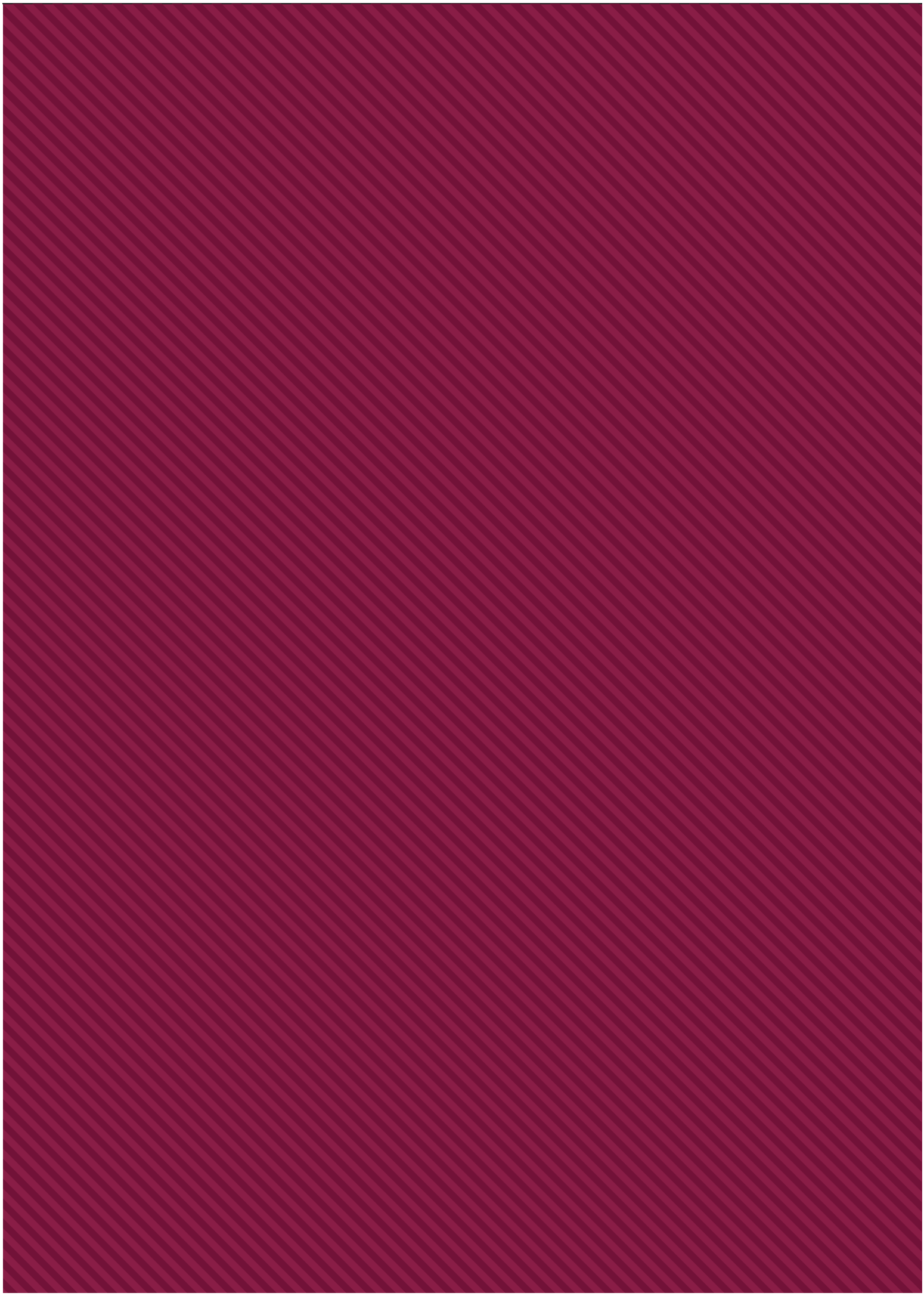

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CANDIDATE LOGBOOK
LEVEL 2 NVQ DIPLOMA IN

Performing Manufacturing Operations

Name
City & Guilds enrolment number
Date registered with City & Guilds
Date enrolled with centre
Centre name
Centre number
Centre address
Assessor name
Internal Verifier name

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City & Guilds
1 Giltspur Street
London EC1A 9DD
T +44 (0)844 543 0000
www.cityandguilds.com
centresupport@cityandguilds.com

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Cover design by James Godwin
Edited by Mary Groom
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SmartScreen is the City & Guilds online support site, offering a range of support materials for learners and tutors. Ask your tutor if your centre has a subscription to access extra resources and support materials.

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FURTHER OPTIONAL UNITS

Download these at: **www.cityandguilds.com/logbookoptionalunits**

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Introduction

Welcome to your City & Guilds Candidate Logbook. You are about to start a programme of assessment in your centre or workplace leading to the Level 2 NVQ Diploma in Performing Manufacturing Operations. This Candidate Logbook has been produced to provide you with information and to help you as you work through achieving your qualification. As you progress, you will be able to demonstrate that you have the necessary practical skills and the knowledge and competence to do your work effectively and efficiently.

This logbook is designed to help you work towards your NVQ Diploma by:

- **showing you what you need to achieve**
- **helping you to record your achievements and evidence.**

In this logbook, you will find some of the forms that you and your assessor will use for your NVQ Diploma. Other forms will be provided by your assessor.

We're sure that you will have lots of questions about your qualification, and this introduction should answer some of them. Of course, your assessor will also be on hand to be your guide, but here are the answers to questions you may have now. **Good luck!**

WHAT QUALIFICATION AM I DOING?

The Level 2 NVQ Diploma in Performing Manufacturing Operations. This is a 'vocational' qualification, which means that the work you do to achieve this qualification is mainly about skills and real work activities. This qualification aims to develop the skills of people like you.

WHO WILL DECIDE WHETHER I HAVE ACHIEVED THE STANDARDS?

In an NVQ Diploma, you are either 'competent' or 'not competent'. This means that if you have not quite got everything right when you do something, you will have a chance to do it again after more practice – remember, practice makes perfect! There are a number of people who will help you decide when you are competent:

1 YOUR ASSESSOR

A person within the assessment centre or college who is very experienced in the area of work that you are training in. Your assessor will be overseeing your work towards the qualification on a regular basis.

2 INTERNAL VERIFIER (IV)

A person within the assessment centre or college who checks that all the assessments made by the assessors are carried out to the correct standards.

3 EXTERNAL VERIFIER (EV)

Someone from City & Guilds who visits your centre or college to check that all the assessments are correct and are up to the same standard as those made in other centres. This ensures that you are not working to a higher or lower level than candidates in other centres. External Verifiers also check that your centre is operating the qualification properly and fairly and has all the systems and equipment in place for your NVQ Diploma.

HOW DO THE UNITS WORK?

To achieve the Level 2 NVQ Diploma in Performing Manufacturing Operations, you must complete six units, from the following options:

- **Two** of the following mandatory units – unit 201 and either 202 or 221.
- **Three** units from the following 'supporting the operations' group – units 203, 204, 205, 206, 207, 218, 219, 220, 223 (NB you may not choose both 205 and 206).
- **One** unit from the following job specific units – units 203, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 220, 222.

Each unit that you complete has a credit value and details what you must be able to do and what you should know to be deemed competent. Once you have achieved all the requirements of a unit, you will be able to count that unit's credit towards your qualification. Each credit indicates around 10 hours of learning time, so you can easily see how long the unit and the qualification will take you. The qualification you are working towards is the City & Guilds Level 2 NVQ Diploma in Performing Manufacturing Operations, and the minimum value you must achieve is 37 credits. This means that the qualification will/could take you approximately 370 hours of learning to complete.

To gain your City & Guilds certificate you will be expected to show competence in the relevant units and, when you have successfully completed these units, you will be able to claim your qualification from City & Guilds. Even if you only complete some of the units, you will still be able to claim unit certification. Your assessor will be able to tell you exactly what you have achieved if you're unsure.

DO I HAVE TO COMPLETE EACH UNIT BEFORE I MOVE ON TO THE NEXT ONE?

No. As you are going about your everyday work or course activities, you may be covering sections that occur in more than one unit. Your assessor will help you to work out which parts of which units you are covering while you complete your regular work or course activities.

WHAT STEPS WILL I NEED TO TAKE TO COMPLETE MY QUALIFICATION?

STEP 1 – PLANNING

Your assessor will tell you about the units that you're going to be doing. Your assessor will want to find out what experience you already have, because it may count towards your award. At the end of the discussion with your assessor, you should have an 'assessment plan', which sets out how you will go about achieving this qualification.

STEP 2 – PRODUCING EVIDENCE

You will produce your evidence from work that you carry out in the workplace. These logbook forms are a way of recording your evidence, which can be filled out by your assessor, an expert witness or yourself. Your assessor will advise you on this. If your assessor tells you that you are competent after an assessment, it will be recorded on the forms in your logbook.

You will need to complete the logbook forms for each unit that you are doing. The criteria for all performance evidence needs to be assessed on three separate occasions, and the knowledge needs to be assessed once.

STEP 3 – FEEDBACK

You will be given feedback by your assessor after each assessment and further training will be suggested if you need it. You should keep track of how much you have achieved and what you still have to achieve, but don't worry as you will discuss your progress with your assessor regularly. You can also use the 'Summary of unit achievement' form on pages 10–11 to help you.

STEP 4 – ACHIEVEMENT

When you have completed your units and your assessor is sure that you have the evidence you need, your centre will apply to City & Guilds for your certificate. You will receive the full NVQ Diploma certificate only if you have completed all the required units, otherwise you will receive a certificate listing the units that you have completed successfully.

HOW LONG WILL IT TAKE TO COMPLETE MY QUALIFICATION?

There is no time limit set by City & Guilds for you to complete your NVQ Diploma but your centre may have some requirements that they will explain to you. Many candidates complete the Level 2 NVQ Diploma qualification within six months, but this depends on any previous experience and what work you are actually doing in the workplace.

WHERE DO I GO IF I NEED MORE INFORMATION ABOUT MY ASSESSMENTS AND QUALIFICATION?

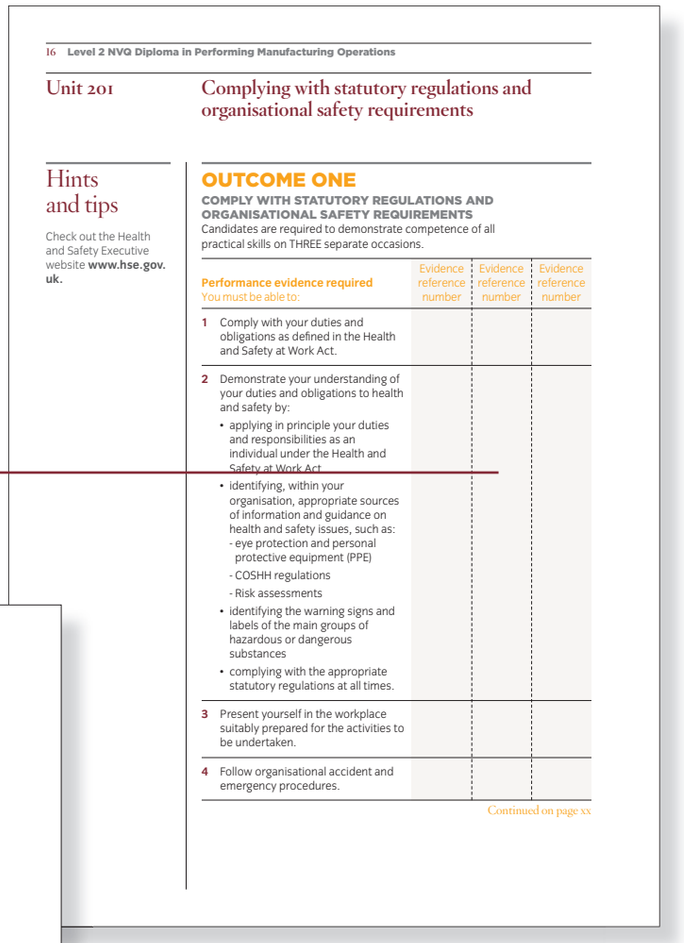
- Your assessor is the most important source of information about your qualification.
- On very rare occasions, if you disagree with an assessor's decision, you should use your centre's appeal procedure. Ask an assessor or your Internal Verifier (IV) to help you if you are unsure about how to do this. Your centre will refer any unresolved problems to City & Guilds.
- Your centre's website. Make a note of the address here:

- The City & Guilds website: **www.cityandguilds.com**

  or City & Guilds Customer Relations on: **+44 (0)20 7294 2468**.

How to use your Candidate Logbook

You will work with your assessor to fill out the units in this logbook. Here's a quick guide to how to fill in the forms.



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Unit 201 Complying with statutory regulations and organisational safety requirements

Hints and tips

Check out the Health and Safety Executive website **www.hse.gov.uk.**

OUTCOME ONE

COMPLY WITH STATUTORY REGULATIONS AND ORGANISATIONAL SAFETY REQUIREMENTS

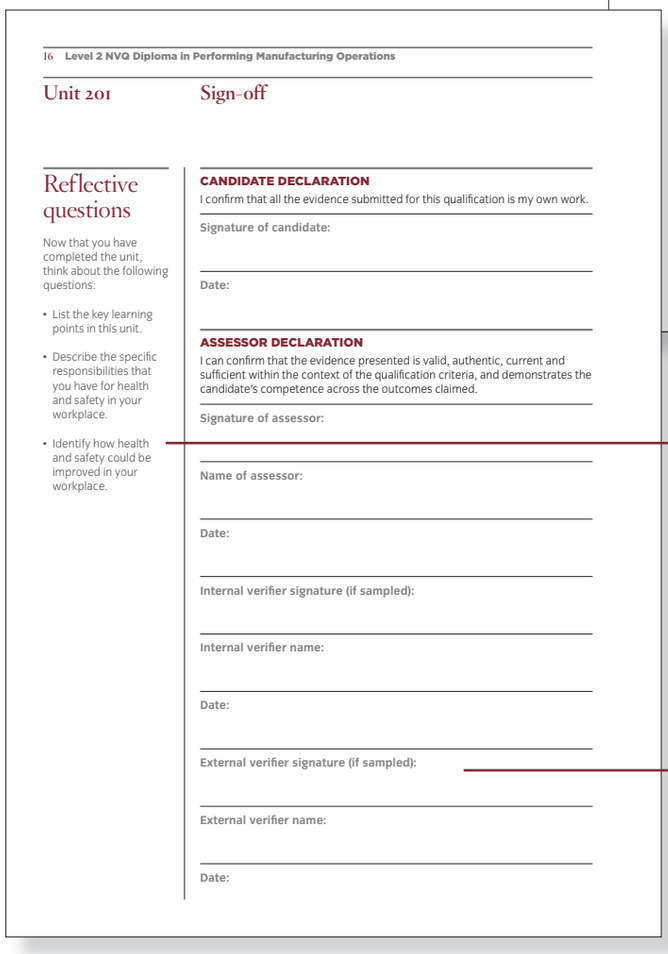
Candidates are required to demonstrate competence of all practical skills on THREE separate occasions.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Comply with your duties and obligations as defined in the Health and Safety at Work Act.			
2 Demonstrate your understanding of your duties and obligations to health and safety by: • applying in principle your duties and responsibilities as an individual under the Health and Safety at Work Act • identifying, within your organisation, appropriate sources of information and guidance on health and safety issues, such as: - eye protection and personal protective equipment (PPE) - COSHH regulations - Risk assessments • identifying the warning signs and labels of the main groups of hazardous or dangerous substances • complying with the appropriate statutory regulations at all times.			
3 Present yourself in the workplace suitably prepared for the activities to be undertaken.			
4 Follow organisational accident and emergency procedures.			

Continued on page xx

EVIDENCE

To prove that you have carried out the required activities in your workplace, you will need to collect evidence that will be stored in a separate portfolio. References to these pieces of evidence should be written in one of the shaded columns, next to the relevant criteria.



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Unit 201 Sign-off

Reflective questions

Now that you have completed the unit, think about the following questions:

- List the key learning points in this unit.
- Describe the specific responsibilities that you have for health and safety in your workplace.
- Identify how health and safety could be improved in your workplace.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

Signature of assessor:

Name of assessor:

Date:

Internal verifier signature (if sampled):

Internal verifier name:

Date:

External verifier signature (if sampled):

External verifier name:

Date:

REFLECTIVE QUESTIONS

At the end of the unit, these questions will help you to reflect on what you have achieved and to consider how you can further develop and improve your performance.

SIGN OFF

The end of each unit has a sign off form for you, your assessor and your Internal Verifier to fill out, once all the outcomes in the unit have been completed.

Summary of unit achievement

By signing this summary of unit achievement we are confirming that all the requirements for these units have been completed and that the evidence is authentic and has been obtained under specified conditions for which certification is now requested.

Candidate name	Candidate enrolment number

Centre name	Centre number

	Date achieved	Assessor signature	Candidate signature	IV signature (if sampled)
MANDATORY UNIT				
201 Complying with statutory regulations and organisational safety requirements				
CHOOSE ONE UNIT FROM THE FOLLOWING				
202 Promoting effective working relationships				
221 Contributing to effective team working				
CHOOSE THREE UNITS FROM THE FOLLOWING				
203 Transferring materials				
204 Preparing for manufacturing operations				
205 Concluding manufacturing operations				
206 Ensuring effective handover of manufacturing operations				

	Date achieved	Assessor signature	Candidate signature	IV signature (if sampled)
207 Receiving and checking incoming materials				
218 Controlling manufacturing operations				
220 Analysing the results of inspection and confirming quality of production				
223 Recording and reporting inspection and test results				
CHOOSE ONE UNIT FROM THE FOLLOWING				
203 Transferring materials				
208 Producing shaped products				
209 Producing products by assembly operations				
210 Producing joined products				
211 Producing products by processing				
212 Producing formed products				
213 Finishing products				
214 Producing moulded products				
215 Producing packaged products				
216 Making products using computer controlled equipment				
217 Manufacturing products using combined manufacturing operations				
220 Analysing the results of inspection and confirming quality of production				
222 Carrying out inspection and testing activities				

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Unit 201

Complying with statutory regulations and organisational safety requirements

INTRODUCTION

This unit will give you the chance to examine the general health and safety requirements that apply to your workplace and enable you to demonstrate that you can comply with all the relevant regulations.

Specifically you will need to:

- carry out your general responsibilities as defined in the Health and Safety at Work Act
- identify your first aider and where the first aid facilities are located in your workplace
- know what to do in the case of an accident that causes an injury and where there are dangerous occurrences or hazardous malfunctions of equipment, processes or machinery
- understand what to do in a fire alert and the evacuation of your workplace
- be able to identify the hazards and risks that are associated with your job
- comply with all the relevant statutory and organisational policies and procedures for health and safety in your workplace
- act in a responsible and safe manner at all times and present yourself suitably prepared for the work to be undertaken
- report any problems with health and safety to the relevant person in your workplace.

LEARNING OUTCOMES

1 **Comply with statutory regulations and organisational safety requirements**

2 **Know how to comply with statutory regulations and organisational safety requirements**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following words or phrases used in this unit.

COSHH
COSHH stands for Control of Substances Hazardous to Health.

Hazard
A situation that has the potential to cause harm.

Hazardous substances
There are seven main groups of hazardous substances: harmful, irritant, corrosive, extremely flammable/ flammable, explosive, oxidising, very toxic/ toxic.

Risk
The chance or possibility of something dangerous or hazardous occurring.

Unit 201 Complying with statutory regulations and organisational safety requirements

Hints and tips

Check out the Health and Safety Executive website: **www.hse.gov.uk.**

OUTCOME ONE

COMPLY WITH STATUTORY REGULATIONS AND ORGANISATIONAL SAFETY REQUIREMENTS

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Comply with your duties and obligations as defined in the Health and Safety at Work Act.			
2 Demonstrate your understanding of your duties and obligations to health and safety by: • applying in principle your duties and responsibilities as an individual under the Health and Safety at Work Act • identifying, within your organisation, appropriate sources of information and guidance on health and safety issues, such as: – eye protection and personal protective equipment (PPE) – COSHH regulations – Risk assessments • identifying the warning signs and labels of the main groups of hazardous or dangerous substances • complying with the appropriate statutory regulations at all times.			
3 Present yourself in the workplace suitably prepared for the activities to be undertaken.			
4 Follow organisational accident and emergency procedures.			

Continued on page 15

OUTCOME ONE continued

COMPLY WITH STATUTORY REGULATIONS AND ORGANISATIONAL SAFETY REQUIREMENTS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
5 Comply with emergency requirements, to include: • identifying the appropriate qualified first aiders and the location of first aid facilities • identifying the procedures to be followed in the event of injury to yourself or others • following organisational procedures in the event of fire and the evacuation of premises • identifying the procedures to be followed in the event of dangerous occurrences or • hazardous malfunctions of equipment.			
6 Recognise and control hazards in the workplace.			
7 Identify the hazards and risks that are associated with the following: • your working environment • the equipment that you use • materials and substances (where appropriate) that you use • working practices that do not follow laid-down procedures.			
8 Use correct manual lifting and carrying techniques.			
9 Demonstrate **one** of the following methods of manual lifting and carrying: • lifting alone • with assistance of others • with mechanical assistance.			

Continued on page 16

Hints and tips

Make sure that you always wear the PPE provided to you by your organisation. It is there to protect you.

Unit 201 Complying with statutory regulations and organisational safety requirements

What you could do

- Look around your workplace and identify any hazards and risks and suggest ways in which they might be controlled.
- Do some internet research on health and safety legislation.
- Obtain and read a copy of your organisation's health and safety policy.
- Ask your organisation's health and safety representative about procedures in your workplace.
- Talk to your first aider about the facilities available in your workplace.

OUTCOME ONE continued

COMPLY WITH YOUR DUTIES AND OBLIGATIONS AS DEFINED IN THE HEALTH AND SAFETY AT WORK ACT

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
10 Apply safe working practices and procedures to include: • maintaining a tidy workplace, with exits and gangways free from obstruction • using equipment safely and only for the purpose intended • observing organisational safety rules, signs and hazard warnings • taking measures to protect others from any harm resulting from the work that you are carrying out.			

OUTCOME TWO

KNOW HOW TO COMPLY WITH STATUTORY REGULATIONS AND ORGANISATIONAL SAFETY REQUIREMENTS

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the roles and responsibilities of yourself and others under the Health and Safety at Work Act, and other current legislation (such as The Management of Health and Safety at Work Regulations, Workplace Health and Safety and Welfare Regulations, Personal Protective Equipment at Work Regulations, Manual Handling Operations Regulations, Provision and Use of Work Equipment Regulations, Display Screen at Work Regulations, Reporting of Injuries, Diseases and Dangerous Occurrences Regulations).			

Continued on page 17

OUTCOME TWO continued

KNOW HOW TO COMPLY WITH STATUTORY REGULATIONS AND ORGANISATIONAL SAFETY REQUIREMENTS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
2 Describe the specific regulations and safe working practices and procedures that apply to your work activities.			
3 Describe the warning signs for the seven main groups of hazardous substances defined by Classification, Packaging and Labelling of Dangerous Substances Regulations.			
4 Explain how to locate relevant health and safety information for your tasks, and the sources of expert assistance when help is needed.			
5 Explain what constitutes a hazard in the workplace (such as moving parts of machinery, electricity, slippery and uneven surfaces, poorly placed equipment, dust and fumes, handling and transporting, contaminants and irritants, material ejection, fire, working at height, environment, pressure/stored energy systems, volatile, flammable or toxic materials, unshielded processes, working in confined spaces).			
6 Describe your responsibilities for identifying and dealing with hazards and reducing risks in the workplace.			

Continued on page 18

Unit 201 Complying with statutory regulations and organisational safety requirements

OUTCOME TWO continued

KNOW HOW TO COMPLY WITH STATUTORY REGULATIONS AND ORGANISATIONAL SAFETY REQUIREMENTS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
7 Describe the risks associated with your working environment (such as the tools, materials and equipment that you use, spillages of oil, chemicals and other substances, not reporting accidental breakages of tools or equipment and not following laid-down working practices and procedures).			
8 Describe the processes and procedures that are used to identify and rate the level of risk (such as safety inspections, the use of hazard checklists, carrying out risk assessments, COSHH assessments).			
9 Describe the first aid facilities that exist within your work area and within the organisation in general; the procedures to be followed in the case of accidents involving injury.			
10 Explain what constitute dangerous occurrences and hazardous malfunctions, and why these must be reported even if no-one is injured.			
11 Describe the procedures for sounding the emergency alarms, evacuation procedures and escape routes to be used, and the need to report your presence at the appropriate assembly point.			
12 Describe the organisational policy with regard to fire fighting procedures; the common causes of fire and what you can do to help prevent them.			

Continued on page 19

OUTCOME TWO continued

KNOW HOW TO COMPLY WITH STATUTORY REGULATIONS AND ORGANISATIONAL SAFETY REQUIREMENTS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
13 Describe the protective clothing and equipment that is available for your areas of activity.			
14 Explain how to safely lift and carry loads, and the manual and mechanical aids available.			
15 Explain how to prepare and maintain safe working areas; the standards and procedures to ensure good housekeeping.			
16 Describe the importance of safe storage of tools, equipment, materials and products.			
17 Describe the extent of your own authority, and to whom you should report in the event of problems that you cannot resolve.			

SPECIFIC UNIT REQUIREMENTS

This unit must be assessed in a work environment.

Hints and tips

It is important to keep your work area clean and tidy. This will minimise health and safety risks.

Unit 201 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points in this unit.
- Describe the specific responsibilities that you have for health and safety in your workplace.
- Identify how health and safety could be improved in your workplace.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

Signature of assessor:

Name of assessor:

Date:

Internal Verifier signature (if sampled):

Internal Verifier name:

Date:

External Verifier signature (if sampled):

External Verifier name:

Date:

Unit 202

Promoting effective working relationships

INTRODUCTION

This unit will give you the opportunity to examine your working relationships and enable you to demonstrate that you can both develop and maintain these relationships appropriately.

Specifically you will need to:

- further working relationships with a range of people such as: those you work with, staff in other departments, your supervisor, your manager and external suppliers and customers
- deal with any disagreements in an amicable and constructive way
- contribute to work activities by offering ideas and solutions to problems
- find ways of resolving issues that cause concern and/or disagreement
- report to the appropriate person any problems that you cannot resolve or don't have the authority to do so
- comply with your organisation's policies and procedures at all times
- understand what sort of things can affect good working relationships
- be aware of the techniques that can be used to help maintain and develop good working relationships
- understand how your actions can affect working relationships.

LEARNING OUTCOMES

1 **Promote effective working relationships**

2 **Know how to promote effective working relationships**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following terms used in this unit.

Equal opportunities
The principle of treating all people equally, regardless of gender, age, race or religion, etc.

Methods of communication
Methods of communication include face-to-face, written, telephone, etc.

Reporting lines
The lines of responsibility in an organisation.

Welfare officer
A person who is appointed to be responsible for the general well-being of staff.

Unit 202 Promoting effective working relationships

Hints and tips

Check out the equality and human rights commission at **www.equalityhumanrights.com**.

OUTCOME ONE

PROMOTE EFFECTIVE WORKING RELATIONSHIPS

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Present yourself in the workplace on time and in a way that does not cause concern to others.			
2 Promote and maintain working relationships with **three** of the following: • immediate supervision/line management • colleagues in same work group • colleagues in other work groups • personnel in other departments (such as those supplying inputs or receiving outputs) • managers and supervisors in other departments • external contacts (such as customers, clients).			
3 Ask for information, advice and/or help politely, without causing disruption to your own or others' work.			
4 Offer help and information to others promptly and willingly.			
5 Respect the views, rights and property of others.			
6 Identify problems in working relationships.			

Continued on page 23

OUTCOME ONE continued

PROMOTE EFFECTIVE WORKING RELATIONSHIPS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
7 Discuss problems which may affect working relationships with the appropriate person, including **two** of the following: • work colleagues • supervisor • line manager • team leader • personnel or welfare officer.			
8 Deal with problems in working relationships in ways which minimise offence and maintain the mutual respect of others, including **two** of the following: • work related issues • personal issues • communication problems.			
9 Make sure that any actions that you take are within the limits of your own responsibility and authority.			
10 Refer requests for information and/or assistance that are outside your authority/responsibility to the appropriate person.			
11 Resolve disagreements and difficulties in working relationships with the appropriate person.			
12 Communicate in a way that promotes understanding, goodwill and trust.			
13 Maintain effective communication using **two** of the following methods: • in writing • electronically • orally.			

Hints and tips

When problems occur that you don't have the authority to resolve it is important to tell the appropriate person as quickly as possible. They can then deal with the problem before it escalates.

Unit 202 Promoting effective working relationships

Hints and tips

Listening is an important communication skill and you should try to practise it regularly in the workplace.

OUTCOME TWO

KNOW HOW TO PROMOTE EFFECTIVE WORKING RELATIONSHIPS

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the statutory regulations that can affect working relationships, ie Disability, Equal Opportunities, Discrimination, Harassment.			
2 Explain why it is important to present yourself in the workplace on time and ready for work.			
3 Explain the methods in your organisation that can be used to gain information, advice and help.			
4 Explain the methods that can be used to establish and maintain good working relationships.			
5 Explain what might affect good working relationships.			
6 Explain how to identify problems in working relationships.			
7 Explain the methods of handling and resolving problems in working relationships.			
8 Explain why it is important to resolve difficulties or misunderstandings quickly and not let them develop into more serious problems.			
9 Explain how to identify and use different methods and styles of communication.			
10 Explain why it is important to avoid disruption in the workplace, and methods of avoiding it.			

Continued on page 25

OUTCOME TWO continued

KNOW HOW TO PROMOTE EFFECTIVE WORKING RELATIONSHIPS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
11 Explain why it is important to request help from others in a polite and timely manner and to offer assistance to others when help is needed.			
12 Explain why it is important to show respect for the views, rights and property of others.			
13 Explain who to refer to with requests that are not within the limits of your responsibility.			
14 Explain who to refer to if you have problems with working relationships that you cannot resolve.			
15 Explain what your responsibilities are with regard to the reporting lines and procedures in your working area.			
16 Explain what the responsibilities are of the people identified in assessment criteria 14 and 15 above.			

SPECIFIC UNIT REQUIREMENTS

The use of simulation within a realistic working environment is acceptable for assessment criteria 1.6, 1.7, 1.8, 1.10 and 1.11.

What you could do

- Talk to your colleagues and your supervisor/manager about problems that have occurred in your workplace as a result of poor communication.
- Do some internet research on effective methods of communication.
- Write down a list of actions that would help to improve how your team communicates with others, both within and outside of your organisation.
- Ask your personnel officer about how to handle conflict and aggression in your workplace.
- Look at your organisation's policies on disability, equal opportunities, discrimination and harassment.

Unit 202 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points in this unit.
- Describe why it is important to have good working relationships with others.
- Give three examples to identify the specific limits of your own responsibility and authority with regard to problems in working relationships.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

Signature of assessor:

Name of assessor:

Date:

Internal Verifier signature (if sampled):

Internal Verifier name:

Date:

External Verifier signature (if sampled):

External Verifier name:

Date:

Unit 203

Transferring materials

INTRODUCTION

To successfully complete this unit you will need to show that you have the skills and knowledge required to transfer, move and transport materials to their correct location within your workplace.

Specifically you will need to:

- use manual lifting and handling techniques
- choose the right equipment to use to move materials
- load materials correctly
- follow job instructions when moving materials to their intended destination
- return any equipment used for the transfer of materials to its correct position on completion of the activity and leave it in a safe condition in accordance with operating procedures and all health and safety requirements
- meet production requirements
- comply with organisational policy and procedures for moving materials and report any problems with the process, equipment, materials or documentation used that you cannot resolve, or is outside of your permitted authority, to the appropriate person
- work to instructions, with minimum supervision, taking responsibility for your own actions
- complete documentation accurately and legibly
- demonstrate safe working practices and understand your responsibilities for your own safety and that of others in your workplace.

LEARNING OUTCOMES

1 **Transfer materials**

2 **Know how to transfer materials**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following terms used in this unit.

Consumable materials
Materials that do not feature in a manufactured product, but are necessary to carry out the production, for example machine oil and cleaning materials.

Regulations
Rules and restrictions that control work processes.

Safe lifting capacity
The rated capacity of lifting equipment.

Waste products
Items that are not recycled and result in a loss to the organisation.

Unit 203 Transferring materials

What you could do

- Obtain and read a copy of your organisation's moving equipment guidelines.
- Do some internet research on lifting and moving procedures and safety requirements.
- Obtain and read a copy of your organisation's lifting and moving procedures.
- Look around your workplace and identify any hazards associated with moving materials.
- Talk to your organisation's health and safety representative about actions that should be taken to minimise the identified hazards.

OUTCOME ONE

TRANSFER MATERIALS

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines.			
2 Follow the relevant lifting and moving procedures and safety requirements to include **all** of the following: • health and safety regulations • safe working practices • job instructions • lifting and moving equipment operating instructions • company standards and procedures.			
3 Choose the right equipment/ techniques to move the materials.			
4 Move materials using **one** or more of the following types of equipment: • hand operated • power operated.			
5 Carry out lifting and carrying techniques, to include **two** of the following: • lifting alone • lifting with assistance from others • lifting with mechanical assistance.			

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OUTCOME ONE continued

TRANSFER MATERIALS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
6 Carry out safe and correct manual lifting techniques, to include **three** of the following: • lifting from ground level • lifting from an angle • lifting from waist high • lifting from below ground level • lifting from overhead.			
7 Check that the weight of the materials does not exceed the safe lifting capacity of the equipment chosen.			
8 Check that the materials to be moved are correct, safely loaded and secure.			
9 Carry out checks of the materials to be moved, to include **all** of the following: • the materials are as specified on the documentation • the materials are stacked safely • materials are in a suitable condition for the moving operation • the load does not exceed the safe lifting capacity of the equipment • the load is secure • there are no restrictions or obstacles preventing movement of the materials.			

Continued on page 30

Hints and tips

Check out the Health and Safety Executive website **www.hse.gov.uk**.

Unit 203 Transferring materials

Hints and tips

Make sure you check the weight of any materials before attempting to lift them – otherwise you could injure yourself.

OUTCOME ONE continued

TRANSFER MATERIALS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
10 Move the materials to their correct location in accordance with instructions, to include **one** of the following: • production materials • consumable materials • finished products or components • waste or scrap.			
11 Identify any problems with the material transfer.			
12 Take appropriate action to solve problems which are within your permitted authority/responsibility.			
13 Make permitted adjustments to solve problems related to **two** of the following: • equipment condition • material weight/suitability for moving • securing the load in place.			
14 Report any problems that you cannot solve or are outside your permitted authority to the appropriate person, to include one of the following: • supervisor • team leader • quality control.			
15 Return any equipment you have used to its correct location on completion of the activities and leave it in a safe and reusable condition.			
16 Maintain any material's movement documentation accurately and legibly.			

OUTCOME TWO

KNOW HOW TO TRANSFER MATERIALS

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the relevant health and safety requirements of the work area in which you are carrying out the material moving operations.			
2 Explain the specific safe working practices, lifting and moving procedures and regulations that need to be observed.			
3 Explain the hazards associated with carrying out the material moving operations.			
4 Explain how the specific hazards can be minimised.			
5 Explain what personal protective equipment needs to be used during the material movement activities and where it can be obtained.			
6 Explain how to obtain the necessary job instructions, lifting and moving equipment operating procedures and how to interpret them.			
7 Explain what procedures and documentation are required to allow the transfer of materials to take place.			
8 Explain what tools and equipment are used for the material movement operations undertaken and how to check that they are in a safe and usable condition.			

Continued on page 32

Unit 203 Transferring materials

OUTCOME TWO continued

KNOW HOW TO TRANSFER MATERIALS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
9 Explain how to choose the most suitable equipment for the moving operation being performed.			
10 Explain the lifting and handling procedures, and load bearing capacities of the equipment being used.			
11 Explain how to apply manual lifting techniques when lifting alone and with the assistance of others.			
12 Explain what specific moving/ transfer operations are being performed.			
13 Explain how to identify problems with the moving/transfer operation.			
14 Explain what action you should take to solve problems that are within the limits of your responsibility.			
15 Explain why it is important to report problems to the appropriate people when you cannot solve them and/or they are not your responsibility.			
16 Explain why is it important to return the equipment to its correct location on completion of the activities, store it correctly, and leave it in a safe and reusable condition.			
17 Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly.			

Continued on page 33

OUTCOME TWO continued

KNOW HOW TO TRANSFER MATERIALS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
18 Explain what your responsibilities are with regard to the reporting lines and procedures in your working area.			
19 Explain who are the appropriate people and what are their responsibilities within your working area.			

SPECIFIC UNIT REQUIREMENTS

Assessment criteria 1.1 and 1.2 should be observed and recorded over a period of time.

The use of simulation within a realistic working environment is acceptable for assessment criteria 1.11, 1.12, 1.13, 1.14 and 1.16.

Hints and tips

Make sure that you store equipment safely in the correct location when you have finished using it.

Unit 203 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points in this unit.
- Describe your own responsibilities for transferring materials at work.
- Identify how lifting and moving materials could be improved in your workplace.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

Signature of assessor:

Name of assessor:

Date:

Internal Verifier signature (if sampled):

Internal Verifier name:

Date:

External Verifier signature (if sampled):

External Verifier name:

Date:

Unit 204

Preparing for manufacturing operations

INTRODUCTION

To successfully complete this unit you will need to show that you have the skills and knowledge required to follow organisational procedures to prepare for manufacturing operations in your workplace.

Specifically you will need to:

- prepare your work area in readiness for manufacturing operations
- ensure that your tools and materials are correctly laid out
- keep your work area accessible for receiving and removing materials and ensure it is free from obstructions or potential hazards
- keep control of your preparation activities, making adjustments, keeping waste to a minimum and solving problems where appropriate
- ensure the equipment you use is kept clean and materials are removed and properly stored
- check that your tools and equipment are in a safe condition and are operating correctly
- check that you have sufficient materials available for the manufacturing operation
- correct any documentation, equipment, tools and/or materials that are incorrect, where you have the authority to do so, otherwise report it promptly to the appropriate person.

LEARNING OUTCOMES

1 **Prepare for manufacturing operations**

2 **Know how to prepare for manufacturing operations**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following terms in this unit.

Environmental regulations
Defra, the Department for Environment, Food and Rural Affairs, is responsible for setting legislation, policy, regulations and guidance for a range of environmental issues.

Job instructions
A step-by-step list of actions to be followed to complete a job.

Process plant
Equipment to be used in the manufacturing process.

Raw materials
A material or substance used in the primary manufacturing operation.

Unit 204 Preparing for manufacturing operations

OUTCOME ONE

PREPARE FOR MANUFACTURING OPERATIONS

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines.			
2 Follow the relevant preparation procedures and safety requirements to include **all** of the following: • health and safety and environmental regulations • safe working practices • job instructions • equipment/tool operating instructions • company standards and procedures.			
3 Obtain and follow the correct job instructions and any relevant preparation procedure specifications.			
4 Carry out work area preparations according to procedure specification and take account of any specific safety requirements.			
5 Prepare and maintain the work area, to include **all** of the following: • accessibility for receipt and removal of materials • freedom from obstructions and hazards • correct equipment and material layout.			

Continued on page 37

OUTCOME ONE continued

PREPARE FOR MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
6 Prepare the equipment for the manufacturing operations and check that it is in a safe and usable condition, to include **one** of the following: • machinery • process plant • tools – hand held and portable • material handling arrangements • equipment specific to the operation.			
7 When necessary, request replacement tools and equipment within the limits of your responsibility.			
8 Ensure that the materials are available, and they meet the specification for type, quantity and quality.			
9 Make available and check materials for manufacturing operations, to include **one** of the following: • production materials • consumable materials.			
10 Minimise any waste during preparation activities.			
11 Deal with problems in preparation in **two** of the following areas: • raw materials • documentation • tooling • equipment • work area.			

Continued on page 38

Hints and tips

Check out the Defra website: **ww2.defra.gov.uk.**

Unit 204 Preparing for manufacturing operations

What you could do

- Look around your workplace and check out what personal protective equipment is used during preparation activities.
- Talk to your supervisor or line manager about specific safety requirements that are essential when preparing for the manufacturing operation in your workplace.
- Do some internet research on environmental regulations that affect your industry.
- Ask your supervisor or line manager about the process for dealing with materials that are found to be unsuitable for planned operations.
- Obtain a copy of your organisation's standards and procedures for preparing for manufacturing operations.

OUTCOME ONE continued

PREPARE FOR MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
12 Resolve any problems with the preparation activity within the limits of your responsibility.			
13 Report any problems that you cannot solve or that are outside your permitted authority to the appropriate person, to include **two** of the following: • supervisor • team leader • maintenance personnel • quality control.			
14 Maintain a safe and organised work area at all times.			

OUTCOME TWO

KNOW HOW TO PREPARE FOR MANUFACTURING OPERATIONS

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the relevant health and safety requirements of the work area in which you are carrying out the preparation activities.			
2 Explain the specific safe working practices that need to be observed while carrying out the preparations.			

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OUTCOME TWO continued

KNOW HOW TO PREPARE FOR MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
3 Explain the hazards associated with carrying out the preparation activities and how they can be minimised.			
4 Explain what personal protective equipment needs to be used during the preparation activities and where it can be obtained.			
5 Explain how to obtain the necessary job instructions, equipment preparation procedures and how to interpret them.			
6 Explain how the work area needs to be laid out, and where tools and materials need to be positioned.			
7 Explain what material preparations may be required and how they will be carried out.			
8 Explain what preparation checks need to be taken on the tools and/or equipment that you will use.			
9 Explain what to do if your work area, equipment and/or materials are unsuitable for the planned operations.			
10 Explain the arrangements for the receiving and removal of materials and products.			
11 Explain what checks are needed to make sure materials meet the required specification.			

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Hints and tips

It is important to keep your work area free from obstructions to minimise the risk of trips and falls.

Unit 204 Preparing for manufacturing operations

Hints and tips

If a piece of equipment isn't working properly, don't use it until you have informed the appropriate person of the problem – otherwise you may do permanent damage.

OUTCOME TWO continued

KNOW HOW TO PREPARE FOR MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
12 Explain how to check that preparation is complete and correct.			
13 Explain what methods can be used to minimise waste during preparation activities.			
14 Explain the potential problems with carrying out preparation activities and how they can be avoided.			
15 Explain what problems can occur in preparation activities.			
16 Explain how to identify problems within preparation activities.			
17 Explain what actions you can take within the limits of your responsibility to solve the problems.			
18 Explain who to report unsolvable problems to, or problems that are not within the limits of your responsibility.			
19 Explain what documentation may need to be completed, and why it is important to complete it accurately.			
20 Explain what your personal responsibilities are with regard to health, safety and environmental issues.			
21 Explain who the appropriate people are and what their responsibilities are within your working area.			

SPECIFIC UNIT REQUIREMENTS

Assessment criteria 1.1, 1.2 and 1.14 should be observed and recorded over a period of time.

The use of simulation within a realistic working environment is acceptable for assessment criteria 1.11, 1.12 and 1.13.

Unit 204 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points of this unit.
- Describe the specific responsibilities that you have for preparing for manufacturing operations in your workplace.
- Identify the hazards associated with these responsibilities and how they might be minimised.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

Signature of assessor:

Name of assessor:

Date:

Internal Verifier signature (if sampled):

Internal Verifier name:

Date:

External Verifier signature (if sampled):

External Verifier name:

Date:

Unit 205

Concluding manufacturing operations

INTRODUCTION

To successfully complete this unit you will need to show that you have the skills and knowledge required to conclude manufacturing operations.

Specifically you will need to:

- stop the manufacturing operations by following your organisation's shutdown procedures
- control the shutdown of all operating systems and equipment in line with organisational procedures, making adjustments and minimising waste
- keep equipment clean and remove and store materials correctly
- leave your work area in a clean and tidy manner
- correct any incorrect documentation, equipment, tools and/or materials within the limits of your responsibility, otherwise promptly report it to the appropriate person
- work to instructions, with a minimum of supervision, taking personal responsibility for your actions and the quality of your work
- complete any documentation legibly and accurately
- demonstrate safe working practices.

LEARNING OUTCOMES

1 **Conclude manufacturing operations**

2 **Know how to conclude manufacturing operations**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following terms used in this unit.

Components
Parts that make up larger products.

Consumable materials
Disposable goods that are used up or discarded.

Health and safety regulations
These regulations are intended to place a duty on both employers and employees to make sure that the workplace is safe and suitable for the tasks being carried out.

Status
Position or current situation of a job or project.

Unit 205 Concluding manufacturing operations

Hints and tips

Try to visit other manufacturing environments and observe completion/ shutdown operations.

OUTCOME ONE

CONCLUDE MANUFACTURING OPERATIONS

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines.			
2 Follow relevant shutdown procedures and safety requirements, to include **all** of the following: • health and safety regulations • safe working practices • company procedures • job instructions • equipment shutdown instructions.			
3 Obtain and follow the correct job instructions and any relevant completion/shutdown procedure instructions.			
4 Stop the operations in accordance with job instructions and specified completion/shutdown procedures, and take account of any specific safety procedures.			
5 Close down equipment used in the manufacturing operations, to include **one** of the following: • machinery • process plant • tools (hand held and portable) • material handling arrangements • equipment specific to the operation.			
6 Make sure any related equipment is shut down to a safe condition in accordance with completion/ shutdown procedures.			

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OUTCOME ONE continued

CONCLUDE MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
7 Ensure equipment is clean for further use.			
8 Remove and store materials in a correct and safe manner.			
9 Deal appropriately with materials at completion of the manufacturing operations, to include the following: • finished products/components and **one** other type of material from the following: • production materials • surplus consumable materials • waste or scrap materials.			
10 Minimise any waste during completion/shutdown activities.			
11 Resolve any problems with the completion/shutdown activity within the limits of your responsibility.			
12 Report any problems that you cannot solve or that are outside your permitted authority to the appropriate person, to include **two** of the following: • supervisor • team leader • maintenance personnel • quality control.			
13 Maintain a safe and organised work area at all times.			
14 Report on status of completion/ shutdown of manufacturing operations.			

Continued on page 46

Unit 205 Concluding manufacturing operations

Hints and tips

Remember waste is not limited to spoiled products. There are eight types of recognised waste: overproduction, waiting, unnecessary motions, transporting, inappropriate processing, inventory, defects and untapped human potential.

OUTCOME ONE continued

CONCLUDE MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
15 Use the correct reporting procedure on completion of manufacturing operations for **one** of the following: • output • downtime • quality • maintenance requirements • scrap • work in progress.			
16 Confirm completion/shutdown is correct and complete according to defined procedures/instructions.			

OUTCOME TWO

KNOW HOW TO CONCLUDE MANUFACTURING OPERATIONS

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the relevant health and safety requirements of the work area in which you are carrying out the activities.			
2 Explain the specific safe working practices that need to be observed while carrying out the completion/ shut down activities.			
3 Explain the hazards associated with carrying out the completion/ shutdown activities and how they can be minimised.			

Continued on page 47

OUTCOME TWO continued

KNOW HOW TO CONCLUDE MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
4 Explain what personal protective equipment needs to be used during the completion/shutdown and cleaning activities and where it can be obtained.			
5 Explain what actions need to be taken in case of emergencies when shutting down machines or fully automated manufacturing operations.			
6 Explain how to obtain the necessary job instructions, equipment shutdown procedures and how to interpret them.			
7 Explain when in the manufacturing operation it is safe to shut down the equipment.			
8 Explain what completion checks need to be made.			
9 Explain the procedures for cleaning the equipment.			
10 Explain the procedures for storing and removing materials and waste.			
11 Explain what methods can be used to minimise waste during completion activities.			
12 Explain the potential problems with carrying out the completion activities and how they can be avoided.			
13 Explain what problems can occur in completion/shutdown activities.			

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What you could do

- Look around your workplace and identify how waste occurs during completion/ shutdown activities and make recommendations to minimise it.
- Do some internet research on health and safety legislation.
- Obtain a copy of your organisation's procedures for shutdown and safety requirements.
- Ask your supervisor or line manager about downtime and how it could be minimised.
- Talk to the quality control team about problems that occur during the shutdown process.

Unit 205 Concluding manufacturing operations

Hints and tips

It is important to make sure that, where instructed, equipment is disconnected from the power supply.

OUTCOME TWO continued

KNOW HOW TO CONCLUDE MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
14 Explain how to identify problems within completion/shutdown activities.			
15 Explain what actions you can take within the limits of your responsibility to solve these problems.			
16 Explain who to report unsolvable problems to, or problems that are not within the limits of your responsibility.			
17 Explain what documentation needs to be completed and why it is important to complete it accurately and legibly.			
18 Explain what your responsibilities are with regard to the reporting lines and procedures in your working area.			
19 Explain who the other appropriate people are and what their responsibilities are within your working area.			

SPECIFIC UNIT REQUIREMENTS

Assessment criteria 1.1, 1.2 and 1.13 should be observed and recorded over a period of time.

The use of simulation within a realistic working environment is acceptable for assessment criteria 1.4, 1.6, 1.11, 1.12, 1.14 and 1.15.

Unit 205 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points in this unit.
- Describe your specific responsibilities in concluding manufacturing operations.
- Identify how completion/shutdown procedures could be improved in your workplace.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

Signature of assessor:

Name of assessor:

Date:

Internal Verifier signature (if sampled):

Internal Verifier name:

Date:

External Verifier signature (if sampled):

External Verifier name:

Date:

Unit 207

Receiving and checking incoming materials

INTRODUCTION

To successfully complete this unit you will need to show that you have the skills and knowledge required to receive and check incoming materials into the workplace.

Specifically you will need to:

- prepare your work area in readiness for receiving materials
- keep your work area accessible for receiving and removing materials and ensure it is free from obstructions or potential hazards
- check that materials conform to relevant specifications and that there are sufficient materials available for the operation to be performed
- correct any incorrect documentation, equipment, tools and/or materials within the limits of your responsibility, otherwise promptly report it to the appropriate person
- comply with organisational policy and procedures for the receipt of materials
- report any problems you cannot personally resolve
- work to instructions, with a minimum of supervision, taking personal responsibility for your actions and the quality of your work
- complete any necessary documentation accurately and legibly.

LEARNING OUTCOMES

1 **Receive and check incoming materials**

2 **Know how to receive and check incoming materials**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following terms used in this unit.

Documentation
Written information on incoming materials.

Hazardous materials
Materials with properties that make them potentially harmful to human health or the environment.

Incoming materials
Materials received into your workplace to enable the manufacturing operation to proceed.

Work area
The immediate area where you perform manufacturing operations.

Unit 207 Receiving and checking incoming materials

Hints and tips

Check out supply chain purchasing on the internet.

OUTCOME ONE

RECEIVE AND CHECK INCOMING MATERIALS

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines.			
2 Follow relevant procedures and safety requirements for the receipt of the materials, to include **all** of the following: • health and safety and environmental regulations • safe working practices • company procedures • job instructions.			
3 Obtain and follow the correct job instructions and any relevant material specifications.			
4 Carry out work area preparations for the receipt of the incoming materials according to specified procedures.			
5 Prepare and maintain the work area, to include all of the following: • accessibility for receipt and removal of materials • freedom from obstructions and hazards • correct material layout.			
6 Make sure that you take account of any additional safety requirements specific to incoming materials.			
7 Carry out receipt of the incoming materials according to specified operating procedures.			

Continued on page 53

OUTCOME ONE continued

RECEIVE AND CHECK INCOMING MATERIALS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
8 Receive materials for manufacturing operations, to include **one** of the following: • production materials • consumable materials • hazardous materials.			
9 Confirm that the materials meet the specification for type, quantity and quality.			
10 Resolve any problems that are within the limits of your responsibility in **two** of the following areas: • material quantity • material quality • delivery time of material • work area • location of material.			
11 Report any problems that you cannot solve or that are outside your permitted authority to the appropriate person, to include **one** of the following: • supervisor/manager • team leader • quality control.			
12 Maintain a safe and organised work area at all times.			
13 Confirm materials are correct and complete.			
14 Complete documentation accurately and legibly.			

Hints and tips

Make sure that you check all incoming materials thoroughly if you are asked to sign for them, as once you have signed for somthing you may be held responsible for it.

Unit 207 Receiving and checking incoming materials

What you could do

- Obtain and read a copy of your organisation's procedures and safety requirements for the receipt of materials.
- Do some internet research on moving and handling materials.
- Obtain and read a copy of your organisation's policy for dealing with damaged materials received into your workplace.
- Look around your workplace and identify safe working practices.
- Talk to your supervisor or line manager about job instructions and how they are produced.

OUTCOME TWO

KNOW HOW TO RECEIVE AND CHECK INCOMING MATERIALS

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the relevant health and safety requirements of the work area in which you are carrying out the receipt of the materials.			
2 Explain the specific safe working practices that need to be observed while carrying out the receipt of materials.			
3 Explain the hazards associated with carrying out the receipt of the materials and how they can be minimised.			
4 Explain what personal protective equipment needs to be used and where can it be obtained.			
5 Explain how to obtain the necessary job instructions, material specifications and preparation procedures and how to interpret them.			
6 Explain how the work area needs to be laid out, in readiness for the receipt of the materials.			
7 Explain what the arrangements are for receiving the materials.			
8 Explain what checks are needed to make sure materials meet the required specification.			
9 Explain what methods can be used to minimise waste during receipt of materials.			

Continued on page 55

OUTCOME TWO continued

KNOW HOW TO RECEIVE AND CHECK INCOMING MATERIALS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
10 Explain the potential problems with carrying out the receipt of materials and how they can be avoided.			
11 Explain what problems can occur in receiving materials.			
12 Explain how to identify problems with receiving materials.			
13 Explain what to do if the materials are not to the required specification or are damaged or unsuitable for the planned production operations.			
14 Explain what actions you can take within the limits of your responsibility to solve problems.			
15 Explain who to report unsolvable problems to, or problems that are not within the limits of your responsibility.			
16 Explain what your responsibilities are with regard to the reporting lines and procedures in your working area.			
17 Explain who the appropriate people are and what their responsibilities are within your working area.			

SPECIFIC UNIT REQUIREMENTS

Assessment criteria 1.1, 1.2 and 1.12 should be observed and recorded over a period of time.

The use of simulation within a realistic working environment is acceptable for assessment criteria 1.10, 1.11 and 1.14.

Hints and tips

It is important to practise safe lifting skills when taking receipt of materials.

Unit 207 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points in this unit.
- Describe your own responsibilities for receiving and checking incoming materials.
- Identify how receiving and checking incoming materials could be improved in your workplace.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

Signature of assessor:

Name of assessor:

Date:

Internal Verifier signature (if sampled):

Internal Verifier name:

Date:

External Verifier signature (if sampled):

External Verifier name:

Date:

Unit 209

Producing products by assembly operations

INTRODUCTION

To successfully complete this unit you will need to show that you have the skills and knowledge required to carry out product assembly operations.

Specifically you will need to:

- carry out the assembly operation in line with your organisation's operating procedures
- monitor and control assembly operations in your workplace
- meet production targets
- ensure your performance records show consistent and satisfactory performance
- report any problems with the assembly activities that you cannot personally resolve to the appropriate person
- work to instructions, with a minimum of supervision, taking personal responsibility for your actions and the quality of your work
- complete any necessary documentation accurately and legibly.

LEARNING OUTCOMES

1 **Produce products by assembly operations**

2 **Know how to produce products by assembly operations**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following terms used in this unit.

Assembly
The putting together of component parts to produce a finished product.

Correct orientation
The correct positioning of components.

Manually operated
Operated by a person rather than a machine or a computer.

Output
Productivity, or the number of products assembled.

Unit 209 Producing products by assembly operation

What you could do

- Obtain and read a copy of your organisation's assembly procedures and safety requirements.
- Do some internet research on types of assembly operations, for example hand assembly, manually operated, fully automated and combined assembly operations.
- Obtain and read a copy of your organisation's policy on dealing with waste during assembly operations.
- Look around your workplace and identify what documentation is required at each stage of the assembly process. Report on why it is needed and by which department.
- Talk to your organisation's quality representative about typical production faults and how they could be minimised.

OUTCOME ONE

PRODUCE PRODUCTS BY ASSEMBLY OPERATIONS

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines.			
2 Follow the relevant assembly procedures and safety requirements according to **all** of the following: • health and safety regulations • safe working practices • assembly instructions • assembly equipment / tool operating instructions • company standards and procedures.			
3 Obtain and follow the correct job instructions and any relevant assembly procedure and quality specifications.			
4 Check that you have all the necessary components and that they are undamaged and in a usable condition.			
5 Position and align the components correctly.			
6 Secure the components in position using the specified fastening device/ method.			
7 Use appropriate tools, equipment and materials during the assembly operations.			

Continued on page 59

OUTCOME ONE continued

PRODUCE PRODUCTS BY ASSEMBLY OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
8 Carry out assembly operations using **one** of the following methods: • hand assembly operations • manually operated machine assembly operations • fully automated assembly operations • combined assembly operations.			
9 Monitor and control the assembly operation and identify any faults/ variations/problems that occur.			
10 Make permitted adjustments to solve production faults, variations or problems related to **two** of the following: • quality • accuracy • material utilisation • operational safety • productivity • manufacturing changes.			
11 Report any problems that you cannot solve or that are outside your permitted authority to the appropriate person, to include **one** of the following: • supervisor • quality control • team leader.			
12 Produce assembled product/s which comply with the specification and quality requirements.			

Continued on page 60

Hints and tips

Look at other assembled products and consider the assembly procedure involved in creating them.

Unit 209 Producing products by assembly operation

Hints and tips

Make sure that you know what the production targets are for each assembly operation.

OUTCOME ONE continued

PRODUCE PRODUCTS BY ASSEMBLY OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
13 Carry out checks of the assembly to include the following: • completeness of the assembly and **three** other checks from the following: • positional accuracy of components • correct orientation of components • component alignment • component security • freedom from damage or foreign objects • volume/quantity.			
14 Work to achieve your production targets for **both** of the following: • output • quality.			
15 Deal appropriately with finished assemblies and complete any necessary documentation accurately and legibly.			

OUTCOME TWO

KNOW HOW TO PRODUCE PRODUCTS BY ASSEMBLY OPERATIONS

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the relevant health and safety requirements of the work area in which you are carrying out the assembly operations.			
2 Explain the specific safe working practices, assembly procedures and environmental regulations that need to be observed.			
3 Explain the hazards associated with carrying out the assembly operations and how they can be minimised.			
4 Explain what actions need to be taken in case of emergencies.			
5 Explain what personal protective equipment needs to be used during the assembly activities and where can it be obtained.			
6 Explain how to obtain the necessary job instructions, operating procedures and assembly specifications that are used, and how to interpret them.			
7 Explain what tools and equipment are used for the assembly operation and how to check that they are in a safe and usable condition.			
8 Explain the specific assembly operations to be performed.			

Continued on page 62

Unit 209 Producing products by assembly operation

Hints and tips

It is important to know the job roles of everyone in your workplace so that if you have a problem you know the correct person to refer it to.

OUTCOME TWO continued

KNOW HOW TO PRODUCE PRODUCTS BY ASSEMBLY OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
9 Explain why it is important to follow the specified assembly sequence and procedure at all times.			
10 Explain what methods are used to align and position the components prior to fixing them into position.			
11 Explain what methods are used to fix the components securely in position.			
12 Explain what methods can be used to minimise waste during the assembly operation.			
13 Explain how to monitor the quality of the assembly and identify any variations from the specification.			
14 Explain how to check the quality of the assembly, against the required quality standards and what tools and equipment are used.			
15 Explain what fault, problems or variations can occur in the assembly operation.			
16 Explain how to identify the faults, problems or variations in the assembly operation.			
17 Explain what allowable adjustments you can make to achieve the required outcome.			
18 Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly.			

Continued on page 63

OUTCOME TWO continued

KNOW HOW TO PRODUCE PRODUCTS BY ASSEMBLY OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
19 Explain what your responsibilities are with regard to the reporting lines and procedures in your working area.			
20 Explain who the appropriate people are and what their responsibilities are within your working area.			

SPECIFIC UNIT REQUIREMENTS

Assessment criteria 1.1 and 1.2 should be observed and recorded over a period of time.

The use of simulation within a realistic working environment is acceptable for assessment criteria 1.9, 1.10, 1.11 and 1.15.

Unit 209 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points in this unit.
- Describe your own responsibilities for using assembly operations to produce products.
- Identify how assembly operations could be improved in your workplace.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

Signature of assessor:

Name of assessor:

Date:

Internal Verifier signature (if sampled):

Internal Verifier name:

Date:

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External Verifier name:

Date:

Unit 211

Producing products by processing

INTRODUCTION

To successfully complete this unit you will need to show that you have the skills and knowledge required to carry out processing operations on materials or products using a pre-defined sequence of events that will change the physical appearance or properties of the material or product.

Specifically you will need to:

- monitor and control the processing operation, minimising any waste, and making adjustments within the limits of your permitted authority
- ensure that completed components are to the required specification
- meet production targets
- comply with organisational policy and procedures for the processing activities undertaken
- report any problems you cannot personally resolve
- work to instructions, with a minimum of supervision, taking personal responsibility for your actions and the quality of your work
- complete any necessary documentation accurately and legibly.

LEARNING OUTCOMES

1 **Produce products by processing**

2 **Know how to produce products by processing**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following terms used in this unit.

Freedom from contamination
Where a product has no faults or defects.

Fully automated
This is where the task is fully completed by a machine.

Permitted adjustments
Changes or differences to the specification that are acceptable.

Pre-defined sequence of events
This is where the process has already been decided.

Unit 211 Producing products by processing

Hints and tips

Take some photographs, for your portfolio, of processed products.

OUTCOME ONE

PRODUCE PRODUCTS BY PROCESSING

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines.			
2 Follow the relevant processing procedures and safety requirements, to include **all** of the following: • health and safety regulations • safe working practices • job instructions • processing equipment/tool operating instructions • company standards and procedures.			
3 Obtain and follow the correct job instructions and any relevant processing procedure and quality specifications.			
4 Follow the pre-defined sequence of events at all times.			
5 Use the correct tools, equipment and materials to further the process.			
6 Perform processing operations using **one** of the following methods: • hand processing operations • manually operated machine processing operations • fully automated machine processing operations • combined processing operations.			

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OUTCOME ONE continued

PRODUCE PRODUCTS BY PROCESSING

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
7 Perform the processing operation according to instructions and safe operating procedures.			
8 Monitor and control the processing operation and identify any faults, variations or problems that occur.			
9 Make permitted adjustments to solve production faults, variations or problems related to **two** of the following: • quality • accuracy • material utilisation • operational safety • manufacturing changes • productivity.			
10 Report any problems that you cannot solve or are outside your permitted authority to the appropriate person, to include **one** of the following: • supervisor • team leader • quality control.			
11 Minimise any waste during the processing operation.			
12 Produce processed products which comply with the processing specification and quality requirements.			

Continued on page 68

Hints and tips

Check out what the accepted quality tolerances are for the products you produce.

Unit 211 Producing products by processing

What you could do

- Obtain and read a copy of your organisation's instructions for performing process operations.
- Do some internet research on production processing.
- Obtain and read a copy of your organisation's procedures for dealing with faults, variations and problems within the processing operation.
- Look around your workplace and identify the quality criteria used for your processed products.
- Speak with your supervisor/line manager and colleagues about good practice in your workplace. Write a brief report on your findings.

OUTCOME ONE continued

PRODUCE PRODUCTS BY PROCESSING

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
13 Carry out checks of the processed products to include the following: • completeness of processing operations and **two** other checks from the following: • appearance of product • freedom from contamination • quantity • volume.			
14 Work to achieve your production targets for **both** of the following: • output • quality.			
15 Complete any necessary documentation accurately and legibly.			

OUTCOME TWO

KNOW HOW TO PRODUCE PRODUCTS BY PROCESSING

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the relevant health and safety requirements of the work area in which you are carrying out the processing operations.			
2 Explain the specific safe working practices, processing procedures and environmental regulations that need to be observed.			
3 Explain the hazards associated with carrying out the processing operations and how they can be minimised.			
4 Explain what actions need to be taken in case of emergencies.			
5 Explain what personal protective equipment needs to be used during the processing activities and where can it be obtained.			
6 Explain how to obtain the necessary job instructions, operating procedures and processing specifications that are used, and how to interpret them.			
7 Explain what tools and equipment are used for the processing operations undertaken and how to check that they are in a safe and usable condition.			
8 Explain why it is important to follow the pre-determined sequence of events in the processing operation.			

Continued on page 70

Unit 211 Producing products by processing

Hints and tips

Be sure to check out your organisation's emergency procedures so that you know what to do if an accident occurs during production.

OUTCOME TWO continued

KNOW HOW TO PRODUCE PRODUCTS BY PROCESSING

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
9 Explain the consequences of not following the pre-determined sequence of events in the processing operation.			
10 Explain the specific processing operations to be performed.			
11 Explain how to perform the processing operation to achieve the required specification.			
12 Explain what methods can be used to minimise waste during processing operations.			
13 Explain what faults, problems or variations can occur in the processing operation.			
14 Explain how to identify faults, problems or variations in the processing operation.			
15 Explain what allowable adjustments you can make to achieve specification in the processing operation.			
16 Explain why it is important to report faults, variations or problems that are outside your permitted authority or that you cannot solve immediately.			
17 Explain how to monitor and check the quality of the processed products, against the required quality standards.			

Continued on page 71

OUTCOME TWO continued

KNOW HOW TO PRODUCE PRODUCTS BY PROCESSING

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
18 Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly.			
19 Explain what your responsibilities are with regard to the reporting lines and procedures in your working area.			
20 Explain who the appropriate people are and what their responsibilities are within your working area.			

SPECIFIC UNIT REQUIREMENTS

Assessment criteria 1.1, 1.2 and 1.4 should be observed and recorded over a period of time.

The use of simulation within a realistic working environment is acceptable for assessment criteria 1.8, 1.9, 1.10 and 1.15.

Unit 211 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points in this unit.
- Describe your own responsibilities for producing products by processing.
- Identify how the processing operation could be improved in your workplace.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

Signature of assessor:

Name of assessor:

Date:

Internal Verifier signature (if sampled):

Internal Verifier name:

Date:

External Verifier signature (if sampled):

External Verifier name:

Date:

Unit 218

Controlling manufacturing operations

INTRODUCTION

To successfully complete this unit you will need to show that you have the skills and knowledge required to control manufacturing operations.

Specifically you will need to:

- gather data that accurately reflects the condition of the manufacturing process
- interpret the data to identify any trends, variance or discrepancies
- make any adjustments allowable within the limits of your responsibility to restore operating parameters
- comply with organisational policy and procedures for all activities undertaken
- work with a minimum of supervision, taking personal responsibility for your actions and the quality and accuracy of the work that you produce
- complete any necessary documentation accurately and legibly
- demonstrate safe working practices throughout.

LEARNING OUTCOMES

1 **Control manufacturing operations**

2 **Know how to control manufacturing operations**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following terms used in this unit.

Combined manufacturing operations
Where the manufacturing operation uses a combination of hand, manual and fully automated production methods.

Dimensional accuracy
The accuracy of the height and/or width and/or length.

Discrepancies
Distinct differences between what is expected and what data identifies as the current situation.

Trends
A re-occurring theme in the manufacturing operation.

Unit 218 Controlling manufacturing operations

Hints and tips

Ask a colleague for a witness statement that reflects how you have dealt with a problem within the manufacturing process.

OUTCOME ONE

CONTROL MANUFACTURING OPERATIONS

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines.			
2 Follow the relevant procedures and safety requirements to include **all** of the following: • health and safety and environmental regulations • safe working practices • job instructions • equipment/tool operating instructions • company standards and procedures.			
3 Obtain and follow the correct job instructions and any relevant production and quality specifications.			
4 Collect data in relation to **one** of the following production methods: • hand manufacturing operations • manually operated machine operations • fully automated machine operations • combined manufacturing operations.			

Continued on page 75

OUTCOME ONE continued

CONTROL MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
5 Collect data which reflects the condition of the manufacturing process, to include **three** of the following: • quality of finished product • dimensional accuracy • raw material use • consumable material use • machinery condition • equipment or tool condition • output/production targets.			
6 Collect up-to-date, comprehensive and accurate operational data in line with production requirements.			
7 Record the data in the required format accurately and legibly.			
8 Use the data collected to make decisions about the condition of the manufacturing process.			
9 Deal with **two** of the following problems identified by the data collected: • trends • variation from specification • discrepancies.			
10 Deal with problems within the manufacturing process by **both** of the following methods: • by taking action yourself • by reporting the problem to someone else.			

Continued on page 76

Unit 218 Controlling manufacturing operations

Hints and tips

Find out what the difference is between data and information.

OUTCOME ONE continued

CONTROL MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
11 Make any allowable adjustments to the operating parameters to ensure the production output meets the specification requirements.			
12 Make adjustments in relation to **three** of the following: • process effectiveness relating to operational sequence • process effectiveness relating to production time • process characteristics relating to quality • process characteristics relating to accuracy • material utilisation relating to production • materials utilisation relating to consumables • manufacturing programme changes • operational safety.			
13 Seek authorisation from the appropriate person for any adjustments to operating parameters which are outside the limits of your responsibility.			
14 Check that production continues to comply with specification following any adjustments made.			

OUTCOME TWO

KNOW HOW TO CONTROL MANUFACTURING OPERATIONS

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the relevant health and safety requirements of the work area in which you are carrying out the manufacturing activities.			
2 Explain the specific safe working practices, data collection and adjustment procedures and environmental regulations that need to be observed.			
3 Explain the hazards associated with carrying out the data collection and equipment adjustment procedures and how they can be minimised.			
4 Explain what actions need to be taken in case of emergencies.			
5 Explain what personal protective equipment needs to be used during the activities and where it can be obtained.			
6 Explain how to obtain the necessary job instructions, equipment operating and adjustment procedures and quality control specifications that are used, and how to interpret and understand them.			
7 Describe the type of production data which will provide information about the various aspects of the manufacturing operation.			
8 Explain how to collect the required data and how it is to be used and recorded.			

Continued on page 78

What you could do

- Obtain and read a copy of your organisation's operating procedures related to controlling manufacturing operations.
- Do some internet research on Takt time.
- Ask your supervisor/ line manager about the use of data from manufacturing operations.
- Look around your workplace and identify how production targets are recorded and how effectively they are met.
- Talk to your supervisor/line manager about problems that occur within the manufacturing process and what could be done to help address them.

Unit 218 Controlling manufacturing operations

OUTCOME TWO continued

KNOW HOW TO CONTROL MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
9 Explain how to check and interpret data relating to manufacturing operations.			
10 Explain why it is important to maintain the security of the information collected.			
11 Describe the potential problems with the data collected such as trends, variance or discrepancy, how these occur and how to correct them.			
12 Explain how to deal with problems which affect aspects of data collection, data interpretation and adjustments to manufacturing operations.			
13 Describe the adjustments that can be made to manufacturing operations, equipment and tools, materials and manufacturing programme and the procedures involved.			
14 Describe the various process operating parameters on the equipment used and how adjustments to these will affect the manufacturing output.			
15 Explain why it is important to follow the specified adjustment sequence and procedure at all times.			
16 Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly.			

Continued on page 79

OUTCOME TWO continued

KNOW HOW TO CONTROL MANUFACTURING OPERATIONS

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
17 Explain how to report any problems you are not able to deal with yourself and why it is important to report faults, variations or problems immediately.			
18 Explain what your responsibilities are with regard to the reporting lines and procedures in your working area.			
19 Explain who the appropriate people are and what their responsibilities are within your working area.			

SPECIFIC UNIT REQUIREMENTS

Assessment criteria 1.1 and 1.2 should be observed and recorded over a period of time.

The use of simulation within a realistic working environment is acceptable for assessment criteria 1.11, 1.12, 1.13 and 1.14.

Hints and tips

Be sure you know what the allowable adjustments are to the manufacturing process.

Unit 218 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points in this unit.
- Describe your own responsibilities for controlling manufacturing operations.
- Identify how controlling manufacturing operations could be improved in your workplace.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

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Signature of assessor:

Name of assessor:

Date:

Internal Verifier signature (if sampled):

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Date:

External Verifier signature (if sampled):

External Verifier name:

Date:

Unit 219

Contributing to improving effectiveness in the workplace

INTRODUCTION

To successfully complete this unit you will need to show that you have the skills and knowledge required to contribute to improving effectiveness within a manufacturing environment.

Specifically you will need to:

- work effectively in relation to your own and others' work and inform others of any delay which may affect your work
- review your objectives and targets for your personal development to ensure that your skills and knowledge match those required for your job role
- deal with problems that affect the manufacturing process
- contribute to and communicate any opportunities for improvement that could be made to working practices and procedures
- comply with organisational policy and procedures
- report to the appropriate person any problems with the personal development activities, problem solving or improvement activities that you cannot resolve
- take responsibility for your own actions and the work you carry out
- demonstrate safe working practices throughout.

LEARNING OUTCOMES

1 **Contribute to improving effectiveness in the workplace**

2 **Know how to contribute to improving effectiveness in the workplace**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following terms used in this unit.

Multi-skilling
Being trained to carry out a range of different jobs in your workplace.

Plant
The equipment needed to carry out the manufacturing process.

Visual aids
Illustrative materials such as pictures, graphs and charts.

Working practices
The ways in which activities are carried out in your workplace.

Unit 219 Contributing to improving effectiveness in the workplace

Hints and tips

Check out **The New Lean Toolbox** by John Bicheno. This book will provide you with a basic guide to the continuous improvement tools and techniques that can be used in any workplace.

OUTCOME ONE

CONTRIBUTE TO IMPROVING EFFECTIVENESS IN THE WORKPLACE

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Work safely at all times, complying with health and safety and other relevant regulations and guidelines.			
2 Work in a way which is effective in relation to your own work and the work of colleagues within the organisation.			
3 Work effectively with colleagues, to include **three** of the following: • colleagues in same work group • colleagues in other work groups • immediate supervision/line management • personnel in other departments • external contacts • those for whom you have responsibility.			
4 Make sure that any actions that you take are within the limits of your own responsibility and authority.			
5 Contribute to reviewing your personal training and development as is appropriate to the job role.			

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OUTCOME ONE continued

CONTRIBUTE TO IMPROVING EFFECTIVENESS IN THE WORKPLACE

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
6 Review personal development objectives and targets to include **one** of the following: • dual or multi-skilling • training on new equipment/ technology • increased responsibility • understanding of company working practices, procedures, plans and policies • other specific requirements.			
7 Deal promptly and effectively with problems within your responsibility.			
8 Deal with problems affecting the manufacturing process, to include **three** of the following: • materials • tools and equipment • machinery or plant • drawings/specifications • job instructions • production quality • production output/timescales • people • safety • activities or procedures.			
9 Report problems that you cannot resolve or that are not your responsibility.			
10 Identify any opportunities for improvements to working practices and procedures.			

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Unit 219 Contributing to improving effectiveness in the workplace

What you could do

- Look around your workplace and identify where improvements could be made to working practices.
- Do some internet research on continuous improvement techniques.
- Obtain and read a copy of your organisation's quality procedures.
- Talk to the person with overall responsibility for quality improvements in your workplace about the implementation process.
- Do some internet research on workplace organisation techniques, such as 5S or 5C, and write a brief report on how they would benefit your workplace.

OUTCOME ONE continued

CONTRIBUTE TO IMPROVING EFFECTIVENESS IN THE WORKPLACE

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
11 Contribute to organisational procedures for identifying opportunities for improvement to **one** of the following: • working practices • working methods • quality • safety • tools and equipment • suppliers • internal communication • customer service • training and development • teamwork • other.			
12 Share any suggestions for improving working practices and procedures with others using the appropriate method.			
13 Present ideas for potential improvements using **two** of the following methods: • orally • written • electronic • visually aided.			

OUTCOME TWO

KNOW HOW TO CONTRIBUTE TO IMPROVING EFFECTIVENESS IN THE WORKPLACE

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the relevant health and safety requirements and guidelines associated with your role within the workplace.			
2 Explain how to obtain and correctly use any equipment used to protect the health and safety of yourself and your colleagues.			
3 Explain what factors within the workplace affect effectiveness and why it is important to work effectively.			
4 Explain the potential difficulties and delays which may affect your work and who else may also be affected by them.			
5 Explain how to communicate information, difficulties and ideas to colleagues in the appropriate way.			
6 Explain why it is important to contribute to your own personal development.			
7 Explain the benefits of continuous personal development.			
8 Explain what training opportunities are available in the workplace.			
9 Explain why it is important to review training and development objectives.			
10 Explain who to discuss training and development issues with.			

Continued on page 86

Hints and tips

Regularly review your own performance to help you to identify where you need to develop.

Unit 219 Contributing to improving effectiveness in the workplace

Hints and tips

Check out what the difference is between effectiveness and efficiency.

OUTCOME TWO continued

KNOW HOW TO CONTRIBUTE TO IMPROVING EFFECTIVENESS IN THE WORKPLACE

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
11 Explain the procedures for dealing with and reporting problems that affect the manufacturing process.			
12 Explain the types of problems that occur in the manufacturing process undertaken and how they can be avoided.			
13 Explain what techniques can be used to help solve problems.			
14 Explain who to refer to if you have problems that you cannot resolve.			
15 Explain why it is important to suggest ways in which you think improvements to working practices may be made.			
16 Explain how to identify and define improvement opportunities.			
17 Explain the procedure for making suggestions for improvements.			
18 Explain how the suggestions need to be made (such as verbally, in writing, formally or informally).			
19 Explain the benefits to yourself and the organisation if improvements can be identified.			
20 Explain how to use the data and information available to you to communicate your ideas effectively to others.			

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OUTCOME TWO continued

KNOW HOW TO CONTRIBUTE TO IMPROVING EFFECTIVENESS IN THE WORKPLACE

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
21 Explain what your responsibilities are with regard to the reporting lines and procedures in your working area.			
22 Explain who the appropriate people are and what their responsibilities are within your working area.			

SPECIFIC UNIT REQUIREMENTS

Assessment criteria 1.1 should be observed and recorded over a period of time.

The use of simulation within a realistic working environment is acceptable for assessment criteria 1.7, 1.8, 1.9, 1.10, 1.11 and 1.12.

Unit 219 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points in this unit.
- Describe your own responsibilities for identifying and implementing improvements at work.
- Suggest how the process of contributing to improving effectiveness in your workplace could be improved.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

Signature of assessor:

Name of assessor:

Date:

Internal Verifier signature (if sampled):

Internal Verifier name:

Date:

External Verifier signature (if sampled):

External Verifier name:

Date:

Unit 221

Contributing to effective team working

INTRODUCTION

To successfully complete this unit you will need to show that you have the skills and knowledge required to work effectively as a team member within a manufacturing environment.

Specifically you will need to:

- establish and maintain productive working relationships and deal with disagreements in an amicable and constructive way
- contribute to team activities by providing ideas and solutions and find ways of resolving issues that cause concern and/or disagreement
- keep others informed about your work plans or activities that affect them
- comply with organisational policy and procedures for the activities undertaken
- report any problems you cannot personally resolve
- take personal responsibility for your actions and the quality and accuracy of your work.

LEARNING OUTCOMES

1 **Contribute to effective team working**

2 **Know how to contribute to effective team working**

Performance evidence must be the main form of evidence gathered. You are required to provide THREE pieces of evidence that demonstrate your competence for the criteria in outcome one and ONE piece of evidence to show your essential knowledge for the criteria in outcome two.

Jargon buster

You will find the following terms used in this unit.

Action plan
A timetable that sets out clearly defined steps of actions that will enable you to achieve your goals.

Brainstorming
A technique designed to generate a large number of ideas for the solution of a problem.

Key Performance Indicators (KPIs)
Quantifiable measurements that are used to track the progress in achieving important goals within the workplace.

Team briefings
Often referred to as toolbox talks, there are short, daily discussions or presentations by supervisors to their team.

Unit 221 Contributing to effective team working

OUTCOME ONE

CONTRIBUTE TO EFFECTIVE TEAM WORKING

You are required to provide THREE pieces of evidence that demonstrate your competence in each criteria.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Present yourself in the workplace on time and in a way that does not cause concern to other team members.			
2 Develop and maintain team working relationships with **two** of the following: • immediate supervision/line management • colleagues in same work group • colleagues in other work groups • those for whom you have responsibility • personnel in other departments • external contacts.			
3 Work in accordance with the roles and responsibilities identified for your individual and team activities.			
4 Make sure that any actions that you take are within the limits of your own responsibility and authority.			
5 Ask for information, advice and/or help politely, without causing disruption to your own or other team members' work.			
6 Offer help to others promptly and willingly in order to ensure team objectives are met.			

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OUTCOME ONE continued

CONTRIBUTE TO EFFECTIVE TEAM WORKING

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
7 Contribute to team discussion/ briefing sessions in a positive manner that shows respect for the views and rights of others.			
8 Deal with problems in team relationships in ways which minimise offence and maintain mutual respect.			
9 Discuss problems which may affect team relationships with the appropriate person, to include **two** of the following: • other team members • team leader • immediate line manager • personnel or welfare officer.			
10 Refer requests for information and/ or assistance that are outside your authority/responsibility to the appropriate people.			
11 Work together to resolve disagreements and difficulties in team relationships.			
12 Communicate orally with team members by **two** of the following methods: • team briefings • question and answer sessions • group discussions • problem resolution processes.			

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Hints and tips

John Adair in **Effective Teambuilding** writes that 'The joy of working harmoniously with small groups of people who are dedicated to something bigger than themselves, and are completely loyal to each other, counts in my experience as one of the most rewarding things in life.'
Talk to your colleagues about team working and write a brief report on how their opinions differ from Adair's.

Unit 221 Contributing to effective team working

Hints and tips

Identify what the benefits of effective team work are and share this information with your team.

OUTCOME ONE continued

CONTRIBUTE TO EFFECTIVE TEAM WORKING

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
13 Communicate in writing or electronically, to include using **one** of the following methods: • adding ideas and actions to team boards • maintaining up-to-date key performance/production indicators • processing information • communicating via email/internal network services.			
14 Communicate in a manner which promotes understanding, goodwill and trust.			

OUTCOME TWO

KNOW HOW TO CONTRIBUTE TO EFFECTIVE TEAM WORKING

You are required to demonstrate competence in each criteria on at least ONE occasion.

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
1 Describe the statutory regulations that can affect working relationships, ie disability, equal opportunities, discrimination, harassment.			
2 Explain why it is important to create and maintain good team working relationships.			
3 Explain the sort of things that might affect good team working relationships.			

Continued on page 93

OUTCOME TWO continued

KNOW HOW TO CONTRIBUTE TO EFFECTIVE TEAM WORKING

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
4 Explain why it is important to present yourself in the workplace on time and ready for work.			
5 Explain the methods that can be used to establish and maintain good team working relationships.			
6 Explain the methods of handling and resolving difficulties in team working relationships.			
7 Explain how to use data and team information to help resolve concerns and disagreements.			
8 Explain why it is important to resolve difficulties or misunderstandings quickly and not let them develop into more serious problems.			
9 Explain why it is important to share your knowledge and information and your performance measures with other people in your team and with other groups.			
10 Explain how to use the data and information available to you to communicate your performances effectively to others.			
11 Explain what types of information and data are available in your area such as key performance measures, production targets, quality, scrap ratios, problem resolution processes, action planning brainstorming and continuous improvement processes.			

Continued on page 94

What you could do

- Look around your workplace at how your team currently works together.
- Do some internet research on effective team working.
- Talk to your supervisor/line manager about techniques used to further effective team working in your organisation.
- Write down a list of actions that would help to improve how your team currently works together.
- Gather information from your workplace that is currently used to communicate information to your team.

Unit 221 Contributing to effective team working

Hints and tips

Try to use the following four-step model for resolving conflict:

1 Seek to understand the other person's point of view.

2 Decide what you both want to achieve from the solution.

3 Explore the possible solutions.

4 Agree a solution that promotes positive feelings and minimises negative feelings from both people.

OUTCOME TWO continued

KNOW HOW TO CONTRIBUTE TO EFFECTIVE TEAM WORKING

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
12 Explain what mixture of skills and experience is available in your team to support you or the manufacturing process when problems occur (such as a team skills matrix).			
13 Explain why you need to keep other team members involved in or informed of any plans or activities you may be doing.			
14 Explain what type of support or assistance you might need from other team members.			
15 Explain why it is important to request help from other team members in a polite and timely manner and to offer assistance to them when help is needed.			
16 Explain why it is important to show respect for the views, rights and property of other team members.			
17 Explain how asking for help or assistance at inappropriate times can lead to disruption and problems within the team.			
18 Describe the methods used in your area for effective communication (such as team briefings covering team performance, quality, cost and delivery issues, general information, personnel issues and action plans).			
19 Explain who to refer to with requests that are not within the limits of your responsibility.			

Continued on page 95

OUTCOME TWO continued

KNOW HOW TO CONTRIBUTE TO EFFECTIVE TEAM WORKING

Performance evidence required You must be able to:	Evidence reference number	Evidence reference number	Evidence reference number
20 Explain who to refer to if you have problems with team relationships that you cannot resolve.			
21 Explain what your responsibilities are with regard to the reporting lines and procedures in your working area.			
22 Explain who the appropriate people are and what their responsibilities are within your working area.			

SPECIFIC UNIT REQUIREMENTS

The use of simulation within a realistic working environment is acceptable for assessment criteria 1.10, 1.11, 1.12, 1.13 and 1.14.

Unit 221 Sign-off

Reflective questions

Now that you have completed the unit, think about the following.

- List the key learning points in this unit.
- Explain why it is important to contribute to effective team working.
- Identify how team working could be improved in your organisation.

CANDIDATE DECLARATION

I confirm that all the evidence submitted for this qualification is my own work.

Signature of candidate:

Date:

ASSESSOR DECLARATION

I can confirm that the evidence presented is valid, authentic, current and sufficient within the context of the qualification criteria, and demonstrates the candidate's competence across the outcomes claimed.

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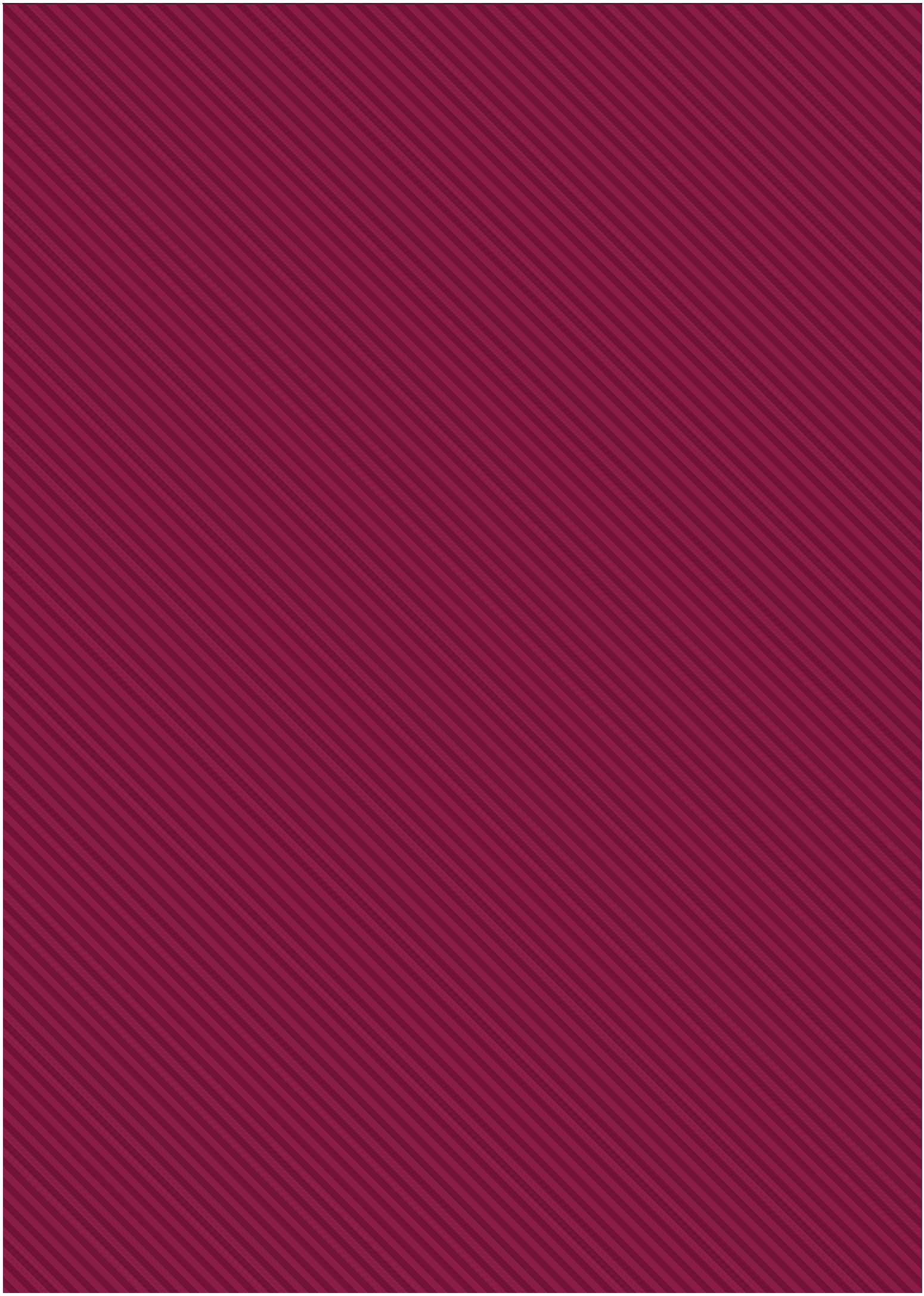

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