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SVQ in Signmaking at SCQF Level 6

**Qualification Reference Number**

GR43 46

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# PERSONAL COMPETENCE SUMMARY

Name	Company/Centre
Job Title	GQA Registration Number

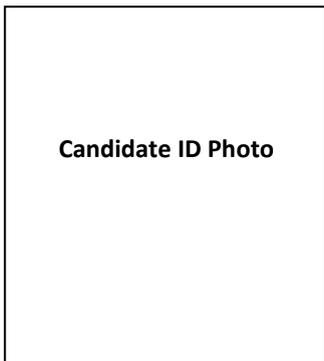
Unit Number	MANDATORY UNITS	SCQF Level	SCQF Credit	ASSESSOR SIGNATURE	DATE
3.01	Monitor and Maintain the Safety of the Workplace	6	8		
3.02	Create, Develop and Maintain Effective Working Relationships in Signmaking	6	6		
3.03	Receive, Interpret and Confirm Client Instructions	6	6		

**Group A Candidates must take a minimum of 2 units**


**Group B - Candidates must take a minimum of 1 units**


**RELIABLE EVIDENCE:** The forms of evidence available include (☑ as appropriate)

Observation in the workplace		Simulation(s)	
Oral assessment of knowledge		Work records	
Written work/assignment		Photographs/Video	
Witness statement(s)		Audio	
Testimonial(s)		Products	
Other (please state)			



	Name and Signature	Date
Candidate		
Lead Assessor		
Internal Verifier		
EQA		

# INTRODUCTION TO THE QUALIFICATION

## Who is this qualification for?

This qualification is aimed at those who undertake work in the Signmaking working environment and has been developed from the Signmaking National Occupational Standards (NOS).

It is not expected that all working in these sectors will all carry out the same activities, so the qualification is structured to ensure that there is a high degree of flexibility in the choice of units, giving the opportunity to complete this qualification for a wide range of occupational roles and activities including both production and installation activities.

The standard covers the most important aspects of the job. This qualification is at SCQF level 6, completion of this qualification requires candidates to show they have the skills and knowledge to work unsupervised in completing their work and should also have the ability and experience to deal with problems that can occur

## What is required from candidates?

Candidates should achieve all 3 mandatory units listed below, plus a minimum of 5 of the optional units in Group A and a minimum of 1 unit from Group B

Guidance on the evidence that will be acceptable is contained in the introduction to each unit.

Unit Number	Mandatory Units	Level	Credit Value
3.01	Monitor and Maintain the Safety of the Workplace	6	8
3.02	Create, Develop and Maintain Effective Working Relationships in Signmaking	6	6
3.03	Receive, Interpret and Confirm Client Instructions	6	6
Group A - Candidates must take a minimum of 5 units			
2.07	Prevent Damage During Transportation and Storage of Sign Products	5	5
3.04	Assess Production Feasibility	5	4
3.05	Prepare and Produce Quotations	7	9
3.06	Set Up and Control Signage Operations	6	4
3.19	Plan Work Methods, Resources and Systems to Meet Installation Project Requirements in Signmaking	6	7
3.20	Implement Works to Meet Installation Project Requirements in Signmaking	6	6
3.23	Determine and Carry Out Maintenance of Sign Products	6	4
3.25	Conduct Site Survey and Prepare Signage within the Highway	6	6
3.08	Plan and Maintain Production Process	6	6
3.07	Identify Non-Conformance and Recommend Action	7	8
Group B - Candidates must take a minimum of 1 unit			
3.09	Signage - Produce shaped Products	6	7
3.16	Signage - Produce self adhesive decorated Products	6	7
3.17	Signage - Produce formed products	6	7
3.18	Assemble and Dismantle Access Structures in Signmaking	6	7
3.21	Specify and Produce Graphical Images Using ICT ? (Information Communication Technology)	6	7
3.22	Establish and Develop Detailed Design Work for Signmaking	6	7
3.24	Produce Traffic Signface Designs Using Specific Computer Software	6	9
3.10	Signage - Produce joined products	6	7
3.11	Signage – Produce engraved products	6	7
3.12	Signage - Produce etched products	6	7
3.13	Signage - Produce hand decorated products	6	7
3.14	Signage - Produce spray painted products	6	7
3.15	Signage - Produce screen printed products	6	7

## **Assessment Guidance**

Evidence should show that the candidate can cover the scope of performance outlined for each relevant unit consistently over an appropriate period of time.

### **Types of evidence:**

Evidence of performance and knowledge is required. Evidence of performance should be demonstrated by activities and outcomes, and should be generated in the workplace only, unless indicated under potential sources of evidence (see below). Evidence of knowledge can be demonstrated through performance or by responding to questions.

### **Potential sources of evidence:**

The main sources of evidence for each unit will be observation of performance and questions to show underpinning knowledge. This can be supplemented by the following types of physical or documentary evidence:

- Work products
- Organisational documentation
- Audio/photographic/video
- Delivery records
- Witness testimony
- Professional Discussion
- Inspection reports
- Notes and memos
- Candidate statements
- Organisational reports
- Simulation of accident or emergency

**Please Note that photocopied or downloaded documents such as manufacturers' or industry guidance, H&S policies, Risk Assessments etc, are not normally acceptable evidence for GQA qualifications unless accompanied by a record of a professional discussion or Assessor statement confirming candidate knowledge of the subject. If you are in any doubt about the validity of evidence, please contact your GQA External Quality Advisor.**

# **GQA QUALIFICATION IMPLEMENTATION REQUIREMENTS COVERING CENTRE APPROVAL, CANDIDATE ASSESSMENT AND ONGOING QUALITY ASSURANCE**

This document indicates the requirements of Approved Centres delivering GQA qualifications and / or units of credit.

## **1. Equality of Opportunity**

Equality of access to fair and valid assessment is necessary for all candidates undergoing assessment. This may mean making reasonable adjustments to normal assessment methods for candidates with particular or special assessment requirements. Candidates work patterns should not become a barrier to assessment, the organisation of which may have to be flexible. In the same way, reasonable adjustment arrangements may be necessary for candidates with a disability. For example, a candidate who is unable, through disability, to produce oral or written evidence, may be allowed to use the method they normally use as a substitute for the required form of communication. Reasonable adjustments need to be approved by GQA.

## **2. Recognised/Approved Assessment Centres**

2.1 Individual centres must be approved by GQA to offer specific qualifications and / or units of credit. A centre may be a single organisation or a partnership of two or more organisations. It may operate at a single location or have satellites. For further details see the GQA booklet "Guide to Centre Approval". The Centre Approval process is carried out by a GQA approved EQA. Each Centre must maintain a centre file. It is important to be clear what the steps in the assessment process are:

- plan evidence collection and opportunities for assessment
- collect evidence
- judge evidence
- determine whether sufficient evidence has been presented
- make an assessment decision and give feedback to the candidate

**NB Any deviation from the norm must be approved by a GQA EQA**

### **2.2 Assessors and Verifiers**

All Assessors of candidate performance must be competent, to make qualitative judgements, both in the skills they are assessing and in the assessment of candidates and hold the appropriate Assessor national award. Assessor occupational knowledge related to the qualifications being assessed is essential and must be illustrated to GQA prior to approval.

Internal Verifiers are responsible for the quality assurance of the assessment process within a centre. They should have a relevant occupational background, be competent in internal verification and hold the Internal Verifier national award. It is recommended that Internal Verifiers work towards national recognition of assessor competence.

EQAs are responsible for ensuring accurate and consistent standards of assessment across centres, qualifications, units of credit and over time. They should have a relevant occupational background, be competent in external quality assurance and hold the EQA national award.

GQA will approve and licence all individuals involved in the assessment and verification of its approved qualifications and / or units of credit. Individuals who are working towards the Assessor or Internal Verifier national awards can only be provisionally licensed. The judgement of provisional licence holders will need to be agreed/authorised by a fully qualified and GQA licensed individual who cannot carry out a dual role in relation to a specific candidate.

All GQA Assessors and Verifiers must undertake a minimum of 2 significant CPD activities in both occupational areas and assessment and verification. Reflective CPD records must be maintained and made available to GQA EQAs for review.

### **2.3 Centre Approval, Monitoring Reviews and Quality Assurance**

The centre recognition/approval process is the start of a significant part of the awarding body's quality assurance system. The Approval process will begin with an EQA review of centre procedures to ascertain the potential centres ability to deliver GQA qualifications and / or units of credit. Centres will be expected to meet the relevant regulatory authority criteria for delivery of qualifications prior to initial approval; continued compliance with the criteria will be monitored through regular EQA visits. It is recommended that centre reviews are conducted at minimum every six months by a GQA EQA.

New or multi-site centres may be required to undertake quarterly or more frequent EV reviews to ensure that different locations can be seen to satisfy the national requirements.

GQA will ensure that unacceptable barriers relating to the assessment and internal verification of candidates in small companies do not deny recognition of competence to competent young workers. In such circumstances, GQA will demonstrate that its quality assurance procedures remain sufficient and rigorous to ensure that the competence outcomes have standing and credibility in the occupational area.

Enhanced quality procedures to ensure consistency of assessment and verification will be necessary and will include:

- a high level of sampling of assessment decisions N.B. In some instances the EQA may visit each assessment location and qualification / unit of credit candidate (e.g. single candidates dispersed throughout different small companies on government funded programmes)
- an in-depth scrutiny of assessment plans, materials and records
- specific centre guidance aimed at the successful implementation of qualifications and / or units of credit in SMEs via approved centre partnerships. This can include guidance on the quantity and quality of valid, authentic, and transferable evidence expected to be attributed to individual candidates
- ensuring centres are following the requirements prescribed in any appropriate assessment strategies and applicable codes of practice
- the identification and publication of good practice in centres

As part of the Quality Assurance process Proskills require an Enhanced External Verification process. This will be in the form of 1 significant underpinning knowledge question answered by the candidate for each unit of the qualification. The questions will be decided by GQA, and guideline answers must be submitted for approval and once approved kept in the Centre File to allow independent assessment

### **3. Qualification / Unit of Credit Candidates**

All candidates must register with a GQA recognised/approved centre. The centre must maintain appropriate candidate personal details for external audit purposes etc.

The centre will provide candidates with advice and guidance on how to prepare for assessment and allocate an Assessor who will assess candidate ability to meet the requirements of the relevant qualifications / unit of credit. It is the candidate's responsibility to demonstrate competence and to do this they must:

- prove they can consistently meet all the qualification and / or unit of credit criteria
- provide evidence from work, that they can perform competently in all the contexts specified in the qualification / unit of credit requirements
- prove that they have the knowledge and understanding required to perform competently, even where they have not provided evidence from the workplace

It is therefore critical that quality evidence is provided in a format to allow the Assessor to make a decision and for the Internal Verifier to audit/verify his/her decision.

#### **4. Evidence**

A qualification and / or credit is awarded when a person has achieved the necessary outcomes of the qualification and / or unit of credit.

The specific combination of units necessary to achieve a qualification is detailed in the qualification structure.

Certificates of Unit Credit can be awarded when candidates achieve any one, or more, units from the qualification.

The evidence the candidate brings forward is primarily evidence of performance of what he/she can do, not just what he/she knows. The assessment criteria / qualification requirements are described within the qualification and / or unit of credit itself and can incorporate practical skills and knowledge.

The assessor's role is to judge each relevant item of evidence. Each must be judged against the qualification and / or unit of credit requirements. It is not sensible to collect evidence against individual criteria. Nor is it effective. If items of evidence were collected for each of the criteria, the candidate may have to produce many items of evidence, well above the number actually required. GQA recommend holistic assessment.

When judging each item of evidence, the assessor is deciding whether the evidence:

- is authentic – i.e. actually produced by the candidate
- meets the criteria
- relates as appropriate to a context defined within the qualification and / or unit of credit
- confirms that the candidate has the required underpinning knowledge in the qualification and / or unit of credit over time and range of work. The assessor must judge how long a time period is enough to be confident that the candidate can perform reliably to the standard. Unsupported evidence i.e. based on a single assessment/visit will not normally prove consistency.

When the assessor makes a decision about the candidate's competence, he or she examines all the evidence available to determine:

- if the evidence, as a whole, covers all the evidence of achievement
- whether the evidence indicates consistency in competent performance
- whether there is enough evidence on which to base an inference of competence

The answer can only be:

- yes (the candidate is competent)
- no (the candidate is not yet competent)
- there is insufficient evidence to make a decision

Consistency means that the individual is likely to achieve the standard in their work role, in the different activities defined

## Performance evidence

Performance evidence can be what the individual actually produces, or the way the individual achieves the standard. One is called product evidence and the other process evidence.

Product evidence is tangible – you can look at it and feel it. Products can be inspected and the candidate can be asked questions about them.

In order to make a fair and objective assessment, the assessor must be able to answer the question: Is there sufficient evidence that the candidate can consistently meet the requirements of the qualification and / or unit of credit?

Process evidence describes the way the candidate has achieved an outcome – how they went about it. This may be, for example, the way the quality of products is checked or the way customer complaints are handled. This usually means observing the candidate in action.

Performance evidence may cover a number of outcomes. It makes sense to plan evidence collection so that what the candidate does, in the normal course of their job, can be related to different outcomes and units. The activities that clearly link to the qualification and / or unit of credit requirements are the things to concentrate on when planning evidence collection and assessment and when monitoring the candidate's progress. Look for opportunities in the candidate's job when evidence can be collected against a number of units at the same time.

Performance evidence can be:

- Naturally occurring – evidence produced in the normal course of work. Evidence of this sort is usually of high quality and reliable. It is also cost effective to collect naturally occurring evidence
- Taken from previous achievements – the candidate may be able to bring forward evidence from previous work experience to show that they are still competent to the standard.
- Evidence of prior achievement can be used when it can be shown to support a judgment that the candidate can still achieve the standard. So, the assessor must be satisfied that the evidence of prior achievement is sufficiently reliable to justify saying that the candidate is currently competent.
- Simulated – from circumstances specially designed to enable the candidate's performance to be assessed.

Simulation is generally not acceptable. The exceptions to this are:

- o Dealing with emergencies
- o Dealing with accidents
- o Certain pre-approved real time simulators
- o Limited other procedures that cannot be practically performed in the workplace, and for which sufficient evidence can be collected through other means.

**NB:It is not always possible or feasible to collect naturally occurring evidence. It is likely that some simulation may be needed, when it may take too long to wait for the evidence to arise e.g. it may be an aspect of performance which occurs infrequently. An example of this may be evidence of how to deal with emergencies i.e. it makes sense to look for evidence from sources other than naturally occurring ones, rather than for, say, waiting for the building to burn down. Centres must obtain GQA EQA approval prior to the use of simulation.**

## Knowledge evidence

Being able to achieve a standard requires the ability to put knowledge to work. The qualification and / or unit of credit indicates the knowledge each person should use if they are to perform competently.

It should not be necessary to test all of the candidate's knowledge separately; however, any exception to this would be detailed in the relevant Assessment Strategy. Performance evidence could show that the candidate knows what

he or she is doing. When this is not the case, or if the assessor is not convinced from the performance evidence, it may be necessary to check the individual's knowledge separately.

Oral or written assessments must clearly provide a suitable means of checking the breadth and depth of an individual's knowledge. Assessors will need to judge the best mix of knowledge evidence according to individual circumstances. Knowledge evidence is useful when deciding the quality of performance evidence, but must not be used in isolation to judge competence or as an alternative to performance evidence. Care must be taken that candidate evidence is auditable and verifiable.

NB: These Qualification implementation guidelines are generic across the full range of GQA qualifications. Further guidance on acceptable evidence on each qualification will be found in the Introduction to the Qualification section of the candidate booklet

# SVQ CANDIDATE DECLARATION

Candidate Name.....

Centre/Company Name.....

Assessor(s) Name(s) .....

I acknowledge receipt of this copy of the GQA qualification booklet. The unit structure provides information on which units must be achieved to be awarded the SVQ. The individual units detail the necessary requirements etc that I must achieve. I understand that I will have an important role in preparing for and planning assessments and with guidance from the assessor I will collect and record relevant evidence.

I understand that all evidence should be produced by me or be directly attributable to me.

I have been informed of the appeals system and have been issued with a copy of the appeals procedure, should I want to appeal against any part of the assessment process.

I understand the assessments will be carried out with regard to the company/centre Equal Opportunities Policy.

Candidate Signature .....

Date .....

## **UNIT 3.01 MONITOR AND MAINTAIN THE SAFETY OF THE WORKPLACE (Level 6, 8 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to monitor and maintain the safety of the workplace. This involves monitoring safety in the workplace, identifying risks and completing risk assessments when necessary, maintaining safety in the workplace and finally maintaining the necessary conditions for an effective and safe working environment.

This unit deals with the following:

1. Monitor safety in the workplace
2. Maintain health and safety in the workplace
3. Maintain the necessary conditions for an effective and safe work environment

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. check workplace environment and resources for potential and actual hazards within specified timescales
2. check appropriate fault indicators regularly for deviations from normal operational condition
3. identify and record actual and potential hazards in the workplace
4. take immediate action, following procedures, to deal with serious hazards and emergencies
5. report to the relevant personnel any conduct by others which is likely to result in injury to yourself or others
6. ensure that monitoring records are complete, accurate, current, legible and in an appropriate format
7. follow relevant health and safety and environmental requirements and legislation at all times
8. obtain and select the appropriate PPE (Personal Protective Equipment) for the work activity
9. use PPE (Personal Protective Equipment) correctly, according to agreed safety requirements
10. identify risks, hazards, faults and defective PPE (Personal Protective Equipment) and report promptly to the relevant person
11. ensure that your conduct in the workplace is free from dangerous and hazardous actions
12. rectify any hazards that are within your authority, following approved methods
13. dispose of waste safely according to safety requirements
14. use safe lifting and carrying techniques at all times
15. check that working conditions and the use of resources satisfy current legislation, approved codes of practice and organisational requirements
16. follow maintenance procedures according to requirements
17. deal with accidents and incidents effectively, according to legal and organisational requirements and approved codes of practice
18. identify potential or actual breaches of requirements and take the appropriate action

19. make any recommendations for improving conditions and distribute to the relevant personnel
20. ensure that records are complete, accurate, legible and available to relevant personnel
21. maintain all relevant health and safety systems and procedures according to requirements and instruct relevant personnel accordingly
22. maintain security systems and procedures according to requirements
23. inform relevant people of changes in procedures and requirements
24. take appropriate action to improve efficiency
25. ensure that the work environment is conducive to work activity

### ***Knowledge and Understanding***

You need to know and understand:

1. what aspects of the work environment and resources need to be monitored
2. how to use hazard checking methods in relation to the types of hazards to be monitored
3. what the monitoring frequencies are
4. what are the relevant fault indicators for plant, tools and equipment
5. how to check for and identify actual and potential hazards relating to utility supply, furniture, equipment, materials, projections, obstructions and working practices
6. what actions should be taken in the event of actual and potential hazards including minor and major hazards
7. what actions to take in the event of emergencies including illness, accidents, fire, evacuation and explosion
8. how to recall and record information
9. what are appropriate recording formats and how to use them
10. who are the relevant personnel
11. what types of hazard are regarded as major
12. why unsafe conduct by others should be reported
13. what problems may occur
14. what is the appropriate action to take if there are problems
15. what legislation and organisational codes of practice are relevant
16. what are the consequences of not following legislation and organisational requirements
17. what Health and Safety and environmental requirements and legislation are relevant and how to follow them
18. what are the consequences to you and to others of not following Health and Safety and environmental legislation
19. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities, to include equipment to protect head, trunk, hands, feet, eyes and ears
20. how to use PPE (Personal Protective Equipment)
21. what is regarded as appropriate and inappropriate behaviour in a given context

22. how to determine acceptable and unacceptable work conditions
23. what health and safety requirements are relevant and how to apply them
24. what the consequences are of not following health and safety requirements
25. what action to take when things go wrong
26. how to organise work area so that it is safe
27. what types of ancillary attachments need to be removed (e.g., blades, filter masks)
28. what constitutes waste and how to remove waste materials in line with Health and Safety requirements
29. what the consequences are of not removing waste materials in the correct way
30. how to check for and identify actual and potential hazards relating to utility supply, furniture, equipment, materials, projections, obstructions and working practices
31. what actions should be taken in the event of actual and potential hazards including minor and major hazards
32. the importance of learning and skill development
33. the importance of maintaining adequate supply of resources
34. how to apply relevant items of legislation and organisational policies and procedures to actual/typical circumstances
35. how to maintain a healthy and safe environment
36. monitoring operations, services and systems and analysing efficiency, effectiveness and quality
37. key features of legislation and other requirements relating to working conditions and the indications of breaches of those
38. maintenance schedules and conditions necessary to maintain equipment within given area of responsibility
39. procedures for reporting incidents and accidents and how they operate
40. how to gain feedback from others on working conditions

**Assessor Comments/Feedback**

## **UNIT 3.02 CREATE, DEVELOP AND MAINTAIN EFFECTIVE WORKING RELATIONSHIPS IN SIGNMAKING (Level 6, 6 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to be able to create, develop and maintain effective working relationships with either internal or external contacts.

This unit deals with the following:

1. Create, develop and maintain effective working relationships with colleagues
2. Create, develop and maintain effective working relationships with external contacts

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. establish and maintain constructive relationships with colleagues
2. meet commitments to colleagues within agreed timescales
3. offer assistance to colleagues within own work constraints, where timescales cannot be met
4. provide colleagues with information and support, to meet identified needs
5. raise concerns over quality of work promptly and discuss with the relevant person
6. ensure that the methods of communication and support are appropriate to the needs of colleagues
7. refer, to the relevant person, any working relationships with colleagues which meet with difficulty and are beyond your own authority to resolve
8. maintain the confidentiality of information relating to colleagues
9. follow relevant health and safety and environmental requirements and legislation at all times
10. establish, agree and record methods of working with external contacts
11. develop and maintain positive working relationships with external contacts to enable working arrangements to be fulfilled
12. respond to requests for information promptly, courteously and accurately, within the limits of own responsibility
13. maintain confidentiality according to organisational requirements
14. refer to the relevant person any working relationships with external contacts, which encounter difficulties and are beyond your own authority to resolve

### ***Knowledge and Understanding***

You need to know and understand:

1. your own work role and responsibilities

2. colleagues' work roles and responsibilities
3. ways of establishing constructive relationships
4. ways of seeking and exchanging information, advice and support
5. ways of dealing with disagreements and conflict
6. ways of dealing with confidential information
7. ways of informing and consulting with others about problems and proposals
8. use of different styles of approach in different situations
9. methods of communication to suit individual needs
10. who are the relevant personnel
11. what problems may occur
12. what is the appropriate action to take if there are problems
13. what legislation and organisational codes of practice are relevant
14. what are the consequences of not following legislation and organisational requirements
15. what health and safety and environmental requirements and legislation are relevant and how to follow them
16. what are the consequences to you and to others of not following health and safety and environmental legislation
17. the scope and limit of your own authority for dealing with external relationships
18. ways of establishing constructive relationships
19. relevant legal and regulatory requirements
20. methods of motivating people
21. organisation's reporting procedures

**Assessor Comments/Feedback**

## **UNIT 3.03 RECEIVE, INTERPRET AND CONFIRM CLIENT INSTRUCTIONS (Level 6, 6 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to obtain, identify, record, provide information and advice to either clients, who may be internal and / or external, colleagues, line managers, supervisors, team leaders etc about sign products and services.

This unit deals with the following:

1. Receive and confirm client instructions
2. Interpret specifications and agree work to be carried out
3. Provide advice about sign products and services

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. record instructions using appropriate documentation and/or computer systems according to organisational requirements
2. identify and clarify omissions and inconsistencies with the relevant personnel and record accurately
3. inform relevant personnel where problems in meeting client needs are anticipated and suitable alternatives are discussed and agreed
4. acknowledge instructions according to organisational requirements
5. treat clients politely and in a manner which promotes goodwill
6. follow relevant health and safety and environmental requirements and legislation at all times
7. assess client needs and extract relevant details
8. translate client needs into information to enable process specifications to be created
9. develop process specifications to meet client and organisational requirements
10. identify problems in meeting client needs, clarify with the relevant personnel and if changes are required, identify suitable alternatives for discussion with the client
11. present to and agree with the client, final/amended specifications
12. record relevant information accurately and legibly and forward to the relevant personnel
13. ensure that enquiries accepted, conform to organisational capabilities and requirements
14. identify and agree client needs with the client, before continuing with any advice
15. provide advice only to authorised people and follow data protection legislation
16. compare client needs with sign products and services offered by the organisation
17. ensure that all information used is relevant, current, accurate and suitable to meet identified needs
18. describe accurately the features, advantages and benefits of sign products and services to the client

19. advise the client of the most appropriate product or service to meet the agreed needs
20. provide advice which is appropriate to the client's needs
21. refer to the relevant person any requests which are outside your responsibility
22. record advice given to the client using appropriate documentation
23. ensure that records are stored appropriately and meet security and confidentiality requirements

### ***Knowledge and Understanding***

You need to know and understand:

1. how to collect and record information
2. why it is important to identify and clarify omissions and inconsistencies in information
3. how to communicate with clients and other personnel
4. signmaking terminology specific to the process
5. what types of information is required
6. documentation procedures and how they are completed
7. organisational procedures and practices
8. types of specification and how they are interpreted
9. production processes and terminology - design, manufacture, installation
10. different types of sign materials and their characteristics
11. who are the relevant personnel
12. who is regarded as a client and why
13. what problems may occur
14. what is the appropriate action to take if there are problems
15. what legislation and organisational codes of practice are relevant
16. what are the consequences of not following legislation and organisational requirements
17. what health and safety and environmental requirements and legislation are relevant and how to follow them
18. how to extract and translate client specification details
19. importance of good communications
20. how to develop process specifications
21. importance of understanding material specifications
22. different types of process specifications and how they are prepared
23. production processes and terminology – specific to the process
24. signmaking qualities specification and suitability for different types of work
25. what are the consequences to you and to others of not following Health and Safety and environmental legislation

26. how to identify and agree what information will meet customer needs
27. who are authorised and unauthorised personnel
28. how to identify and compare and contrast different methods of providing advice to arrive at the most appropriate method
29. how to identify and compare and contrast different types of information to arrive at the most appropriate information
30. how to access and obtain technical information on equipment condition and materials and nontechnical information on the signmaking environment and production issues
31. what communication values are important to the organisation
32. how to determine appropriate organisational values relating to effective communication (e.g. honesty, openness)
33. how to identify and compare and contrast features, benefits and advantages of sign products and services within responsibility
34. how to maintain and develop relationships
35. how to record information which is complete and accurate and knowing when it is complete and accurate
36. which recording methods and storage places to use and why and how to use them
37. what the consequences are for you and the organisation of not maintaining security and confidentiality in line with relevant legislation

**Assessor Comments/Feedback**

## **UNIT 2.07 PREVENT DAMAGE DURING TRANSPORTATION AND STORAGE OF SIGN PRODUCTS (Level 5, 5 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to prevent damage during moving and storing of sign products. This involves, when applicable, preventing damage to sign products when moving between processes and when being stored as finished products. Sign products can apply to raw materials, work in progress and finished products.

This unit deals with the following:

1. Protect finished products during transportation
2. Protect finished products during storage

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. ensure that sign product(s) which are ready for transportation are stored within the designated area
2. choose the correct equipment to move the sign product(s)
3. identify and select suitable protection methods and materials
4. position and secure protective materials accurately and correctly to prevent damage to the sign product(s)
5. check that the sign product(s) to be moved are correct, safely loaded and secure
6. report any problems with the protective materials, sign product(s) and/or equipment immediately to the relevant personnel
7. follow relevant health and safety and environmental requirements and legislation at all times
8. ensure that the protective capabilities of materials will be maintained during storage
9. position and secure protective materials to prevent damage to the finished sign product
10. use the appropriate seating and separation methods to ensure safe storage for the product
11. check that finished products are stored within the designated area
12. report any problems that you cannot solve and/or are not your responsibility to the relevant personnel
13. record information accurately using the appropriate documentation

## ***Knowledge and Understanding***

You need to know and understand:

1. what the characteristics are of the sign product and the likelihood of damage occurring during transportation
2. how to identify and maintain the protective capabilities of materials
3. how to select appropriate protective materials and methods for specific products and specific methods of transportation
4. what the characteristics are of protective materials and how to handle them without causing damaging
5. how to position and secure protective materials and the implications of not using them
6. what different protective materials cost
7. what different methods and techniques are used to repair products
8. what are acceptable designated storage areas
9. how to identify and select the most suitable method of transportation
10. how to identify products which need extra care during transportation
11. what could cause damage to a specific product during transportation on particular routes
12. what the consequences are of not taking account of factors which could cause damage including damage by people, moving equipment, moving machinery, moving materials and the environment
13. who are the relevant personnel
14. what problems may occur
15. what is the appropriate action to take if there are problems
16. what legislation and organisational codes of practice are relevant
17. what are the consequences of not following legislation and organisational requirements
18. what health and safety and environmental requirements and legislation are relevant and how to follow them
19. what are the consequences to you and to others of not following health and safety and environmental legislation
20. what are the characteristics of each product, and the likelihood of damage occurring
21. how to identify and maintain the protective capabilities of materials
22. how to select appropriate protective materials and methods for specific product
23. what different ways are necessary to handle protective materials without damaging them
24. how to determine the most appropriate handling methods for each specific protective material
25. what are appropriate positioning and securing positions and methods for different protective materials
26. what different protective materials cost
27. what are the different types of repairing methods and techniques
28. what are appropriate designated storage areas for different products including marked and unmarked areas and those within and away from the personal work area
29. what different seating protection methods and materials there are and which to use in different circumstances

30. what could cause damage to a specific product during storage including damage by people, moving equipment, moving machinery, moving materials and the environment
31. what storage facilities are required for different products including access, storage racking, racking materials and protective materials
32. how to determine the suitability of different storage racking and materials for the products to be stored

**Assessor Comments/Feedbacks**

## **UNIT 3.04 ASSESS PRODUCTION FEASIBILITY (Level 5, 4 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to assess product feasibility. This involves establishing the method of working that is required that is specific to the process, and then assessing the requirements for and the availability of required resources.

This unit deals with the following:

1. Establish method of working
2. Assess requirements for and establish availability of resources

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. assess work that needs to be carried out in order to meet client specifications
2. present suitable alternatives for discussion with client where client specifications cannot be met
3. clarify any problems in achieving client specification with relevant personnel
4. inform the client promptly where specifications cannot be met and suitable alternatives are unavailable
5. ensure that product specifications accepted are within resource capabilities and conform to organisational requirements
6. develop the method of working to achieve client specification according to operational and organisational requirements
7. record relevant information using appropriate documentation
8. follow relevant health and safety and environmental requirements and legislation at all times
9. analyse client enquiries and assess resource requirements needed to achieve the specification
10. identify all resource requirements which will affect the estimate and report to relevant personnel
11. consult relevant information sources to establish availability of identified resource requirements
12. ensure that the information obtained is current, relevant and accurate
13. confirm that the assessment of resource availability allows for potential contract variations and in the event of non-availability, future availability is established
14. take relevant contingency actions where available resources do not meet specifications
15. record relevant information that is required to proceed with the estimate using the appropriate documentation

### ***Knowledge and Understanding***

You need to know and understand:

1. how to assess work to be carried out
2. information of communications with clients and other personnel
3. different work methods and how they are carried out
4. problems likely to occur with specifications and how they are overcome
5. organisational procedures and practices
6. production processes and terminology – specific to the process
7. resource capabilities and supplier's facilities and products
8. who are the relevant personnel
9. what problems may occur
10. what is the appropriate action to take if there are problems
11. what legislation and organisational codes of practice are relevant
12. what are the consequences of not following legislation and organisational requirements
13. what health and safety and environmental requirements and legislation are relevant and how to follow them
14. what are the consequences to you and to others of not following health and safety and environmental legislation
15. importance of establishing resource requirements
16. different contingency actions likely to be taken
17. how to record information
18. information sources
19. the types of resources available

### **Assessor Comments/Feedback**

## **UNIT 3.05 PREPARE AND PRODUCE QUOTATIONS (Level 7, 9 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to prepare and produce quotations. This involves calculating costs, obtaining the selling price and estimates and finally presenting the final quotation taking account of all relevant organisational requirements.

This unit deals with the following:

1. Calculate costs
2. Obtain selling price
3. Obtain estimates
4. Present final quotations

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. consult a variety of information sources to establish production costs to achieve the specification
2. check that the information obtained is current, relevant and accurate
3. consult with relevant personnel to obtain the price of materials and services to achieve the specification
4. establish costs from calculations based on established methods of working and relevant information
5. adjust costs where time constraints or resource contingencies necessitate alternative provision
6. apply purchasing prices according to organisational requirements
7. record relevant information and cost calculations accurately and legibly according to organisational requirements
8. follow relevant health and safety and environmental requirements and legislation at all times
9. confirm that costings are accurate and current according to organisational requirements
10. identify any discrepancies and take the relevant remedial action
11. ensure that prices take into account current strengths, weaknesses, opportunities and threats
12. ensure that information requested by the person setting the selling price is obtained and provided promptly
13. apply pricing policy and establish the appropriate selling price
14. record established selling price accurately and legibly according to organisational requirements using the appropriate documentation
15. identify supplies that need to be purchased from outside suppliers
16. identify suitable suppliers and specify required supplies
17. request estimates to meet supply specifications and ensure they arrive within required time schedule
18. analyse estimates received against specifications and enter into negotiations as required

19. select the estimate that is most suitably matched to specifications
20. prepare quotations which contain all of the relevant information
21. prepare quotations in a suitable format using appropriate documentation to meet the needs of the client and organisation
22. check quotations and identify and rectify any discrepancies
23. undertake a final check of quotations and identify and note any contingencies and potential liabilities
24. identify, obtain and submit samples and relevant information requested by the client with the quotation
25. forward quotations to the client in the requested format and follow up in accordance with organisational requirements
26. classify client quotations and forward for filing in accordance with organisational requirements

### ***Knowledge and Understanding***

You need to know and understand:

1. how to establish production costs - design, manufacture, installation
2. importance of accurate costings and calculations
3. importance of using all information sources
4. organisational procedures and practices
5. information sources available
6. different production techniques - design, manufacture, installation and how they are applied
7. who are the relevant personnel
8. what problems may occur
9. what is the appropriate action to take if there are problems
10. what legislation and organisational codes of practice are relevant
11. what are the consequences of not following legislation and organisational requirements
12. what health and safety and environmental requirements and legislation are relevant and how to follow them
13. what are the consequences to you and to others of not following health and safety and environmental legislation
14. how to confirm costings in accordance with requirements
15. discrepancies likely to be encountered and how they are dealt with
16. importance of obtaining and recording information
17. importance of strengths, weaknesses, opportunities and threats analysis
18. pricing policies and how to apply them
19. organisational procedures and practices
20. how to identify purchase requirements
21. how to identify and contact suppliers

22. importance of communication when negotiating with suppliers
23. importance of obtaining accurate quotations
24. how to analyse estimates
25. how to negotiate
26. how to select most suitable estimate
27. discrepancies likely to be encountered and how they are dealt with
28. how to prepare estimates in suitable formats
29. consequences of inaccurate estimates
30. different types of samples and information to submit with estimates
31. different formats in which estimates can be produced

**Assessor Comments/Feedback**

## **UNIT 3.06 SET UP AND CONTROL SIGNAGE OPERATIONS (Level 6, 4 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to set up and control signage operations. This involves configuring the equipment, when applicable, setting and verifying the production parameters and finally adjusting the processing parameters when required to achieve product specifications.

This unit deals with the following:

1. Configure processing equipment to manufacture sign products
2. Set and verify the processing parameters for the production of sign products
3. Adjust processing parameters to achieve product and production specifications

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. check that the resources needed for configuring equipment are available
2. verify that the specified equipment to be configured is suitable to use
3. configure the specified equipment and its energy supplies, ensuring that risks are minimised and the use of resources is optimised
4. ensure that required set points are safely set for the achievement of tolerance limits required for each stage of processing
5. check that materials of the specified type and condition are available in the required quantities for each stage of the processing sequence
6. position safety protection devices and warnings to meet legal and regulatory requirements
7. ensure that the immediate production environment allows for the movement of equipment and materials, minimising risk to individuals, contamination of materials and damage to equipment
8. take the appropriate action in the event of problems
9. follow relevant health and safety and environmental requirements and legislation at all times
10. ensure that information on required settings is accessed from appropriate sources in accordance with processing specification
11. confirm parameter settings according to processing specification
12. set parameters in the appropriate sequences in accordance with the processing specification
13. check that the specified settings correspond to production requirements
14. deal promptly with problems that are your responsibility and report those that you cannot solve and/or are not your responsibility to the relevant person
15. assess variances from product specification and identify the cause and effect of variations

16. make adjustments to processing parameters in the correct sequence and at the appropriate stage in the process to achieve required product specification
17. take the appropriate action where identified variances are caused by machine/material/ energy source malfunction or failure
18. agree and amend specification/s when specified process parameters cannot be achieved
19. record all actions taken using the appropriate documentation

### ***Knowledge and understanding***

You need to know and understand:

1. conditions to enhance movement of materials and equipment and protection of material condition
2. spoilage factors associated with each required material and how they are assessed
3. risks associated with each machine and item of equipment
4. different types of machines and how they operate
5. what problems may occur
6. what is the appropriate action to take
7. what legislation and organisational codes of practice are relevant
8. what are the consequences of not following legislation and organisational requirements
9. what health and safety and environmental requirements and legislation are relevant and how to follow them
10. what are the consequences to you and to others of not following health and safety and environmental legislation
11. legislation and regulations pertaining to configuring and setting
12. risks associated with each machine and item of equipment
13. basic operating principles of machinery
14. conditions and processing parameters to produce the product within the specification
15. safe operating procedures and potential risks associated with machines and equipment
16. location and format for specifications
17. monitoring techniques are being used
18. how to deal with problems
19. who are the relevant personnel
20. how to set processing parameters to produce the product within the specification
21. safe operating procedures and potential risks that are associated with machines and equipment
22. location and format for specifications
23. the effect of changing processing parameters on product properties
24. how to access sources of information needed to establish correct processing conditions
25. how to assess variances from product specification and identify their cause and effect

26. how to make adjustments to the processing parameters
27. how to amend specifications
28. who to agree amended specifications with
29. what is the appropriate action to take
30. what is the appropriate documentation to use

**Assessor Comments/Feedback**

## **UNIT 3.19 PLAN WORK METHODS, RESOURCES AND SYSTEMS TO MEET INSTALLATION PROJECT REQUIREMENTS IN SIGNMAKING (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to plan work methods and systems to meet installation requirements. This involves analysing, evaluating and selecting installation methods, planning work activities to meet requirements and finally identifying and selecting an installation team.

This unit deals with the following:

1. Evaluate and select installation methods
2. Plan work activities and resources to meet installation project requirements
3. Select and form an installation team

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. evaluate project data to make decision on methods of installation and work methods to be used
2. obtain any additional relevant information from alternative sources where available project data is insufficient
3. identify installation work methods which optimise the economical use of resources and meet project, statutory and contractual requirements
4. evaluate methods against relevant criteria and select the optimum method recommended and when necessary, secure agreement from interested parties
5. ensure that selected methods are analysed for their activity content and quantified accurately
6. prepare a method statement that is accurate, clear and concise in content and format and acceptable to all relevant parties
7. follow relevant health and safety and environmental requirements and legislation at all times
8. produce detailed schedules of planned activities in a format to suit the complexity of the project and to meet the requirements of external factors
9. sequence activities logically and calculate their duration in order to meet required project outcomes
10. ensure that the interfaces between each major activity are realistic and are in an appropriate sequence to optimise the use of available resources
11. calculate resource requirements accurately from available information
12. obtain clarification and advice from relevant sources where resource requirements are unclear
13. ensure that alterations to the work programme to suit changed circumstances or which offer cost and time benefits are identified, quantified accurately and justified
14. identify and implement an appropriate information feed-back and monitoring system and make sure that outputs are used to inform future production and planning

15. negotiate and agree proposals for team composition which provide the greatest opportunities for team effectiveness
16. identify and select appropriate and sufficient installation services and resource requirements and their source to meet agreed timescales and budget limits
17. identify and summarise any constraints which will affect the quantity, type and availability of human resources
18. follow appropriate rules and protocols for obtaining installation services and resources
19. ensure that the quality and reliability of installation services and resources is evaluated accurately and the results made available to interested parties
20. conduct and conclude any negotiations, contracts and agreements in a manner that preserves goodwill and trust

### ***Knowledge and Understanding***

You need to know and understand:

1. how to produce method statements that include: available project data analysed and summarised; additional information obtained; installation work methods identified, evaluated, selected, recommended and agreed and selected methods analysed and quantified
2. how to secure agreements to recommended methods
3. how to analyse and summarise project and other relevant data in a format which enables decisions on work methods
4. how to identify installation work methods that optimise use of resources and meet project, statutory and contractual requirements
5. how to evaluate work methods against relevant criteria and select and justify optimum methods
6. how to analyse and quantify activity content of installation work methods
7. how to prepare method statements
8. sources of information and data
9. the types of installation work methods
10. selection and evaluation criteria
11. sources of data for activity analysis
12. what legislation and organisational codes of practice are relevant
13. what are the consequences of not following legislation and organisational requirements
14. what health and safety and environmental requirements and legislation are relevant and how to follow them
15. what are the consequences to you and to others of not following health and safety and environmental legislation
16. how to create works programmes which include: schedules of planned activities; activities and interfaces sequenced and duration calculated; resource requirements calculated and clarified and alternations identified, quantified and justified
17. how to identify and implement records of information, feedback and monitoring systems which include outputs applied to future production and planning
18. how to plan activities to meet project external factors

19. how to produce schedules and programmes of planned activities
20. methods used to calculate the work content, duration and optimum sequencing of activities
21. how to calculate and clarify resource requirements
22. how to identify and implement information feedback and monitoring systems to inform future production and planning
23. the types of project requirements and external factors
24. the types of activity analysis
25. forms of scheduling and programming
26. types of resource requirements
27. how to agree proposals for team composition
28. how to identify and select records of installation services and resources requirements
29. how to identify and summarise records of constraints affecting human resources
30. why results of evaluations of installation services and resources should be made available
31. why it is important to gain written confirmation of contractual arrangements and terms of appointment
32. how to compose installation teams
33. how to identify and select installation services and resource requirements and their source
34. how to evaluate installation services and resources
35. what are the installation requirements and sources
36. what are the rules and protocols for obtaining installation services and resources

**Assessor Comments/Feedback**

## **UNIT 3.20 IMPLEMENT WORKS TO MEET INSTALLATION PROJECT REQUIREMENTS IN SIGNMAKING (Level 6, 6 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to implement works to meet installation project requirements. This involves conducting a site survey, co-ordinating the preparation for site work, and finally co-ordinating the work control.

This unit deals with the following:

1. Conduct site survey and identify statutory control and consent requirements
2. Co-ordinate preparation for site work
3. Co-ordinate work control

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. identify and interpret work instructions to establish requirements
2. gather all relevant information
3. conduct a site survey taking account of all factors
4. analyse and evaluate information gained from site survey
5. identify aspects of the project to which statutory controls apply and for which consents are required
6. record all information accurately and legibly using appropriate documentation
7. follow relevant health and safety and environmental requirements and legislation at all times
8. identify, record and notify relevant personnel of hazards and other special considerations
9. ensure that factors which may compromise the proposed works are identified, described, summarised and made available to the appropriate authorities
10. identify site and works access points which maximise logistics and minimise disruption
11. ensure that utility and emergency services are given clear, relevant and accurate details of the proposed work
12. check that adequate site security arrangements are made prior to and during operations
13. ensure that appropriate storage, temporary accommodation and work area allocations are identified, described and communicated to relevant personnel
14. identify, quantify and justify any alterations to the work programme to suit changed circumstances
15. plan the storage and use of materials and components to minimise wastage and to maximise efficient logistics and materials handling
16. organise and control the site to maintain conditions which are safe, tidy and which create a favourable image of the organisation and its products and services

17. ensure that notices providing information to the public are accurate, conform to statutory requirements, sited appropriately and maintained in good order
18. obtain, review, clarify and update relevant information used in tender and bid preparation for production planning purposes
19. ensure that the required contract period of notice for starting on and off site work is identified and confirmed in writing including start, duration and completion dates and adequate notice is given to all interested parties
20. agree and communicate programme and methods to relevant personnel within appropriate timescales
21. obtain, identify and record design information requirements prior to the start of work
22. organise attendance of sub-contractors according to contractual agreements
23. plan, locate and obtain sufficient resources of the appropriate type to meet the project outcomes and timescales
24. develop appropriate plans to meet special requirements and contingencies to minimise disruption to those likely to be affected by the works programme
25. identify, communicate and monitor necessary consequent actions and responsibilities for implementation

### ***Knowledge and Understanding***

You need to know and understand:

1. how to identify and interpret work instructions
2. how to conduct a site survey
3. what factors need to be taken into account
4. what is the relevant information
5. how to analyse and evaluate information gained from site survey
6. how to identify aspects of the project to which statutory controls apply and for which consents are required
7. how to record the information
8. what are the relevant health and safety requirements and procedures and how to follow them
9. what legislation and organisational codes of practice are relevant
10. what are the consequences of not following legislation and organisational requirements
11. what health and safety and environmental requirements and legislation are relevant and how to follow them
12. what are the consequences to you and to others of not following health and safety and environmental legislation
13. how to identify and record hazards, considerations and compromising factors which could include:  
hazards and special considerations recorded and communicated and compromising factors described, summarised and made available
14. how to identify records of site and works access points
15. how to notify proposed works to utility and emergency services
16. what records of site security arrangements need to be made
17. how to identify, describe and communicate records of storage, temporary accommodation and work area allocations

18. what are the plans for the storage and use of materials
19. what records of notices need to be sited and maintained
20. what are the organisational and control of site conditions which include: hazards, considerations and compromising factors identified and communicated and storage, temporary accommodation and work allocations identified and communicated
21. how to identify and minimise the effect of potential hazards, considerations and compromising factors and comply with statutory regulations
22. how to select and locate site and works access, storage, temporary accommodation and work areas to maximise logistics and minimise disruption
23. how to select and implement appropriate site security arrangements
24. how to plan the storage, use and handling of materials to minimise wastage and to maximise efficient logistics
25. how to organise and control site conditions
26. the types of potential hazards, considerations and compromising factors
27. information required by utility and emergency services
28. the types of site security arrangements
29. the types of storage, temporary accommodation and work area requirements
30. requirements for storage and use of materials and components
31. statutory requirements for notices and information
32. how to assemble, review, clarify and update information used in tender and bid preparation
33. what records of contract dates need to be identified confirmed and notice given
34. the programmes and methods agreed and communicated
35. the records of design information requirements identified and obtained
36. what records of attendance need to be organised
37. the records of resources planned, obtained and located
38. the records of contingency plans developed
39. what records of consequent actions and responsibilities identified, communicated and monitored
40. the agreements and communications of programmes and methods
41. communications and monitoring of implementation actions and responsibilities
42. how to clarify, confirm, update, agree, communicate and monitor contract programmes and methods
43. how to identify, obtain, organise and plan resources for contracts
44. information required for production planning
45. the types of work programmes and methods
46. the sub-contractor contractual arrangements
47. the types of resources required
48. the types of special requirements

**Assessor Comments/Feedback**

## **UNIT 3.23 DETERMINE AND CARRY OUT MAINTENANCE OF SIGN PRODUCTS (Level 6, 4 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to maintain sign products. This involves positioning and installing sign maintenance equipment, implementing preventative maintenance procedures, removing and replacing sign components when necessary, and repairing and restoring components to their original condition by repair, following approved quality procedures.

This unit deals with the following:

1. Position and install sign maintenance equipment
2. Implement preventative maintenance procedures
3. Remove and replace sign components
4. Restore components to operational condition by repair

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. identify, report and eliminate, within the limits of your responsibility, potential sources of danger before installation
2. ensure that the position of equipment and components meets specified requirements and will not adversely affect the performance of other equipment and components
3. undertake installation safely using approved methods and techniques following quality procedures
4. check that equipment and components are free of damage after positioning and installation
5. ensure that the installation is secure in the specified location with fixed items attached to suitable load bearing structures
6. deal promptly with problems that are your responsibility, and report those that you cannot solve and/or are not your responsibility to the relevant person
7. follow relevant health and safety and environmental requirements and legislation at all times
8. obtain and comply with relevant authorisation procedures, safe working practice details, schedule requirements and specific instructions
9. complete necessary preventative maintenance within agreed timescale using safe and appropriate methods
10. complete remedial actions, where necessary, in an appropriate, safe and effective way as defined in procedures
11. ensure that resources comply with specification and are used cost effectively
12. deal promptly with problems in the implementation procedure that are your responsibility and report those that you cannot solve and/or are not your responsibility to the relevant person
13. apply clear and appropriate marking systems for components and connections
14. make relevant isolations and disconnections safely
15. minimise the release of substances according to site and environmental requirements

16. protect the component and surrounding components from damage
17. ensure that the removal and replacement of components is completed using appropriate methods within agreed timescales
18. handle components after removal according to specification
19. check that any replacements used meet the required specification
20. deal promptly with problems in the replacement procedure that are your responsibility, and report those that you cannot solve and/or are not your responsibility to the relevant person
21. check that the repaired components comply with operational requirements
22. check that repaired materials and components meet required specifications for type, quantity and serviceability
23. complete repairs within an agreed timescale and take the appropriate action to minimise disruption to operations
24. use tools, equipment and methods according to safe work practices
25. take adequate precautions to prevent damage to components, tools and equipment during repair
26. ensure that work records are complete, accurate, current and legible

### ***Knowledge and Understanding***

You need to know and understand:

1. what sources of danger are associated with the installation and how to identify and eliminate them
2. why dangers need to be considered before starting and consequences of not doing so
3. how to determine the structural and equipment factors which affect where equipment can be positioned
4. what is acceptable positioning and why its consideration is important
5. what is acceptable and unacceptable damage
6. what methods and techniques are there for securing equipment and how to carry them out
7. what are the meanings of terms used in installation specifications
8. who are the relevant personnel
9. what problems may occur
10. what is the appropriate action to take if there are problems
11. what legislation and organisational codes of practice are relevant
12. what are the consequences of not following legislation and organisational requirements
13. what health and safety and environmental requirements and legislation are relevant and how to follow them
14. what are the consequences to you and to others of not following health and safety and environmental legislation
15. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities, to include equipment to protect head, trunk, hands and feet
16. what are the relevant authorisation procedures and how to follow them
17. what is regarded as preventative maintenance and how to carry it out

18. what are the consequences of not carrying out the preventative maintenance
19. what resources i.e. people, materials, equipment, space and support facilities are required in a given situation and how to use them cost effectively
20. what are the consequences for you and organisation of not being efficient
21. what actions to take when things go wrong
22. what marking systems could be used and how to use them
23. types of disconnections and isolation techniques and methods and how to carry them out
24. what are the consequences for you and organisation of not disconnecting or isolating potentially dangerous items
25. what substances need to be released and how, in given situations
26. what are suitable types of protection for components and surrounding components in given situations and how to carry this out
27. what removal and replacement methods and techniques are suitable in given situations and how to carry them out
28. how to interpret instructions and identify and work with agreed timescales
29. what risks are associated with substances to be removed, physical properties of components and how they affect the removal and replacement
30. when repaired components comply with the specified condition for operation
31. what are suitable repair materials to meet required specifications for type, quantity and serviceability
32. what is an appropriate timescale for a given repair or replacement
33. what operations could be disrupted by repair and how to minimise the disruption
34. what factors to take into consideration when deciding where to carry out the repair
35. what are acceptable tools, equipment and methods for the given repair or replacement and how to use them
36. what action is taken to prevent damage to components, tools and equipment during repair
37. what work records are required and how to complete them

**Assessor Comments/Feedback**

## **UNIT 3.25 CONDUCT SITE SURVEY AND PREPARE SIGNAGE WITHIN THE HIGHWAY (Level 6, 6 Credits)**

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### **Unit Overview**

This unit describes the activities and procedures undertaken when conducting on site surveys to Road Traffic Signs within the highway. The unit covers Health and Safety regulations for working within the highway, production of survey data and sign schedules, knowledge of the Traffic Sign Regulations and General Directions and Traffic Sign Manuals.

The candidate will be expected to demonstrate through practical application, knowledge and understanding of all legislation relevant to their working environment.

This unit deals with the following:

1. Understand Health and Safety procedures for working within the highway
2. Create and update required files
3. Conduct site survey
4. Output traffic sign survey to destination

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. define the site working area
2. identify any hazards and assess risks
3. select the appropriate method for gaining access to site
4. obtain and select the appropriate PPE (Personal Protective Equipment)
5. use equipment safely at all times
6. conduct yourself in a safe and professional manner on site
7. follow relevant health and safety and environmental requirements and legislation at all times
8. identify and locate existing files and data to be updated
9. enter designs using appropriate device within time schedule
10. follow procedures for computer "back up" and take the appropriate action if file or data corruption occurs
11. identify who is responsible for updating virus software and computer maintenance
12. use available automated procedures for design entry or checking
13. save any files created or updated according to company or organisation's procedures
14. identify and interpret work instructions to establish requirements
15. gather all relevant information
16. conduct a site survey taking account of all factors

17. analyse and evaluate information gained from site survey
18. identify aspects of the survey to which the TSRGD (Traffic Signs Regulations and General Directions) and TSM (Traffic Signs Manual) are used
19. record all information accurately and legibly using appropriate documentation
20. select the destination device and materials, which are suitable for purpose
21. check the destination device to ensure that it is ready to receive output
22. take the appropriate action if problems occur
23. check that the sign design is complete and correct prior to output
24. ensure that output parameters are identified and set up correctly to meet output requirements
25. check that the output is complete and meets customer requirements

### ***Knowledge and Understanding***

You need to know and understand:

1. how to identify hazards and assess risks
2. how to use ladders safely
3. working at heights code of practice
4. the PPE (Personal Protective Equipment) requirements
5. responsibilities: individual and company
6. site safety practices
7. how to conduct yourself whilst on site
8. what problems may occur
9. what is the appropriate action to take if there are problems
10. what legislation and organisational codes of practice are relevant
11. what are the consequences of not following legislation and organisational requirements
12. what health and safety and environmental requirements and legislation are relevant and how to follow them
13. what are the consequences to you and to others of not following health and safety and environmental legislation
14. what methods to use to produce Traffic Signface design
15. how to use industry specific software
16. what methods of using bitmap and vector images should be used
17. what are the methods used for saving and locating design files
18. what methods of using input devices and scanning for viruses should be used
19. what are the available procedures for automating designs and checking
20. what methods of recovering from file or data corruption should be used

21. who is responsible for updating virus software and computer maintenance
22. how to identify and interpret work instructions
23. how to conduct a site survey
24. what factors need to be taken into account
25. what is the relevant information
26. how to analyse and evaluate information gained from site survey
27. how to identify aspects of the survey for which the TSRGD (Traffic Signs Regulations and General Directions) and TSM (Traffic Signs Manual) are relevant
28. how to record the information
29. the types of destination devices that are available to you
30. the methods of using hard copy devices
31. what methods of using file storage devices should be used
32. what methods of communicating with selected device for printing or cutting signface design should be used
33. what methods can be used to check output
34. what materials are available for hard copy output and which is the correct material to choose
35. what problems may occur and what is the appropriate action to take within the limits of your own responsibility

**Assessor Comments/Feedback**

## UNIT 3.08 PLAN AND MAINTAIN PRODUCTION PROCESS (Level 6, 6 Credits)

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### Unit Overview

This unit covers the skills and knowledge you will need to plan and maintain the production process. This involves establishing the process requirements, scheduling production and maintaining services and operations whilst following approved quality control procedures.

This unit deals with the following:

1. Establish process requirements
2. Schedule production
3. Maintain services and operations

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### *Performance Criteria*

You must be able to:

1. identify any discrepancies and problems in fulfilling the order and take the appropriate action
2. generate works instructions and pass to the relevant personnel
3. check and confirm the availability of supplies necessary to achieve the production specification
4. identify any problems in meeting the production specifications, take the relevant action, and communicate to the relevant personnel
5. complete documentation according to organisational requirements
6. follow relevant health and safety and environmental requirements and legislation at all times
7. obtain works instructions and establish required schedule of work according to organisational and client requirements
8. identify and take account of any production problems when scheduling production
9. communicate and liaise with relevant personnel throughout the process
10. record relevant information using the appropriate documentation
11. ensure that operations and services satisfy delivery, quantity and cost requirements
12. ensure that work activities consistently meet quality, safety and delivery specifications
13. give information and advice accurately and in line with organisational policy
14. ensure that requirements relating to work activities contain all relevant information
15. distribute and communicate requirements relating to work activities to all relevant personnel
16. forward relevant information which affects customers and the efficiency of operations and services to the relevant personnel
17. note any factors which may cause operations to be disrupted and take the appropriate measures to minimise their effects

18. record information relating to operations and services using the appropriate documentation
19. implement and maintain systems to monitor quantity, quality, cost and time specifications for service/product delivery
20. when appropriate, make proposals for improvements in operations and services and forward to the relevant personnel

### ***Knowledge and Understanding***

You need to know and understand:

1. types of problems likely to be encountered and how they are dealt with
2. importance of confirming supply availability
3. documentation procedures and how they are completed
4. production specification requirements - design, manufacture, installation
5. organisational procedures and practices
6. production processes and terminology design, manufacture, installation
7. function of different departments and personnel
8. who are the relevant personnel
9. what problems may occur
10. what is the appropriate action to take
11. what legislation and organisational codes of practice are relevant
12. what are the consequences of not following legislation and organisational requirements
13. what health and safety and environmental requirements and legislation are relevant and how to follow them
14. what are the consequences to you and to others of not following health and safety and environmental legislation
15. how to organise and schedule work load
16. how to identify and rectify production problems - design, manufacture, installation
17. different processing methods and their capabilities
18. production problems that may occur - design, manufacture, installation and how they are dealt with
19. importance of scheduling systems
20. why it is important to maintain good communications
21. importance of maintaining quality assurance and complying with delivery specifications
22. how to apply relevant items of legislation and organisational rules to actual/typical circumstances
23. how to monitor operations, services and systems and analysing efficiency and effectiveness
24. importance of establishing, defining and reviewing objectives and performance measures
25. how to maintain capacity or resources
26. how to assess availability of resources

27. current processes and outputs of services, operations and systems
28. quality, safety and delivery specifications and how they are implemented
29. customers and their requirements
30. systems for monitoring quality and how they function
31. factors that may cause operations to be disrupted and contingency measures to deal with them
32. why it is important to follow relevant health and safety requirements and procedures at all times

**Assessor Comments/Feedback**

## **UNIT 3.07 IDENTIFY NON-CONFORMANCE AND RECOMMEND ACTION ( Level 7, 8 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to establish the consequences of variations in products and recommend the appropriate course of action. This involves confirming the quality of the product according to operating procedures, identifying non-conformance, determining the cause of variations in products and materials, rectifying the variations, and recording the details of effective solutions whilst following approved quality control procedures.

This unit deals with the following:

1. Establish the consequences of variations in items and recommend action
2. Determine the cause of variations in products and materials
3. Rectify variations and record details

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. compare variations to specification to establish their consequence
2. analyse information taking account of all factors
3. recommend the appropriate action needed to minimise the adverse consequence of variations
4. report recommendations promptly and clearly to relevant personnel using the appropriate method of communication
5. record information as required using the appropriate documentation
6. ensure recommendations take into account production, output downtime and cost implications
7. follow relevant health and safety and environmental requirements and legislation at all times
8. compare work instructions with finished product
9. consult, when appropriate, with the relevant personnel to obtain additional information
10. identify obvious variations in products and materials using suitable techniques and methods
11. take the appropriate remedial action where the cause or source of an identified variation cannot be identified
12. identify and recommend realistic potential solutions to the cause of variations
13. record details of the variation and solution using appropriate documentation and store in the specified place using an accepted system
14. when appropriate, obtain authorisation for identified rectification from relevant personnel
15. select suitable tools and equipment to rectify the identified variation
16. use suitable techniques and methods to rectify the variation to specification
17. use tools and equipment correctly in line with manufacturers' instructions
18. implement the proposed solution to the variation quickly, to minimise disruption to the flow and output of work

19. monitor rectified variations against the specification over an appropriate timescale to ensure the problems have been eliminated
20. record effective solutions and store in the specified place for future reference
21. ensure records are complete, using appropriate documentation

### ***Knowledge and Understanding***

You need to know and understand:

1. how to identify particular consequences of variations
2. what is the probable cause of the variations, including those that would endanger the safety of items, components or component parts
3. how to analyse information
4. how to recommend the appropriate action that is required
5. who are the relevant people
6. how to explain the reasons for recommended actions
7. who are the relevant personnel
8. what are the circumstances under which a production halt would be recommended
9. what legislation and organisational codes of practice are relevant
10. what are the consequences of not following legislation and organisational requirements
11. what health and safety and environmental requirements and legislation are relevant and how to follow them
12. what are the consequences to you and to others of not following health and safety and environmental legislation
13. what are records to use and how to interpret them
14. how to compare and contrast work records and instructions
15. how to determine and select appropriate diagnosis techniques and methods and how to use them
16. what is regarded as effective and ineffective communication within the work environment
17. what operational conditions are regarded as normal and what are deviations from normal
18. what type of record keeping is acceptable in what situations and how to carry this out
19. how to compare types of faults with potential causes and solutions - plant, equipment, materials, process, human error
20. which recording methods, formats and storage places to use and why and how to use them
21. authority level required to authorise changes
22. what are acceptable solutions for particular causes of variation by plant, equipment, process and materials
23. what are the consequences of not solving the problem quickly
24. how to ensure that variations have been eliminated and the importance of monitoring
25. what are appropriate resources for the identified solution
26. how long solutions will take to work through and the consequences for production targets

27. what types of rectification techniques and methods are suitable for specific types of faults
28. how to use appropriate rectification tools, equipment, techniques and methods
29. what types of recording formats are acceptable in what situation
30. how to select and use the appropriate types of recording formats
31. what health and safety requirements are relevant during the rectification of variations and how to apply them
32. which recording methods, formats and storage places to use and why and how to use them

**Assessor Comments/Feedback**

## **UNIT 3.09 SIGNAGE – PRODUCE SHAPED PRODUCTS (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to produce shaped materials and products. This involves obtaining the correct resources for the shaping operation, setting out the materials for shaping and cutting. Identifying and pre-marking areas to be shaped, and performing the shaping operation according to specification following approved quality and company procedures, whilst minimising waste. Monitoring the shaping operation, making any necessary adjustments within the limits of your responsibility, and finally dealing with the shaped product appropriately.

This unit deals with the following:

1. Set out materials for shaping
2. Perform cutting operation

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. select and obtain the appropriate tools, equipment and resources, including PPE (Personal Protective Equipment) and use them according to manufacturers' instructions and safety requirements
2. set out materials according to work instructions, inserting separation and anti-distortion materials when required
3. ensure that the correct quantity of materials is set out to match the specification
4. ensure that positioning, securing devices and equipment are accurately, securely, safely and correctly positioned for the cutting process
5. set out materials to the specified tension without distortion
6. ensure that materials are kept free of contamination
7. store materials in an approved manner
8. deal with problems promptly within the limits of your authority
9. report any problems that you cannot solve and/or are not your responsibility to the relevant personnel
10. follow relevant health and safety and environmental requirements and legislation at all times
11. obtain the correct work instructions and any relevant shaping procedure(s) and quality specification(s)
12. select and obtain the necessary resources to shape the materials to specification, including suitable PPE (Personal Protective Equipment)
13. identify required template shapes, measure and where necessary, cut and then position on the material to be shaped
14. position the cutting device and cut shapes within specified tolerances following approved quality control procedures
15. position notches and marks accurately according to cutting order requirements
16. monitor and control the cutting operation and identify any faults, variations and/or problems that occur

17. make any necessary adjustments within the limits of your authority
18. report any faults, variations and/or problems that you cannot solve and/or are not your responsibility to the relevant person
19. remove and dispose of waste materials safely using an approved method
20. deal appropriately with shaped products and complete any necessary documentation

### ***Knowledge and Understanding***

You need to know and understand:

1. how to identify, obtain and select tools and equipment
2. how to obtain relevant work instructions
3. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities to include equipment to protect head, trunk, hands and feet
4. what materials can be used to separate and prevent distortion in cutting and where to insert them
5. how to set up the correct quantity of materials to match specification lengths, widths and number
6. how to identify and position securing devices and equipment
7. why materials should be set to the specified tension without distortion
8. how to keep materials free from contamination including contamination by people, moving equipment, moving machinery, moving materials and the environment and the consequences of contaminated materials
9. how and where to store materials
10. what problems may occur
11. what is the appropriate action to solve the problems
12. what are the limits of your authority
13. who are the relevant personnel
14. what documentation is necessary
15. what legislation and organisational codes of practice are relevant
16. what are the consequences of not following legislation and organisational requirements
17. what health and safety and environmental requirements and legislation are relevant and how to follow them
18. what are the consequences to you and to others of not following health and safety and environmental legislation
19. how to determine equipment, tools, materials, techniques and methods needed to complete the activity
20. how to select and use appropriate resources i.e. equipment, tools, materials, techniques and methods to shape materials and products
21. how to measure shapes accurately and draw them onto a suitable template material
22. how to identify and select template materials appropriate for the work completed and what the consequences are of not using the appropriate template material
23. what the specified tolerances are and why these are important

- 24.** how to follow quality control procedures
- 25.** what the consequences are of not getting the cutting device accurately positioned at the start of the process
- 26.** what are the accepted sequences for cutting
- 27.** how to cut shapes accurately within specified tolerances
- 28.** how to identify the need for notches and marks and how to cut them in the correct position
- 29.** what is regarded as acceptable quality (e.g. marks, scratches, chips and dust)
- 30.** how to perform and monitor the shaping operation
- 31.** what faults, variations or problems may occur in the shaping operation
- 32.** how to make necessary adjustments within your permitted authority
- 33.** what is regarded as waste and how to minimise it and remove it following approved methods
- 34.** how to deal appropriately with shaped products

## **UNIT 3.16 SIGNAGE – PRODUCE SELF ADHESIVE DECORATED PRODUCTS (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to apply self- adhesive materials to products. This involves obtaining the correct resources for the self-adhesive operation, identifying and pre-marking areas, preparing the area, and performing the self-adhesive operation according to specification following approved quality and company procedures, whilst minimising waste. Monitoring the self-adhesive operation, making any necessary adjustments within the limits of your responsibility, and finally dealing with the product appropriately.

This unit deals with the following:

1. Produce self-adhesive decorated products

During this work you must take account of the relevant worksite operational requirements, procedures and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. select and obtain the necessary resources for decorating the materials to the specified requirements, including suitable PPE (Personal Protective Equipment)
2. identify required template shapes, measure and where necessary, cut and then position on the materials
3. select suitable setting out tools and equipment and use according to manufacturers' instructions and safety requirements
4. select and carry out the relevant preparation technique to match the materials being used
5. position and secure devices and equipment and check that materials are laid out to the specified tension without distortion
6. perform the self-adhesive operation according to specification following quality procedures and protect surfaces from damage
7. monitor and control the operation and identify any faults, variations and/or problems that occur
8. make any necessary adjustments within the limits of your authority
9. report any faults, variations and/or problems that you cannot solve and/or are not your responsibility to the relevant person
10. remove and dispose of waste materials safely using an approved method
11. deal appropriately with products and complete any necessary documentation
12. follow relevant Health and Safety and environmental requirements and legislation at all times

### ***Knowledge and Understanding***

You need to know and understand:

1. how to select and use appropriate resources i.e. equipment, tools, materials, techniques and methods

2. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities, to include equipment to protect head, trunk, hands and feet
3. how to interpret work instructions and establish requirements
4. how to use application and setting out tools and equipment
5. how to identify and select template materials appropriate for the work to be completed and what the consequences are of not using appropriate template materials
6. what specified positioning and quality tolerances are and why these are important
7. types of positioning and securing devices and equipment and how they are used
8. what preparation techniques are selected and used for given jobs
9. what are the characteristics of self-adhesive materials and when to use self-adhesive materials
10. what are accepted sequences and combinations for applying adhesive materials onto other materials
11. what causes damage to products and how to prevent this, to include preventing contamination from equipment, environment, colleagues and passing goods
12. what are acceptable protection methods and when and how to use them
13. how to perform and monitor the self-adhesive operation
14. what faults, variations or problems may occur in the self-adhesive operation
15. how to make necessary adjustments within your permitted authority
16. who are the relevant personnel
17. what is regarded as waste and how to minimise it and remove it following approved methods
18. how to deal appropriately with products
19. what documentation is necessary
20. what legislation and organisational codes of practice are relevant
21. what are the consequences of not following legislation and organisational requirements
22. what Health and Safety and environmental requirements and legislation are relevant and how to follow them
23. what are the consequences to you and to others of not following Health and Safety and environmental legislation

**Assessor Comments/Feedback**

## **UNIT 3.17 SIGNAGE – PRODUCE FORMED PRODUCTS (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to produce formed materials and products. This involves obtaining the correct resources for the operation, identifying and preparing required template shapes, and performing the forming operation according to specification following approved quality and company procedures whilst minimising waste. Monitoring the forming operation, making any necessary adjustments within the limits of your responsibility, and finally dealing with the formed product appropriately.

This unit deals with the following:

1. Produce formed products

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. check and confirm that you have the correct work instructions and any relevant forming procedures and quality specifications
2. select and obtain the necessary resources for etching the materials to the specified requirements, including suitable PPE (Personal Protective Equipment)
3. position and secure suitable positioning and securing devices for the forming process
4. ensure that preliminary positioning, where used, is accurate and secure using suitable fastening and fixing methods and materials
5. perform the forming operation according to work instructions and safe operating/quality procedures
6. monitor and control the forming operation and identify any faults, variations and/or problems that occur
7. make any necessary adjustments within the limits of your authority
8. report any faults, variations and/or problems that you cannot solve and/or are not your responsibility to the relevant person
9. remove and dispose of waste materials safely using an approved method
10. deal appropriately with formed products and complete any necessary documentation
11. follow relevant health and safety and environmental requirements and legislation at all times

### ***Knowledge and Understanding***

You need to know and understand:

1. how to check that you have the correct work instructions and any relevant forming procedures and quality specification
2. how to determine equipment, tools, materials, techniques and methods needed to complete the activity

3. how to select and use appropriate resources i.e. equipment, tools, materials, techniques and methods to etch materials and products
4. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities, to include equipment to protect head, trunk, hands and feet
5. how to identify and use positioning and securing devices
6. what are preliminary positioning places and suitable fastening and fixing methods and materials
7. how to determine positioning, fastening and fixing methods and materials for the materials being formed
8. how to perform and monitor the forming operation
9. what the specified tolerances are and why these are important
10. what is regarded as acceptable quality and how is this achieved
11. how to deal with formed products appropriately i.e. bundled, batched and stored
12. what faults, variations or problems may occur in the forming operation
13. how to make necessary adjustments within your permitted authority
14. who are the relevant personnel
15. what is regarded as waste and how to minimise it and remove it following approved methods
16. how to deal appropriately with formed products
17. what documentation is necessary
18. what legislation and organisational codes of practice are relevant
19. what are the consequences of not following legislation and organisational requirements
20. what health and safety and environmental requirements and legislation are relevant and how to follow them
21. what are the consequences to you and to others of not following health and safety and environmental legislation

**Assessor Comments/Feedback**

## **UNIT 3.18 ASSEMBLE AND DISMANTLE ACCESS STRUCTURES IN SIGNMAKING (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to assemble and dismantle access structures. This involves setting up and securing access structures, and then dismantling and removing access structures.

N.B. This unit does not cover the competence required to operate hydraulic access lifts (e.g. cherry pickers).

This unit deals with the following:

1. Set up and secure access structures
2. Dismantle and remove access structures

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. check that the load bearing area on which structures will be sited is suitably prepared to take the access structure
2. select the most appropriate types of access structures for the work context and activity and establish suitable precautions
3. carry out the handling and positioning of access structures in the appropriate sequence to meet the required specification and schedule
4. set up structures in the best possible location for access to the required area
5. check that erected structures are safe, stable and usable in accordance with specifications
6. communicate with others in the work area effectively
7. follow relevant health and safety and environmental requirements and legislation at all times
8. prepare to dismantle access structures correctly and establish the appropriate precautions
9. dismantle access structures according to the relevant instructions and procedures
10. identify damage to and defects in, structure components and take the appropriate action
11. store and stack components safely, ready for future use
12. complete dismantling and removal according to schedule

### ***Knowledge and Understanding***

You need to know and understand:

1. access structure assembly methods and techniques
2. access structures and equipment
3. engineering products/assets

4. handling equipment, methods and techniques
5. information and documentation systems
6. legislation, regulations, standards and guidelines
7. specifications structure, format and content
8. what are the typical load-bearing capacities of the areas where structures are sited
9. what are the preparation processes that have to be undertaken
10. which access structures are suitable for specific work activities
11. what are the relevant Health and Safety requirements and procedures relating to the assembly and use of specific access structures
12. what is the handling and positioning sequence for different types of access structures
13. where should different access structures be positioned
14. what are the specifications relating to the assembly and use of specific access structures
15. who should be informed of the assembly activities and how
16. what legislation and organisational codes of practice are relevant
17. what are the consequences of not following legislation and organisational requirements
18. what health and safety and environmental requirements and legislation are relevant and how to follow them
19. what are the consequences to you and to others of not following health and safety and environmental legislation
20. access structure dismantling methods and techniques
21. how to prepare to dismantle specific access structures
22. what are the precautions that are associated with specific access structures
23. where to access information on dismantling instructions and procedures
24. what are the methods for dismantling specific access structures
25. what are the types of damage and defect that can occur with access structures during dismantling and how can this be minimised
26. where should components be stored
27. what are the timescales for the dismantling of access structures
28. what are the relevant health and safety requirements and procedures relating to the dismantling of specific access structures
29. who should be informed of the dismantling activities and how

**Assessor Comments/Feedback**

## **UNIT 3.21 SPECIFY AND PRODUCE GRAPHICAL IMAGES USING ICT – (INFORMATION COMMUNICATION TECHNOLOGY)**

**(Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to specify and produce graphical images using information technology. This involves agreeing the image with the client, creating and updating files, producing the image by manipulating data, sending the image to the correct destination and finally checking that the output is complete and meet's the client's requirements.

This unit deals with the following:

1. Specify graphical images
2. Create and update required files
3. Produce required graphical image by manipulating data
4. Output graphical image to destination

During this work you must take account of the relevant worksite operational requirements, procedures and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. agree and record client's image requirements
2. develop image options
3. agree the preferred image option with the client
4. identify sources of required data
5. obtain, when necessary authority to access data
6. follow relevant health and safety and environmental requirements and legislation at all times
7. identify and locate existing files and data to be updated
8. ensure that images are entered completely using the appropriate device correctly and within time constraints
9. take appropriate action to recover data in the event of file or data corruption
10. use the correct available automated procedures for image entry or checking
11. save files which are created or updated according to organisational standards
12. use appropriate facilities to enter, select and combine stored images correctly to meet requirements
13. select and use facilities correctly to manipulate image
14. ensure that additional elements are added correctly to meet requirements
15. amend attributes correctly to meet requirements
16. check that the graphical image is complete and to client's requirements
17. select destination device and materials which are suitable for document purpose

18. check that the destination device is ready to receive output
19. within the limits of your authority take remedial action if an unready condition occurs
20. check that the graphical image is complete and correct prior to output
21. ensure that output parameters are identified and set up correctly to meet output requirements
22. check that output is complete and meets client's requirements

### ***Knowledge and Understanding***

You need to know and understand:

1. software available to produce graphical images
2. types of image
3. standard image formats and layouts
4. options available for format and layout
5. sources of data
6. area of own responsibility and relevant reporting authority
7. organisation's standards applicable to accessing data
8. who are clients
9. what problems may occur
10. what is the appropriate action to take if there are problems
11. what legislation and organisational codes of practice are relevant
12. what are the consequences of not following legislation and organisational requirements
13. what health and safety and environmental requirements and legislation are relevant and how to follow them
14. what are the consequences to you and to others of not following health and safety and environmental legislation
15. methods of producing bitmap and vector images
16. methods of saving and locating files
17. methods of using file operations
18. methods of using input devices
19. available procedures for automating data entering and checking
20. methods of recovering from file or data corruption
21. software available to produce images
22. standards used for producing images
23. software functions for formatting images
24. software functions for image layout
25. software functions for manipulating images

**Assessor Comments/Feedback**

## **UNIT 3.22 ESTABLISH AND DEVELOP DETAILED DESIGN WORK FOR SIGNMAKING (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge you will need to establish and develop detailed design work. This involves defining and agreeing resource requirements to develop the design, preparing your schedule of work for developing the design and finally preparing the final artwork/drawings.

This unit deals with the following:

1. Define and agree resource requirements to develop design
2. Prepare own schedule of work for developing design
3. Prepare final artwork/drawings

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. discuss and agree the limits of your responsibility for required work programme
2. identify your areas of work within overall programme
3. ensure that the skills necessary to complete each work area are clearly and accurately identified
4. when required, identify and obtain costs from outside agencies that have the skills necessary to undertake the work
5. clearly present proposals for action, with details of all costs involved
6. follow relevant health and safety and environmental requirements and legislation at all times
7. identify and prioritise tasks
8. prepare the schedule of work for developing design in an appropriate format
9. ensure that the schedule takes account of on-going design priorities
10. disseminate the schedule to all relevant personnel
11. identify changes and priorities and adapt the schedule accordingly
12. establish monitoring arrangements to ensure programme is completed to timetable
13. discuss and agree the format for final artwork
14. prepare detailed final working drawings/plans
15. where appropriate, prepare scaled models
16. discuss and agree the final design work

### ***Knowledge and Understanding***

You need to know and understand:

1. how to produce typographical layouts
2. how to apply visualisation techniques
3. methods to use to estimate resources involved in: printing and production process for graphic design; using colours within the production process; complex computer systems; software
4. how to use computer programming and desktop publishing
5. how to apply communication design in context
6. how to conduct skills analysis
7. how to invite tenders
8. how to prepare costs
9. the limits of personal responsibility within organisation
10. the Law in relation to published, printed and electronic material
11. the access, types and sources of information on: finance; legal or regulatory requirements of relevance to country of sale; printing and production process within graphic design; new technology and media used within graphic design; organisations or individuals capable of undertaking specialist areas of work
12. what problems may occur
13. what is the appropriate action to take if there are problems
14. what legislation and organisational codes of practice are relevant

### **Assessor Comments/Feedback**

## **UNIT 3.24 PRODUCE TRAFFIC SIGNFACE DESIGNS USING SPECIFIC COMPUTER SOFTWARE (Level 6, 9 Credits)**

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### **Unit Overview**

This unit describes the activities and procedures undertaken when creating or processing Traffic Signface designs (both permanent and temporary) using recognised industry specific computer software. The unit covers Department for Transport regulations and design rules, which are essential to this unit, plus general techniques used in the production and manipulation of signface designs to enable the candidate to demonstrate competence at this level.

The candidate will be expected to demonstrate, through practical application, knowledge and understanding of all the legislation relevant to their working environment.

This unit deals with the following:

1. Understand customer's traffic signface requirements
2. Create and update required files
3. Produce traffic signface design
4. Output traffic signface design to destination

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. obtain and understand customer design requirements
2. record customer design requirements using appropriate method
3. develop design options
4. identify Traffic Signface Design rules and regulations which apply to the design
5. agree preferred design option with the customer
6. understand the scope of your own responsibility and authority
7. follow relevant health and safety and environmental requirements and legislation at all times
8. identify and locate existing files and data to be updated
9. enter designs using appropriate device within time schedule
10. follow procedures for computer "back up" and take the appropriate action if file or data corruption occurs
11. identify who is responsible for updating virus software and computer maintenance
12. use available automated procedures for design entry or checking
13. save any files created or updated according to company or organisation's procedures
14. use the appropriate procedures to enter, select and combine stored designs
15. select and use software functions correctly to manipulate image

16. use appropriate design rules when regulatory or warning sign designs are combined on directional signs
17. produce signface design, incorporating roundabout and/or other designs
18. check that the signface design conforms to regulations, design rules and customer requirements
19. select the destination device and materials which are suitable for purpose
20. check the destination device to ensure that it is ready to receive output
21. take the appropriate action if problems occur
22. check that the sign design is complete and correct prior to output
23. ensure that output parameters are identified and set up correctly to meet output requirements
24. check that the output is complete and meets customer requirements

### ***Knowledge and Understanding***

You need to know and understand:

1. current relevant design information for Traffic Signs
2. current TSRGD (Traffic Signs Regulations and General Directions)
3. current working drawings for Traffic Sign design and manufacturing
4. design parameters including x- heights and stroke widths
5. the location of stored designs
6. what is the area of own responsibility and relevant reporting authority
7. how to obtain and understand customer requirements
8. how to develop design options
9. how to agree preferred design option with the customer
10. what are the Company/Organisation's procedures applicable to accessing data, such as Internet
11. the types of compatible formats that can be used to store signface design information
12. who are the relevant personnel
13. what problems may occur
14. what is the appropriate action to take if there are problems
15. what legislation and organisational codes of practice are relevant
16. what are the consequences of not following legislation and organisational requirements
17. what health and safety and environmental requirements and legislation are relevant and how to follow them
18. what are the consequences to you and to others of not following health and safety and environmental legislation
19. what methods to use to produce Traffic Signface design
20. how to use industry specific software
21. what methods of using bitmap and vector images should be used

22. what are the methods used for saving and locating design files
23. what methods of using input devices and scanning for viruses should be used
24. what are the available procedures for automating designs and checking
25. what methods of recovering from file or data corruption should be used
26. who is responsible for updating virus software and computer maintenance
27. what industry specific Traffic Signface design software is available to produce designs
28. what are the customer requirements
29. what are the industry design criteria that should be used for producing designs
30. what are the relevant design rules that need to be followed when producing drawings
31. what software functions should be used for inputting text and selecting symbols
32. what software functions should be used for design layout
33. what software functions should be used for displaying signs
34. how to check that the signface conforms to customer requirements
35. the types of destination devices that are available to you
36. the methods of using hard copy devices
37. what methods of using file storage devices should be used
38. what methods of communicating with selected device for printing or cutting signface design should be used
39. what methods can be used to check output
40. what materials are available for hard copy output and which is the correct material to choose
41. what problems may occur and what is the appropriate action to take within the limits of your own responsibility
42. how to check that the signface conforms to customer requirements and Industry regulations

**Assessor Comments/Feedback**

## **UNIT 3.10 SIGNAGE – PRODUCE JOINED PRODUCTS (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to join materials and products during signage operations. This involves obtaining the correct resources for the joining operation, setting out the materials for bonding and assembling materials according to specification taking account of all quality and company procedures, whilst minimising waste. Monitoring the joining operation, making any necessary adjustments within the limits of your responsibility, and finally dealing with the joined product appropriately.

This unit deals with the following:

1. Bond materials to specification
2. Assemble materials to specification

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. obtain the correct work instructions and any relevant bonding procedures and quality specifications
2. select and obtain the necessary resources for joining the materials to the specified requirements, including suitable PPE (Personal Protective Equipment)
3. when necessary, position and secure devices for bonding materials together
4. ensure that materials to be bonded are of the specified dimensions and are positioned, assembled and layered in the correct order within specified tolerances
5. perform the bonding operation according to work instructions and safe operating/quality procedures
6. monitor and control the bonding operation and identify any faults, variations and/or problems that occur
7. make any necessary adjustments within the limits of your authority
8. report any faults, variations and/or problems that you cannot solve and/or are not your responsibility to the relevant person
9. remove and dispose of waste materials safely using an approved method
10. deal appropriately with bonded products and complete any necessary documentation
11. follow relevant health and safety and environmental requirements and legislation at all times
12. obtain the correct work instructions and any relevant assembly procedures and quality specifications
13. select and obtain the necessary resources for assembling the materials to the specified requirements, including suitable PPE (Personal Protective Equipment)
14. position and secure devices prior to assembly of materials
15. ensure that the materials to be assembled are of the specified dimensions and are positioned and layered in the correct order within specified tolerances

16. perform the assembly operation according to work instructions and safe operating procedures
17. monitor and control the assembly operation and identify any faults, variations and/or problems that occur
18. make any necessary adjustments within the limits of your authority
19. report any faults, variations and/or problems that you cannot solve and/or are not your responsibility to the relevant person
20. remove and dispose of waste materials safely using an approved method
21. deal appropriately with assembled products and complete any necessary documentation

### ***Knowledge and Understanding***

You need to know and understand:

1. how to obtain the correct work instructions and any relevant bonding procedures and quality specification
2. how to ensure that you have the appropriate equipment, tools, materials, techniques and methods needed to complete the activity
3. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities, to include equipment to protect head, trunk, hands and feet
4. what are appropriate securing and fixing devices for the materials being bonded and how to use them
5. what are acceptable methods for bonding materials and how to perform them
6. what are acceptable tolerances to work within for different types of materials
7. what is regarded as acceptable quality and how to meet that requirement
8. how to perform and monitor the bonding operation
9. what faults, variation or problems may occur in the bonding operation
10. how to make necessary adjustments within your permitted authority
11. who are the relevant personnel
12. what is regarded as waste and how to minimise it and remove it following approved methods
13. how to deal appropriately with bonded products
14. what documentation is necessary
15. what legislation and organisational codes of practice are relevant
16. what are the consequences of not following legislation and organisational requirements
17. what health and safety and environmental requirements and legislation are relevant and how to follow them
18. what are the consequences to you and to others of not following health and safety and environmental legislation
19. how to obtain the correct work instructions and any relevant assembly procedures and quality specification
20. how to determine equipment, tools, materials, techniques and methods needed to complete the activity
21. how to select and use appropriate resources i.e. equipment, tools, materials, techniques and methods to etch materials and products
22. how to identify, position and use securing and fixing devices

23. what are the relevant techniques and methods for assembling materials and how to perform them
24. how to perform and monitor the assembly operation
25. what faults, variations or problems may occur in the assembly operation
26. how to deal appropriately with assembled products

**Assessor Comments/Feedback**

## **UNIT 3.11 SIGNAGE – PRODUCE ENGRAVED PRODUCTS (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to engrave materials and products to decorate signs. This involves obtaining the correct resources for the engraving operation, identifying and pre-marking areas to be engraved, and performing the engraving operation according to specification following approved quality and company procedures, whilst minimising waste. Monitoring the engraving operation, making any necessary adjustments within the limits of your responsibility, and finally dealing with the engraved product appropriately.

This unit deals with the following:

1. Produce engraved products

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. select and obtain the necessary resources for engraving the materials to the specified requirements, including suitable PPE (Personal Protective Equipment)
2. identify required template shapes for masking, measure and where necessary, cut and then position on the material to be engraved
3. identify any defects/problems with the surface to be engraved prior to operation and take the appropriate action
4. identify and pre-mark the areas to be engraved using an accepted and appropriate method
5. perform the engraving operation according to specification following approved quality procedures and protect the surrounding areas from damage
6. ensure that the correct lubricants and coolants are used at the appropriate time to minimise damage to materials, tools and equipment
7. monitor and control the engraving operation and identify any faults, variations and/or problems that occur
8. make any necessary adjustments within the limits of your authority
9. report any faults, variations and/or problems that you cannot solve and/or are not your responsibility to the relevant person
10. remove and dispose of waste materials safely using an approved method
11. deal appropriately with engraved products and complete any necessary documentation
12. follow relevant health and safety and environmental requirements and legislation at all times

### ***Knowledge and Understanding***

You need to know and understand:

1. how to determine the resources i.e. equipment, tools, materials, techniques and methods needed to complete the activity
2. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities, to include equipment to protect head, trunk, hands and feet
3. how to measure shapes accurately and draw them onto a suitable template material
4. how to identify and select template materials appropriate for the work to be completed and what the consequences are of not using appropriate template material
5. what are acceptable pre-marking methods and why
6. how and why surrounding areas should be protected from damage
7. what the specified requirements and positioning and quality tolerances are and why these are important
8. what is regarded as acceptable quality
9. when and why lubricants and coolants are used and which to use
10. how to minimise damage caused by the environment, colleagues and passing goods
11. what is regarded as waste and how to minimise and remove it following approved methods
12. how to perform and monitor the engraving operation
13. what faults, variations or problems may occur in the engraving operation
14. how to make necessary adjustments within your permitted authority
15. who are the relevant personnel
16. how to deal appropriately with engraved products
17. what documentation is necessary
18. what legislation and organisational codes of practice are relevant
19. what are the consequences of not following legislation and organisational requirements
20. what health and safety and environmental requirements and legislation are relevant and how to follow them
21. what are the consequences to you and to others of not following health and safety and environmental legislation

### **Assessor Comments/Feedback**

## **UNIT 3.12 SIGNAGE – PRODUCE ETCHED PRODUCTS (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to etch materials and products. This involves obtaining the correct resources for the etching operation, identifying and pre-marking areas to be etched, and performing the etching operation according to specification following approved quality and company procedures, whilst minimising waste. Monitoring the etching operation, making any necessary adjustments within the limits of your responsibility, and finally dealing with the etched product appropriately.

This unit deals with the following:

1. Produce etched products

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. select and obtain the necessary resources for etching the materials to the specified requirements, including suitable PPE (Personal Protective Equipment)
2. identify required template shapes for masking, measure and where necessary, cut and then position on the material to be etched
3. identify any defects/problems with the surface to be etched prior to operation and take the appropriate action
4. ensure that the areas to be etched are identified and pre-marked using an accepted method and protect the surrounding areas from damage
5. select the correct etching agent and ensure it is suitable to meet the specification
6. perform the etching operation according to specification following quality procedures
7. monitor and control the etching operation and identify any faults, variations and/or problems that occur
8. make any necessary adjustments within the limits of your authority
9. report any faults, variations and/or problems that you cannot solve and/or are not your responsibility to the relevant person
10. remove and dispose of waste materials safely using an approved method
11. deal appropriately with etched products and complete any necessary documentation
12. follow relevant health and safety and environmental requirements and legislation at all times

### ***Knowledge and Understanding***

You need to know and understand:

1. how to determine equipment, tools, materials, techniques and methods needed to complete the activity

2. how to select and use appropriate resources i.e. equipment, tools, materials, techniques and methods to etch materials and products
3. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities, to include equipment to protect head, trunk, hands and feet
4. how to identify and select masking materials appropriate for the work to be completed and what the consequences are of not using appropriate masking materials
5. how to accurately measure and draw shapes onto a suitable masking material
6. how to cut and position masking shapes
7. the types of defects and how to identify and rectify them
8. what are acceptable pre-marking methods
9. what the specified requirements and positioning and quality tolerances are and why these are important
10. what is regarded as acceptable quality
11. why etching agents are used and how and when to use them
12. how to perform and monitor the etching operation
13. what faults, variations or problems may occur in the etching operation
14. how to make necessary adjustments within your permitted authority
15. who are the relevant personnel
16. what is regarded as waste and how to minimise it and remove it following approved methods
17. how to deal appropriately with etched products
18. what documentation is necessary
19. what legislation and organisational codes of practice are relevant
20. what are the consequences of not following legislation and organisational requirements
21. what health and safety and environmental requirements and legislation are relevant and how to follow them
22. what are the consequences to you and to others of not following health and safety and environmental legislation

**Assessor Comments/Feedback**

## **UNIT 3.13 SIGNAGE – PRODUCE HAND DECORATED PRODUCTS (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to hand decorate materials and products. This involves obtaining the correct resources for the operation, identifying and preparing required template shapes, carrying out preparation, hand decorating by applying the correct treatments, coatings and colours according to specification following approved quality and company procedures whilst minimising waste. Monitoring the hand operation, making any necessary adjustments within the limits of your responsibility, and finally dealing with the hand decorated product appropriately.

This unit deals with the following:

1. Produce hand decorated products

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. select and obtain the necessary resources for hand decorating the materials to the specified requirements, including suitable PPE (Personal Protective Equipment)
2. identify required template shapes, measure and where necessary, cut and then position On the materials to be decorated
3. ensure that the substrate is suitably prepared to receive subsequent treatments and coatings
4. select and carry out the relevant preparation technique to match the materials being used
5. perform the hand decorating operation according to specification following approved quality procedures and ensure that the time left between treatments and coatings meets manufacturers' recommendations
6. monitor and control the hand operation and identify any faults, variations and/or problems that occur
7. make any necessary adjustments within the limits of your authority
8. report any faults, variations and/or problems that you cannot solve and/or are not your responsibility to the relevant person
9. protect surfaces from damage using an accepted method
10. remove and dispose of waste materials safely using an approved method
11. deal appropriately with hand decorated products and complete any necessary documentation
12. follow relevant health and safety and environmental requirements and legislation at all times

### ***Knowledge and Understanding***

You need to know and understand:

1. how to determine equipment, tools, materials, techniques and methods needed to complete the activity

2. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities, to include equipment to protect head, trunk, hands and feet
3. how to compare and contrast resources specified in work instruction with actual requirements
4. what are suitable resources i.e. equipment, tools, materials, techniques and methods
5. how to measure shapes accurately and draw them onto a suitable template material
6. how to identify and select template materials appropriate for the work to be completed and what the consequences are of not using the appropriate template material
7. what the specified positioning and quality tolerances are and why these are important
8. how to select the appropriate techniques for preparing materials and treatments for different types of substrates and how their characteristics affect the preparation and choice of coating
9. how and when to apply coatings
10. what are accepted sequences and combinations for applying coatings
11. how to minimise damage caused by the environment, colleagues, equipment and passing goods
12. how to perform and monitor the hand operation
13. what faults, variations or problems may occur in the hand operation
14. how to make necessary adjustments within your permitted authority
15. who are the relevant personnel
16. what is regarded as waste and how to minimise and remove it following approved methods
17. how to deal appropriately with hand decorated products
18. what documentation is necessary
19. what legislation and organisational codes of practice are relevant
20. what are the consequences of not following legislation and organisational requirements
21. what health and safety and environmental requirements and legislation are relevant and how to follow them
22. what are the consequences to you and to others of not following health and safety and environmental legislation

**Assessor Comments/Feedback**

## **UNIT 3.14 SIGNAGE – PRODUCE SPRAY PAINTED PRODUCTS (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to spray paint products. This involves obtaining the correct resources for the spray painting operation, identifying and pre-marking areas to be spray painted, and performing the spray painting operation according to specification following approved quality and company procedures, whilst minimising waste. Monitoring the spray painting operation, making any necessary adjustments within the limits of your responsibility, and finally dealing with the spray painted product appropriately.

This unit deals with the following:

1. Produce spray painted products

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. select and obtain the necessary resources for spray painting the materials to the specified requirements, including suitable PPE (Personal Protective Equipment)
2. identify required template shapes, measure and where necessary, cut and then position on the materials to be painted
3. ensure that the substrate is suitably prepared to receive subsequent treatments and coatings
4. select and carry out the relevant preparation technique to match the materials being used
5. perform the spray painting operation according to specification following quality procedures
6. monitor and control the spray painting operation and identify any faults, variations and/or problems that occur
7. make any necessary adjustments within the limits of your authority
8. report any faults, variations and/or problems that you cannot solve and/or are not your responsibility to the relevant person
9. make sure that the time left between treatments and coatings meets manufacturers' recommendations and protect surfaces from damage using an accepted method
10. remove and dispose of waste materials safely using an approved method
11. deal appropriately with spray painted products and complete any necessary documentation
12. follow relevant health and safety and environmental requirements and legislation at all times

### ***Knowledge and Understanding***

You need to know and understand:

1. how to determine equipment, tools, materials, techniques and methods needed to complete the activity

2. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities, to include equipment to protect head, (respiratory system) trunk, hands and feet
3. how to interpret work instructions
4. what are suitable spray painting tools and equipment for given jobs
5. how to use spray painting tools and equipment
6. how to measure shapes accurately and draw them onto a suitable template material
7. how to identify and select template materials appropriate for the work to be completed and what the consequences are of not using the appropriate template material
8. what specified positioning and quality tolerances are and why these are important
9. how to select the appropriate technique for preparing materials and treatments
10. different types of substrates and how their characteristics affect the preparation and choice of coating
11. how and when to apply coatings
12. what are acceptable protection methods and when and how to use them
13. how to prevent contamination from equipment, environment, colleagues and passing goods
14. how to perform and monitor the spray painting operation
15. what faults, variation or problems may occur in the spray painting operation
16. how to make necessary adjustments within your permitted authority
17. who are the relevant personnel
18. what is regarded as waste and how to minimise it and remove it following approved methods
19. how to deal appropriately with spray painted products
20. what documentation is necessary
21. what legislation and organisational codes of practice are relevant
22. what are the consequences of not following legislation and organisational requirements
23. what health and safety and environmental requirements and legislation are relevant and how to follow them
24. what are the consequences to you and to others of not following health and safety and environmental legislation

**Assessor Comments/Feedback**

## **UNIT 3.15 SIGNAGE – PRODUCE SCREEN PRINTED PRODUCTS (Level 6, 7 Credits)**

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### **Unit Overview**

This unit covers the skills and knowledge that you will need to screen print products. This involves obtaining the correct resources for the screen printing operation, identifying and pre-marking areas to be screen printed, and performing the screen printing operation according to specification following approved quality and company procedures, whilst minimising waste. Monitoring the screen printing operation, making any necessary adjustments within the limits of your responsibility, and finally dealing with the screen printed product appropriately.

This unit deals with the following:

1. Produce screen printed products

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

### ***Performance Criteria***

You must be able to:

1. select and obtain the necessary resources for inking the materials to the specified requirements, including suitable PPE (Personal Protective Equipment)
2. select and use the appropriate stencil and equipment preparation techniques that match the materials and substrate
3. select and use suitable tools and equipment according to manufacturers' instructions and safety requirements
4. position and secure devices and equipment
5. when appropriate, set out materials to the specified tension without distortion
6. perform the screen printing operation according to specification following quality procedures and protect surfaces from damage
7. monitor and control the screen printing operation and identify any faults, variations and/or problems that occur
8. make any necessary adjustments within the limits of your authority
9. report any faults, variations and/or problems that you cannot solve and/or are not your responsibility to the relevant person
10. remove and dispose of waste materials safely using an approved method
11. deal appropriately with screen printed products and complete any necessary documentation
12. follow relevant health and safety and environmental requirements and legislation at all times

### ***Knowledge and Understanding***

You need to know and understand:

1. how to determine equipment, tools, materials, techniques and methods needed to complete the activity
2. how to select and use appropriate resources i.e. equipment, tools, materials, techniques and methods to screen print sign materials and products

3. how to identify and determine the appropriateness of PPE (Personal Protective Equipment) for work activities, to include equipment to protect head, (respiratory system) trunk, hands and feet
4. how to interpret work instructions and establish requirements
5. what are suitable screen printing tools and equipment for given jobs, to include organic and nonorganic mesh stencil equipment
6. how to use screen printing and setting out tools and equipment
7. what the specified positioning and quality tolerances are and why these are important
8. what different types of positioning and securing devices and equipment are used for
9. how to use positioning and securing devices and equipment
10. what the characteristics of inks are and how this affects their use
11. what the different methods are of applying inks
12. how to perform and monitor the screen printing operation
13. what faults, variation or problems may occur in the screen printing operation
14. how to make necessary adjustments within your permitted authority
15. who are the relevant personnel
16. what is regarded as waste and how to minimise it and remove it following approved methods
17. how to deal appropriately with screen printed products
18. what causes damage to products and how to prevent this, to include preventing contamination from equipment, environment, colleagues and passing goods
19. what are acceptable protection methods and when and how to use them
20. what documentation is necessary
21. what legislation and organisational codes of practice are relevant
22. what are the consequences of not following legislation and organisational requirements
23. what health and safety and environmental requirements and legislation are relevant and how to follow them
24. what are the consequences to you and to others of not following health and safety and environmental legislation

**Assessor Comments/Feedback**

# **NOTES**



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