GQA Level 3 NVQ Diploma in Glass Processing

Qualification Number

501/2393/2

Issue 3: March 2017

GQA Qualifications, Unit 1, 12 O'Clock Court, Attercliffe Road, Sheffield, S4 7WW
Tel: 0114 272 0033/272 0080
Email: info@gqaqualifications.com Website: www.gqaqualifications.com

PERSONAL COMPETENCE SUMMARY

Name	Company/Centre
Job Title	GQA Registration Number

	UNITS OF COMPETENCE			ASSESSOR SIGNATURE Performance and knowledge assessment completed and supplemented with evidence overtime	DATE
Unit Number	**Group A - MANDATORY UNITS**	**Level**	**Credit**		
AG2 T/600/7363	Promote and Maintain Health and Safety in a Glass or Glass Related Working Environment	3	4		
FIS2 R/600/8262	Improve the Work of the Organisation through the use of Resources, Communication and Working Relationships in a Glass or Glass Related Working Environment	3	5		
AG13 J/600/7657	Identify and Rectify Technical Problems in a Glass or Glass Related Working Environment	3	5		
GP4 F/600/7995	Prepare and Operate Machinery/Tools in Glass Processing	2	6		
Group B - Optional Units (A minimum of 10 credits to be achieved)					
Group C - Optional Units (A minimum of 7 credits to be achieved)					
Additional Unit (If achieved this unit will appear on the qualification certificate but will not count towards completion of the minimum credit value of the qualification)					

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

Observation in the workplace	☐	Assessment of knowledge	☐
Records of prior experience	☐	Witness statement(s)	☐
Testimonial(s)	☐	Photographic evidence	☐
Work records		External testing	

Passport Style Candidate Photo (Mandatory)

COMPETENCE COMPLETION SIGNATURES

By signing here, the Candidate and Assessor confirm that evidence presented is authentic and that the assessments took place in accordance with the relevant assessment strategy. Details of the assessments and evidence must be recorded in the assessment decision record/summaries at the end of each unit.

	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 to produce products from glass and related materials in the glass processing sector. This covers the handling of products throughout the process. Units in this qualification cover cutting, shaping, assembling and finishing the products, including decoration. It is not expected that glass processors all do the same activities: the qualification is structured to ensure that there is a high degree of flexibility in the qualification. The standard covers the most important aspects of the job. This qualification is at Level 3, although there may be units at different levels, and should be taken by those who are experienced glass processors, capable of dealing with a wide range of issues, including the identification and rectification of technical problems and working with a wide range of glass types. Candidates may be required to show the skills and knowledge to assess products or work procedures and identify possible improvements, and may also be responsible for setting up glass processing machinery.
Other qualifications are available in glass processing and related occupations – for further information check www.gqaqualifications.com

Candidates for this qualification will primarily be:
• working in glass processing operations and working with glass and glass-related materials or semi-finished products

Candidates are likely to have jobs entitled:
• Autoclave operator
• Craft glass worker
• Double glazing unit maker
• Glass cutter
• Glass decorator
• Glass painter
• Glass processor
• Laminated glass manufacturer
• Leaded light maker
• Processor
• Sealed unit maker
• Screen printer
• Toughener
• Window film applicator

What is required from candidates?

This qualification has a group of 4 mandatory units, and 2 groups of optional units and 1 additional unit. To complete this qualification a minimum of 37 credits must be achieved, 20 from the mandatory units, a minimum of 10 credits from Group B and a minimum of 7 credits from optional Group C.

Unit no	Mandatory units	Level	Credit
AG2 T/600/7363	Promote and maintain Health and Safety in a glass or glass related working environment	3	4
FIS2 R/600/8262	Improve the work of the organisation through the use of resources, communication, and working relationships in a glass or glass related working environment	3	5
AG13 J/600/7657	Identify and rectify technical problems in a glass or glass related working environment	3	5
GP4 F/600/7995	Prepare and operate machinery/tools in glass processing	2	6
Group B - Optional Units (A minimum of 10 credits to be achieved)			
AG11 K/600/7652	Develop New Work Procedures in a Glass or Glass Related Working Environment	3	5
GP10 M/602/6168	Set up equipment for use in glass processing	3	6
FGSS18 Y/600/8408	Monitor and control operations in a glass or glass related working environment	3	5
AG12 A/600/7655	Assess the quality of materials and components in a glass or glass related working environment	3	4
Group C - Optional Units (A minimum of 7 credits to be achieved)			
GP8 Y/600/8389	Shape products and materials in glass processing	2	2
GP9 D/600/8393	Prepare and assemble products and materials in glass processing	2	5

GP11	Process glass products by removing materials	2	5
T/600/8397			
GP12	Decorate glass products by applying additional material	2	5
A/600/8031			
GP14	Toughened glass production	3	7
K/503/6705			
GP30	Glass Edge sealing	2	2
K/600/8381			
GP2	Glass cutting in a range of glass types	3	8
D/601/5327			
GP27	UV Glass Bonding	2	5
R/615/2913			
GP28	In situ glass surface restoration	3	7
L/615/2912			
Additional Unit (If achieved this unit will appear on the qualification certificate but will not count towards completion of the minimum credit value of the qualification)			
PV3	Use Access equipment to work at heights	2	4
D/502/9721			

Assessment guidance

Evidence should show that you can complete all of the learning outcomes for each unit being taken.

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 though performance or by responding to questions.

Quantity of evidence:

Evidence should show that you can meet the requirements of the units in a way that demonstrates that the standards can be achieved consistently over an appropriate period of time.

Potential sources of evidence:

The main source of evidence for each unit will be observation of the candidate's performance and knowledge demonstrated during the completion of the unit. This can be supplemented by the following types of physical or documentary evidence:

- Accident book/reporting systems
- Safety records
- Training records
- Audio records
- Job specifications and documentation
- Delivery Records
- Witness testimonies
- Correspondence with customers
- Notes and memos
- Photo/video evidence
- Work diaries
- Timesheets
- Telephone Logs
- Meeting records
- Records of toolbox talks
- Equipment
- Prepared materials and sites
- Completed work

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 EQA.

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 verification 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 EV's 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

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 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.

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

Collation of Evidence for Level 3 Qualifications

The definition of a Level 3 NVQ/SVQ is that competence in a broad range of varied work activities is performed in a wide variety of contexts, most of which are complex and non-routine. There is considerable responsibility and autonomy, and control or guidance of others is often required.

By the very nature of this, it is anticipated that Level 3 candidates will be able to provide evidence of their achievement drawn from successful work activities or projects, in other words, real examples of their work over time and range. All evidence should be dated, signed and authenticated/authorised by a recognised responsible person.

The following comments will help in the planning of evidence collection for Level 3 qualifications:

- Level 3 assessments are not normally carried out by the use of checklists
- Level 3 candidates are encouraged to provide evidence of their achievements drawn from their actual current work activities
- In many cases, evidence of achievement is not difficult to find
- Level 3 candidates should produce a CV that clearly indicates their relevant experience and achievement that contribute to the qualification
- A collation of evidence in the form of a Level 3 portfolio may be used to demonstrate competence against the standard
- The evidence must be cross referenced against the NVQ/SVQ standard (and where necessary justified)
- It may be appropriate for Level 3 candidates to undertake the related Level 2 qualification or some Level 2 units as a milestone/interim qualification
- Level 3 qualifications may include units of competence from Level 2 qualifications. If the candidate has already achieved any unit(s) and is regarded as currently competent then he/she will not be required to be reassessed on the same unit(s)
- Assessors will need to carry out performance and knowledge assessments for units/elements/pcs etc but the need for ongoing formal observations should not be as great if the candidate has produced a quality portfolio.

Some aspects of evidence may be subjected to independent assessment or enhanced external verification to satisfy the requirements of the standards setting body's assessment strategy

Candidate Declaration

Candidate Name.....

Centre/Company Name.....

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

I acknowledge receipt of this copy of GQA qualification booklet. The unit structure provides information on which units must be achieved to be awarded the qualification. The individual units detail in 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 have been informed of the appeals system, 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's/centre's Equal Opportunities Policy.

Candidate signature.....

Date.....

Guidance on the format of a unit

This is an example of a Unit of competence

The Unit has a title clearly explaining what the unit is concerned with

There is an explanation of what the unit is about

Each unit has a level, this indicates the difficulty of the unit

Each unit has a credit value; based on how long it would take to get the skills and knowledge needed to complete the unit

REPAIR DAMAGED WINDSCREEN GLASS IN VEHICLES	
To complete this unit you need to have the knowledge and skills to carry out windscreen repairs. You need to know about the code of practice for repairing damaged windscreens and how to identify and confirm the damage with the customer. You need to know why it is important to identify the zone where the damage is, and also give the customer any relevant information, including any further actions needed.	
Level and Credit Value: Level 2, 5 Credits	
1. Know the industry code of practice relating to windscreen repair.	1.1 Name the industry code of practice referring to windscreen repairs and explain what this means in practice.
2. Be able to correctly identify the type of windscreen damage and confirm this with the customer.	2.1 Correctly identify the type of windscreen damage. 2.2 Correctly identify the zone in which the damage lies 2.3 Correctly determine the feasibility of repair. 2.4 Clearly inform the customer of the action required, the risks involved, customer expectations and obtain customer's agreement and confirmation of this action.
3. Be able to correctly carry out windscreen repair.	3.1 Select the correct equipment to carry out the repair.
	3.2 Select the correct materials.
	3.3 Correctly carry out the repair minimising the time the vehicle is not operational
4. Be able to correctly record information on the repair of damaged windscreens.	4.1 Correctly record information on the repair of damaged windscreens

The first column contains learning outcomes, these set out what you need to be able to do or what you need to know.
(This example has been reduced in the number of learning outcomes in the actual qualification unit to fit the space available)

The second column sets out the assessment criteria. This explains what you need to do to prove to you assessor that you have the skills and knowledge required, your assessor will decide and explain how much and what type of evidence will be required.

Production/Process Activity Guideline

To aid new or established workers, a centre may wish to describe a normal production/process activity relevant to the achievement of the national vocational qualification and identify which units/elements it will contribute to, e.g. the act of preparation for work, implementation and completion will contribute to a number of units of competence.

Production/Process Activity Relevant to the Achievement of this Qualification	Contributory to: Units/Elements

T/600/7363 AG2	Promote and Maintain Health and Safety in a Glass or Glass Related Working Environment	Level 3	4 Credits

The aim of this unit is to provide the learner with the knowledge and skills to work safely in the glass or glass related environment, to be able to carry out the correct actions should an accident or emergency occur and to promote and develop safe working practices. The learner will also be required to show awareness of associated problems that can occur and possible solutions.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know which acts, regulations and guidelines apply to the glass or glass related working environment.	1.1 State which acts, regulations and guidelines apply to the glass or glass related working environment.			
	1.2 Explain how these acts, regulations and guidelines apply to the glass or glass related working environment.			
2. Know how to monitor and implement changes in health and safety acts, regulations and guidelines.	2.1 Explain how to monitor changes in health and safety acts, regulations and guidelines, to include: • Accessing HSE information • Receiving training updates			
	2.2 Explain how to introduce and implement changes.			
	2.3 Explain how to monitor the implementation of changes in health and safety to the working environment.			
3. Know how to carry out a formal assessment of hazards and risks in the glass or glass related working environment and the types of risk or hazards that exist.	3.1 Describe the steps in carrying out a formal risk assessment.			
	3.2 Explain how to record the findings and why recording is important.			
	3.3 Explain who should be made aware of the findings and how.			
	3.4 Explain why it is important to inform the relevant people of the findings.			
	3.5 Give 3 examples of risks or hazards that can occur in your working environment.			
4. Be able to identify hazards and assess risks in the glass or glass related working environment.	4.1 Carry out an accurate risk assessment of the glass or glass related working environment.			
	4.2 Report the findings to the correct authority.			
5. Be able to adopt a safe method of work.	5.1 Plan and organise a safe method of work.			
	5.2 Correctly select and use personal protective equipment.			
	5.3 Correctly select and use tools and equipment, to include: • Hand tools • Power tools			
	5.4 Correctly select and use glass and glass related materials.			
6. Know how to ensure there is no unauthorised or unsafe access to the working areas.	6.1 Explain how to establish if a person is authorised to enter the work area.			
	6.2 Explain how to ensure that authorised people entering the work area are kept safe.			
7. Know how to monitor colleagues to ensure they comply with health and safety requirements.	7.1 Explain how to monitor colleagues to ensure they comply with health and safety requirements.			

Assessor comments/feedback

T/600/7363 AG2	Promote and Maintain Health and Safety in a Glass or Glass Related Working Environment (continued)	Level 3	4 Credits

8. Know what to do in the event of accidents or emergencies.	8.1 Describe the correct procedure to follow in the case of an accident.			
	8.2 Describe the correct procedure to follow in the case of an emergency.			
	8.3 Describe the procedure for evacuating workers and visitors.			
	8.4 Describe the procedure for reporting and recording accidents and emergencies.			
9. Be able to correctly record information on accidents and emergencies.	9.1 Correctly record information on health and safety issues, for example: accidents, incidents, dangerous occurrences.			
10. Understand the problems that can occur with promoting and maintaining health and safety within the glass or glass related working environment and the potential solutions.	10.1 Give 3 examples of problems that can arise when promoting health and safety, one each of the following: • Problem with communicating information to others • Problem with introducing changes • Problem with monitoring colleagues' compliance with Health and Safety requirements			
	10.2 Give an explanation of how to overcome each of the problems given in 10.1 above.			

Assessor comments/feedback

R/600/8262 FIS2	Improve the work of the Organisation through the use of Resources, Communication and Working Relationships in a Glass or Glass Related Working Environment	Level 3	5 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to contribute to the improvement of the organisation through the use of resources, communications and working relationships within the glass or glass related working environment.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to ensure that the correct quantities of products and materials and human resources are used and how surplus materials might be reused.	1.1 Explain how to ensure that the correct quantities of products and materials and human resources are selected.			
	1.2 Explain how surplus materials might be reused.			
	1.3 Give instructions to colleagues so that they know how to use correct quantities of products and materials and how to reuse surplus products and materials.			
	1.4 Monitor colleagues' use of products and materials.			
2. Know how to minimise wastage of materials.	2.1 List three types of material that can potentially be wasted.			
	2.2 Describe what actions can be taken to minimise wastage of the materials listed.			
3. Know why it is important to contribute to improving the effectiveness of the glass or glass related organisation.	3.1 Explain 3 reasons for contributing to improving the effectiveness of the glass or glass related organisation.			
4. Know the importance of clear, sufficient, accurate and prompt information.	4.1 Explain 3 benefits of sharing information which is clear, sufficient and accurate.			
5. Know why information needs to be shared with colleagues.	5.1 List 3 types of information which needs to be shared with colleagues, related to the glass or glass related activity.			
	5.2 Explain why this information needs to be shared.			

Assessor comments/feedback

R/600/8262 FIS2	Improve the work of the Organisation through the use of Resources, Communication and Working Relationships in a Glass or Glass Related Working Environment (continued)	Level 3	5 Credits

6. Be able to share information with colleagues.	6.1 Share information with colleagues using different methods, for example: • Toolbox talks • Face to face conversations • Written notes • Drawings/sketches • Telephone (voice or text) • Email • Internet			
7. Know how to identify and pass on improvements to work activities.	7.1 Explain 2 ways to identify improvements that can be made in work activities.			
	7.2 Explain how to pass on suggestions for improvements identified.			
	7.3 Explain who to make the suggestions to and why these people need to be made aware.			
8. Be able to identify and pass on improvements to work activities.	8.1 Identify a potential improvement with the glass or glass related activity.			
	8.2 Discuss potential improvements and outcomes.			
	8.3 Pass identified improvements on to colleagues.			
9. Know why good working relationships with colleagues are important.	9.1 State 3 benefits of having good working relationships with colleagues.			
10. Know why it is important to have good relationships with customers.	10.1 Explain 3 benefits of having good relationships with customers.			

Assessor comments/feedback

J/600/7657 AG13	Identify and Rectify Technical Problems in a Glass or Glass Related Working Environment	Level 3	5 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to accurately assess any technical issues that arise in a glass or glass related working environment, to be able to identify potential rectification methods and how to communicate to those involved or affected.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the types of technical problems that can occur in a glass or glass related working environment and how to investigate them.	1.1 Describe 3 technical problems in a glass or glass related working environment, e.g. problems with: • Equipment • Materials • Components • Design • Site/location			
	1.2 Explain how to investigate the causes of the 3 problems highlighted above.			
2. Be able to investigate a technical problem to identify the problem, its location and likely causes.	2.1 Identify the location and likely cause of the problem.			
3. Know when and how to obtain expert assistance to help identify technical problems.	3.1 Explain at what stage to obtain expert assistance and what implications this could have for the organisation and customer.			
	3.2 Explain how and where to obtain expert assistance.			
4. Be able to rectify the technical problem.	4.1 Evaluate potential solutions to an identified technical problem.			
	4.2 Rectify the problem using, as appropriate: • Personnel • Equipment • Materials • Procedures			
5. Know how to ensure that the technical problem has been rectified.	5.1 Explain how to ensure that the rectification meets the specifications and requirements.			
	5.2 Explain how to verify that the technical problem has been rectified.			
	5.3 Explain how to monitor the rectification.			
6. Know how to overcome problems in the identification and rectification of technical problems.	6.1 Describe two factors that can cause difficulties in the identification and rectification of technical problems and explain how these might be overcome.			
7. Know how to record technical problems, their location and rectification and how to inform people who need to know about this.	7.1 Explain how information on technical problems, their location and rectification are communicated.			
	7.2 Explain who needs to know.			

Assessor comments/feedback

F/600/7995	Prepare and Operate Machinery/Tools in Glass Processing	Level 2	6 Credits
GP4			

The aim of this unit is to provide the learner with the knowledge and skills to be able to prepare, operate and monitor the performance of machinery/tools in glass processing.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the types of machinery/ tools used for glass processing and how they are used.	1.1 Give 3 examples of machinery/tools used for processing glass.			
	1.2 Explain when each of the given examples would be used.			
	1.3 Explain how to obtain information on the safe operation of machinery/tools.			
2. Be able to select the correct machinery/tools to do the work.	2.1 Select the correct machinery/tools to do the specified work.			
	2.2 Confirm that the equipment is available and safe for use.			
3. Be able to prepare the machinery/tools correctly.	3.1 Prepare the machinery/tools correctly, for example: • Clean off any glass or other debris • Remove items liable to cause damage • Set up the equipment properly			
4. Be able to start up, operate and shut down the machinery/ tools correctly.	4.1 Start up the machinery/tools correctly to ensure safe and effective operation.			
	4.2 Monitor the operation of the machinery/tools.			
	4.3 Shut down the machinery/tools correctly.			
5. Know what type of problems can occur and how to overcome them.	5.1 Describe three problems that can occur in the preparation and operation of machinery/tools and explain how they might be overcome.			

Assessor comments/feedback

K/600/7652 AG11	Develop New Work Procedures in a Glass or Glass Related Working Environment	Level 3	5 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to accurately assess the requirements of the work to be done in a glass or glass related working environment and be able to specify a procedure for carrying out the work. The learner will also be able to test the procedure to ensure it meets work requirements and to provide sufficient details to enable the procedure to be effective.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to assess the requirements of the work activity.	1.1 Explain how to identify what work needs to be done and its purpose.			
	1.2 Explain how to identify features and characteristics of the work that could affect work procedures.			
	1.3 Explain how to identify any potential problems and possible solutions.			
	1.4 Explain how to obtain information on previous examples of similar work.			
	1.5 Explain how to identify if any special requirements are needed.			
	1.6 Explain why written procedures are important.			
2. Know how to identify potential work procedures, assess their advantages and disadvantages and decide on the most likely procedure.	2.1 Explain how to assess advantages and disadvantages of potential work procedures.			
	2.2 Explain how to identify the most likely procedure.			
3. Be able to specify a work procedure for testing.	3.1 Write a potential work procedure for testing.			
4. Be able to identify the resources and any special requirements needed to implement the specified work procedure.	4.1 Identify the resources including equipment, materials, manpower, skills and time that will be needed to implement the work procedure.			
	4.2 Highlight any special requirements and confirm them with those who need to know.			
5. Know how to inform all those who need to know about the work procedure and provide them with a rationale for the introduction of the procedure.	5.1 Explain who needs to know about the work procedure and the rationale.			
	5.2 Explain how those who need to know will be informed.			
	5.3 Explain how to provide a rationale for the work procedure.			
6. Know how to test the work procedure.	6.1 Explain how to test the potential work procedure and accurately assess if it needs to be modified.			
7. Be able to provide details to others so that the work procedure can be replicated.	7.1 Produce a work procedure that is clear and specific.			
	7.2 Inform others with sufficient details to enable the procedure to be replicated.			

Assessor comments/feedback

M/602/6168 GP10	Set up Equipment for Operations in Glass Processing	Level 3	6 Credits

The aim of this unit is to ensure the learner has the skills and knowledge to set up a range of equipment for use in glass processing, monitor the machinery to ensure effective use, and also be able to resolve problems that may occur.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to prepare for setting up equipment for operations.	1.1 Explain how to obtain and confirm schedules, specifications and manufacturer's instructions for operations.			
2. Be able to prepare for setting up equipment for operations.	2.1 Obtain and confirm schedules and specifications.			
	2.2 Obtain manufacturer's instructions for the equipment to be used.			
3. Be able to select the correct equipment and ensure it is available for use.	3.1 Select the correct equipment to be used in the set up activity.			
	3.2 Ensure that the equipment is available and in good working order.			
4. Be able to determine the correct settings for the equipment and adjust the settings accordingly.	4.1 Determine the correct settings for the equipment.			
	4.2 Adjust the settings to be able to meet specifications.			
5. Be able to ensure that the equipment and monitoring and control systems are operating correctly.	5.1 Check that the equipment and monitoring and control systems are operating correctly.			
6. Be able to monitor equipment to ensure effective operation following set up.	6.1 Monitor the 3 different pieces of equipment to ensure effective operation.			
	6.2 Identify 3 potential areas for adjustment to set up and the reasons why these may be required.			
7. Know the type of problems that can occur in the setting up of equipment and how these can be overcome.	7.1 Describe three problems that can occur in the setting up of equipment and explain how these can be overcome.			
8. Be able to record information on the setting up of equipment.	8.1 Correctly record information on the setting up of equipment in the correct recording system.			
9. Know how to ensure other people who have to operate the machinery are aware of the relevant operating procedures.	9.1 Explain how to ensure other people who have to operate the machinery are aware of the relevant operating procedures.			

Assessor comments/feedback

Y/600/8408 FGSS18	Monitor and Control Operations in a Glass or Glass Related Working Environment	Level 3	5 Credits

The aim of this unit is to ensure the learner has the skills and knowledge to set up a range of equipment for use in glass processing, monitor the machinery to ensure effective use, and also be able to resolve problems that may occur.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to prepare for monitoring of the glass or glass related operations.	1.1 Explain how to obtain the schedules and specifications for the glass or glass related operations.			
	1.2 Explain how to confirm the job specifications.			
	1.3 Explain what to look for when examining materials.			
	1.4 Explain how to check if the operators have the necessary skills/qualification/licences to carry out the work required.			
	1.5 Describe 3 problems that can arise in the preparation for operations and explain how these might be overcome.			
2. Be able to prepare for monitoring glass or glass related operations.	2.1 Obtain and confirm relevant documentation, e.g.: • Specifications • Schedules			
	2.2 Check that operators have the necessary skills/ qualifications/licences.			
3. Know how to monitor glass or glass related operations and identify and correct incorrect working practices.	3.1 Explain how to monitor operations.			
	3.2 Explain how to identify problems with equipment or materials and provide solutions. Give 3 examples.			
	3.3 Explain how to inform operators of the safe use of equipment. Give 2 examples.			
	3.4 Explain how to identify any incorrect working practices and provide clear, correct advice or guidance, e.g. guidance on: • Use of equipment • Use of materials • Safe working practices			
4. Be able to monitor glass or glass related operations.	4.1 Monitor operations.			
5. Know how to identify good practice or potential improvements and make recommendations.	5.1 Explain how to identify good practice.			
	5.2 Explain how to identify potential improvements.			
	5.3 Explain how to make recommendations to adopt good working practice or improve working practice.			

Assessor comments/feedback

Y/600/8408 FGSS18	Monitor and Control Operations in a Glass or Glass Related Working Environment (continued)	Level 3	5 Credits

6. Know how to identify and overcome problems in glass or glass related operations.	6.1 Describe 3 problems in operations and explain how these might be overcome.			
7. Know why it is important to record problems, solutions, good working practice and recommendations for improvements.	7.1 Explain why it is important to record problems, solutions, good working practice and recommendations for improvements.			
	7.2 Explain how to record problems, solutions, good working practice and recommendations for improvements.			

Assessor comments/feedback

A/600/7655	Assess the Quality of Materials and Components in a Glass or Glass Related Working Environment	Level 3	4 Credits
AG12			

The aim of this unit is to provide the learner with the knowledge and skills to be able to assess the quality of glass and related products, identify the areas to be assessed and communicate effectively with others involved in or affected by the information obtained.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to identify the quantity, quality and type of glass and glass related materials/ components needed.	1.1 Explain how to identify the quantity, quality and type of glass and glass related materials/components needed.			
2. Be able to check that the quantity, quality and type of glass and glass related materials match the specifications.	2.1 Ensure that any equipment used to assess quality is functioning correctly.			
	2.2 Select the correct method and equipment to assess glass and glass related materials/components.			
	2.3 Identify the main characteristics and features of the glass and glass related materials/components.			
	2.4 Check that the glass and glass related materials/ components accord with the information on them.			
	2.5 Confirm accordance with specifications, or report discrepancies clearly and accurately, to the correct people.			
	2.6 Record findings clearly and accurately.			
3. Know the types of variations in quality that can occur and how to recognise these variations.	3.1 Describe three types of variations in quality that can occur in: • Glass • Glass related materials/components			
	3.2 Explain how to recognise the examples given			
4. Know how to identify the causes of variation in quality.	4.1 Describe how to identify the most likely causes of variation in quality in: • Glass • Glass related materials/components			
5. Know the corrective actions to be carried out when a variation in quality is identified.	5.1 Explain 3 types of corrective action that can be carried out and what variation in quality each action will correct.			
6. Know when and where to obtain expert assistance to help identify causes of variation in quality.	6.1 Explain at what stage to obtain expert assistance to help identify causes of variation in quality.			
	6.2 Explain how and where to obtain expert assistance.			

Assessor comments/feedback

A/600/7655 AG12	Assess the Quality of Materials and Components in a Glass or Glass Related Working Environment (continued)	Level 3	4 Credits

7. Know how to make recommendations to correct variations in quality.	7.1 Explain how and who to make recommendations to, for correcting variations in quality.			
	7.2 Explain the importance of quality checks and the possible implications if they are not done.			

Assessor comments/feedback

Y/600/8389	Shape Products and Materials in Glass Processing	Level 2	2 Credits
GP8			

The aim of this unit is to provide the learner with the knowledge of how to obtain and confirm specifications for the materials to be shaped, to know the correct equipment for measuring and shaping the materials, and how to shape in readiness for use in glass processing.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Be able to obtain and confirm the correct specification for the products and materials to be shaped.	1.1 Obtain the correct specification for the products and materials to be shaped.			
	1.2 Confirm the correct specification for the products and materials.			
2. Be able to obtain the correct type, quantity and quality of products and materials.	2.1 Ensure the products and materials are available.			
	2.2 Select the correct type, quantity and quality of products and materials, e.g.: • Glass • uPVC • Seals • Spacers			
3. Be able to correctly store products and materials in readiness for shaping.	3.1 Correctly store the products and materials in readiness for shaping.			
4. Be able to select the correct method and equipment for shaping products and materials.	4.1 Select the correct method for shaping products and materials.			
	4.2 Select the correct equipment for shaping the products and materials, e.g: • Machine saws • Hand saws • Grinders • Jigs			
5. Be able to position the products and materials correctly in readiness for shaping.	5.1 Correctly position the products and materials in readiness for shaping.			

Assessor comments/feedback

Y/600/8389 GP8	Shape Products and Materials in Glass Processing (continued)	Level 2	2 Credits

6. Be able to shape the products and materials correctly to specification and minimising waste.	6.1 Shape the products and materials correctly to specification.			
	6.2 Monitor the shaping process to ensure it continues to shape products and materials to specification.			
	6.3 Minimise waste by salvaging reusable products and materials.			
	6.4 Dispose of unwanted products and materials correctly.			
7. Know the type of problems that can occur in the shaping of products and materials and how these problems might be overcome.	7.1 Describe four problems that can occur in the shaping of products and materials and explain how these might be overcome.			
8. Be able to correctly record information on the shaping of products and materials.	8.1 Correctly record information on the shaping of products and materials.			

Assessor comments/feedback

D/600/8393	Prepare and Assemble Products and Materials in Glass Processing	Level 2	5 Credits
GP9			

The aim of this unit is to provide the learner with the knowledge of how to obtain and confirm specifications for the materials to be shaped, to know the correct equipment for measuring and shaping the materials, and how to shape in readiness for use in glass processing.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Be able to identify and confirm the specification for the preparation of products and materials for assembly.	1.1 Identify the correct specifications or the products and materials to be assembled.			
	1.2 Confirm the specifications.			
2. Be able to correctly prepare products and materials for assembly.	2.1 Select the correct type, quantity and quality of products and materials, e.g.: • Glass • Spacers • Seals • Brackets • Fasteners			
	2.2 Correctly prepare products and materials for assembly.			
3. Know the methods and equipment used in assembling glass products.	3.1 Describe a method of unit assembly to specification, to include: • Materials • Handling • Equipment			
4. Be able to select the correct method and equipment for assembling the products and materials.	4.1 Select the correct methods for assembling the products and materials.			
	4.2 Select the correct equipment for assembling the products and materials, e.g: • Jigs • Hand tools • Heating appliances			
5. Be able to correctly assemble products and materials.	5.1 Correctly assemble the products and materials to specification.			
6. Know the type of problems that can occur in the assembly of products and materials and how these might be overcome.	6.1 Describe three problems that can occur in the assembly of products and materials and explain how these might be overcome.			
7. Be able to correctly record information on the assembly of products and materials.	7.1 Correctly record information on the assembly of products and materials.			

Assessor comments/feedback

T/600/8397	Process Glass Products by Removing Materials	Level 2	5 Credits
GP11			

The aim of this unit is to provide the learner with the knowledge and skills to be able to process glass products by removing material.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to identify and confirm the specification for the processing of glass products.	1.1 Explain how to confirm the specification for the processing of glass products.			
2. Know the correct method for processing the glass products by removing materials.	2.1 Identify three methods for processing glass products by removing materials.			
	2.2 Describe the equipment used in the methods identified.			
3. Be able to position the glass products correctly for decoration.	3.1 Position the glass products correctly for decorating.			
4. Be able to decorate the glass products by correctly removing materials.	4.1 Decorate the glass products by correctly removing materials.			
5. Know the types of problems that can occur in the decorating and finishing of glass products and how these might be overcome.	5.1 Describe three problems that can occur in the decoration and finishing of glass products and explain how these might be overcome.			
6. Be able to correctly record information on the decorating and finishing of glass products.	6.1 Correctly record information on the decorating and finishing of glass products			

Assessor comments/feedback

A/600/8031	Decorate Glass Products by Applying Additional Materials	Level 2	5 Credits
GP12			

The aim of this unit is to provide the learner with the knowledge and skills to be able to decorate glass products by applying additional materials and to identify any problems in the process.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Be able to identify and confirm the specification for the decoration of glass products.	1.1 Identify and confirm the specification for the decoration of glass products.			
2. Be able to select the correct type, quantity and quality of additional materials.	2.1 Ensure the required materials are available.			
	2.2 Identify the correct type, quantity and quality of materials to be used.			
	2.3 Select the correct type, quantity and quality of materials.			
3. Know the correct method for the application of additional materials to glass.	3.1 Describe three methods of applying additional decorative materials to glass.			
4. Be able to position the glass products correctly for decorating.	4.1 Position the glass products correctly for decorating.			
5. Be able to decorate the glass products by correctly applying additional materials.	5.1 Decorate the glass products by correctly applying additional materials to specification.			
6. Know the correct method for finishing the decoration of the glass products.	6.1 Describe the correct method for finishing the decoration of the glass products.			
7. Be able to finish the decorated glass products correctly.	7.1 Finish the decorated glass products correctly.			
8. Know the type of problems that can occur in the decoration and finishing of glass products and how these might be overcome.	8.1 Describe three problems that can occur in the decoration and finishing of glass products and explain how these might be overcome.			
9. Be able to correctly record information on the decoration and finishing of glass products.	9.1 Correctly record information on the decoration and finishing of glass products.			

Assessor comments/feedback

K/503/6705	Toughened Glass Production	Level 3	7 Credits
GP14			

The aim of this unit is to ensure the candidate has a full understanding of toughened glass and the processes involved in toughening. This includes processes, materials, equipment for a range of products and glass types. Knowledge of monitoring processes, glass markings, problems that can occur and potential solutions are also include in the unit criteria. As this is a Level 3 unit candidates will also need to understand amendments that may be required, e.g. variation in flow rates and recipes. Additionally candidates will need to demonstrate quality checks against specifications and also knowledge of equipment maintenance schedules.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Understand how toughened glass is made.	1.1 Explain the toughening process to include: • Temperatures • Annealing process • Equipment			
	1.2 Name and describe 3 different types of edgework.			
	1.3 Explain the difference between toughened and heat strengthened glass.			
	1.4 Name the British Standard toughened glass must meet.			
2. Know how toughened glass must be identified.	2.1 List 3 pieces of information that must be indelibly marked on toughened glass.			
3. Be able to obtain and confirm the correct specification of the product.	3.1 Obtain the correct specification for the product.			
	3.2 Confirm the correct specification of the product.			
4. Be able to ensure that glass is suitable and prepared for toughening.	4.1 Check and confirm the glass is prepared and suitable to meet the required specifications.			
5. Understand how to deal with different types of glass.	5.1 Explain how processes may differ when producing: • Glass over 10mm thick • Soft coat glass • Curved glass			
6. Be able to select the correct method and equipment for toughening.	6.1 Select and use the appropriate method and equipment for the toughening process in accordance with safe working practice.			
7. Be able to monitor the toughening process.	7.1 Carry out quality checks on toughening process in line with Company procedures.			

Assessor comments/feedback

8. Know how to monitor and control the flow of materials, identify variations and adjust the flow rate to correct the variations.	8.1 Explain how to monitor the flow of materials.			
	8.2 Explain how to identify variations from the required flow rate.			
	8.3 Explain how to adjust the flow rate.			
	8.4 Explain how and why others may need to be made aware of any adjustments.			
9. Understand the types of problems that can occur during the toughening process.	9.1 Explain the following: • Overall bow • Roller wave			
10. Understand when and how to vary recipes.	10.1 Explain how a need for variation in recipe may be identified.			
	10.2 Explain why and how a variation in recipes can be made.			
	10.3 Explain how and why changes in recipes should be communicated to others.			
11. Know how to ensure glass products meet specification following toughening.	11.1 Explain how to check toughened glass meets job specification and legal requirements.			
	11.2 Explain what to do if the finished product does not meet the required standard.			
12. Be able to check the finished product meets the specifications.	12.1 Carry out quality checks of finished product.			
13. Understand the Company procedure and schedule for maintenance checks on equipment.	13.1 Explain the Company maintenance procedures.			

Assessor comments/feedback

K/600/8381	Glass Edge Sealing	Level 2	2 Credits
GP30			

The aim of this unit is to provide the learner with the knowledge and skills to be able to edge seal sealed units to specification.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the requirements of edge sealing sealed units.	1.1 Describe the method for edge sealing double or triple glazed units.			
	1.2 Describe the equipment used in edge sealing.			
	1.3 State the industry requirements linked to edge sealing sealed units.			
2. Be able to edge seal sealed units.	2.1 Edge seal sealed units to specification. To include adjusting for spacer bar sizes.			
3. Know the types of problems that can occur during edge sealing.	3.1 Describe three problems that can occur during the edge sealing process, for example: • Decorative work • Quality • Materials • Application			
	3.2 Explain solutions to each of the given problems.			
4. Be able to record information on edge sealing to specification.	4.1 Correctly record information on edge sealing in line with industry requirements.			

Assessor comments/feedback

D/601/5327	Glass Cutting in a Range of Glass Types	Level 3	8 Credits
GP2			

The aim of this unit is to provide the learner with the skills and knowledge to cut a range of glass types, understand templates and be able to deal with the problems that can arise. Cutting of holes and internal and external radii are also required to complete this unit.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how different types of glass have to be cut and the equipment required.	1.1 Describe the makeup of the following types of glass: • Laminated • Georgian wired • Float glass • Mirrors			
	1.2 Explain the process for cutting each of the types of glass to include: • Cutting machinery • Manual cutting equipment/hand tools • Measuring equipment • Location			
2. Know how to use a template.	2.1 Explain why a template may be required.			
	2.2 Explain what information is required on a template.			
	2.3 Explain how to cut glass to shape and size when the information is on a template.			
3. Be able to select the correct method, equipment and location for cutting the glass.	3.1 Select the correct method and location for cutting the glass.			
	3.2 Select the correct equipment for cutting the glass, e.g.: • Cutting machinery • Manual cutting equipment/hand tools • Measuring equipment • PPE			
4. Know the types of problems that can occur in the cutting of different types of glass and how these problems might be overcome.	4.1 Describe one problem that can occur in cutting for 3 different types of glass.			
	4.2 Explain how each problem identified could be overcome.			

Assessor comments/feedback

D/601/5327	Glass Cutting in a Range of Glass Types (continuied)	Level 3	8 Credits
GP2			

5. Be able to cut the glass to specification, minimising waste, and check the glass after cutting to ensure it meets the specifications.	5.1 Cut different types of glass to specification, minimising waste, e.g.: • Laminated • Georgian wired • Float glass (clear and obscure) • Mirrors			
	5.2 Cut glass to shape and size when the information is on a template.			
	5.3 Check the glass after cutting to ensure it meets the specifications.			
6. Be able to cut radii into the different types of glass.	6.1 Cut external radii to different glass types, e.g.: • Laminated • Georgian wired • Float glass • Mirrors			
	6.2 Cut internal radii to different glass types, e.g.: • Laminated • Georgian wired • Float glass • Mirrors			
7. Know how to cut holes in different types of glass, the types of problems that can occur and how they might be overcome.	7.1 Explain how to cut holes in the following types of glass: • Laminated • Georgian wired • Float glass			
	7.2 Describe a problem that can occur when cutting holes in each type of glass and how the problems might be overcome.			
8. Be able to cut holes in different types of glass.	8.1 Cut a hole in clear float glass and one other type of glass.			
9. Be able to record information on the cutting of glass.	9.1 Record accurate information of the glass cut in accordance with Company procedures.			

Assessor comments/feedback

R/615/2913	UV Glass Bonding	Level 2	5 Credits
GP27			

The aim of this unit is to provide the learners with the knowledge and skills to be able to prepare surfaces to be bonded, select the correct tools and equipment to use, select the correct bonding material and correctly bond two surfaces together using a UV bonding process.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to identify and confirm the specification for UV bonding process.	1.1 Explain how to confirm the specification for the UV bonding together of two surfaces			
	1.2 Describe how to select the appropriate UV bonding adhesive to use			
	1.3 Explain how to identify the material to be UV bonded as outlined in the specification.			
2. Be able select the materials and bonding agent to use	2.1 Select the material to be UV bonded together to meet the job specification			
	2.2 Select the UV adhesive to use according to the specification			
3. Know how to prepare the work area prior to starting the UV bonding process	3.1 Explain how to prepare the working area ready to start the bonding process			
	3.2 Describe the ideal work area set up needed to carry out a UV bonding process			
	3.3 Describe the environmental conditions to be achieved prior to starting the bonding process			
	3.4 Explain what might happen to the UV bonded material if suitable environmental procedures are not met			
	3.5 State the action to take if the work area is not in a suitable condition to carry out the UV bonding process			
4. Be able to prepare the work area ready to start the UV bonding process	4.1 Prepare the working area in accordance with company procedure			
	4.2 Check the environmental conditions are suitable for the UV bonding process to take place			
	4.3 Ensure all environmental conditions are met before starting the UV bonding process			
5. Know the tools and equipment used in the UV bonding process	5.1 State the tools and equipment used in the glass bonding process and explain how they are used			
	5.2 Explain the company procedures and manufacturers' guidelines to set up any tools and equipment used in the UV bonding process			
	5.3 Explain how to deal with defective tools and equipment according to company procedures			

Assessor comments/feedback

6. Be able to select and set up the tools and equipment needed to carry out the UV bonding process	6.1 Select the relevant tools and equipment to carry out the UV glass bonding process			
	6.2 Set up the tools and materials according to the operating instructions and manufacturer guidance			
7. Know how to prepare the surfaces to be bonded prior to starting the UV bonding process	7.1 Explain how to prepare different types of surfaces prior to starting the UV bonding process			
	7.2 State three different products used to prepare the surfaces and explain what they are used for			
	7.3 Explain how to deal with surface imperfections according to company procedures and manufacturers' instructions			
	7.4 Describe the safety precautions to be taken when using these products			
8. Be able to prepare the surfaces to be bonded	8.1 Prepare the surfaces to be bonded following company procedures and manufacturers' instructions			
9. Know how to carry out the UV glass bonding process	9.1 Explain the process to follow when UV bonding two surfaces together			
	9.2 Explain the jigs, clamps and other equipment used in the UV bonding process and outline their function			
	9.3 Describe how the bonding process joins the surfaces together			
	9.4 State the manufacturers 'curing times for the most common adhesives used in the company			
	9.5 Explain the problems that may arise when carrying out the bonding process and how they are rectified			
	9.6 State the actions to take once the UV bonding process has been carried out.			

Assessor comments/feedback

R/615/2913	UV Glass Bonding (continued)	Level 2	5 Credits
GP27			

10. Be able to carry out the UV bonding process	10.1 Ensure any required surface pre-treatments are completed prior to applying the adhesive			
	10.2 Apply jigs, clamps and other equipment to material as required for the bonding process being carried out, following manufacturers' instructions			
	10.3 Check material is positioned according to the specification			
	10.4 Apply the UV bonding adhesive to surfaces in accordance with company procedures and manufacturers' guidelines			
	10.5 Use UV light to carry out the UV bonding process			
	10.6 Complete pre-cure, cleaning of excess adhesive and full light cure according to company procedures and adhesive manufacturer's instructions			
11. Be able to record information on the UV bonding process	11.1 Record information on the process in accordance with Company guidelines and requirements.			

Assessor comments/feedback

L/615/2912	In Situ Glass Surface Restoration	Level 3	7 Credits
GP28			

The aim of this unit is to provide the learners with the knowledge and skills to be able to assess the damage on the glass surface, such as scratches and graffiti. Prepare and set up the fining and polishing equipment correctly, restore the damaged part of the surface and polish to required standard.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to identify and confirm the specification for the restoration of the damaged glass.	1.1 Describe 6 different types of glass, their properties, uses and issues that could arise			
	1.2 Explain how to confirm the specification for the restoration of the damaged glass			
	1.3 Describe how to assess the damage to the glass and the correct process to use to restore it to visibility standard required			
	1.4 Explain action to take if damage to glass is not as stated on the specification.			
2. Be able to identify the damage on the glass surface and the correct process to use to restore it	2.1 Assess damage to glass and confirm it is the same as stated on the specification			
	2.2 Select the correct action to take following inspection of the glass and how it is damaged			
3. Be able to prepare and isolate the work area correctly according to set procedures	3.1 Mark out and isolate work area according to location and procedures			
	3.2 Protect area adjacent to the building work as necessary for the location			
	3.3 Ensure relevant people are notified			
4. Know the methods and equipment used in glass surface restoration	4.1 Describe the different methods used to carry out glass surface restoration			
	4.2 State equipment used to carry out glass surface restoration and how each is used			
	4.3 Explain how to prepare the glass surface prior to starting restoration			
	4.4 Describe the checks made to the glass surface before starting the restoration			
5. Be able to prepare the glass surface prior to starting restoration process	5.1 Carry out surface checks prior to starting Restoration			
	5.2 Identify any issues with the glass surface and report them according to procedure			
	5.3 Prepare surface area according to specification and procedures			
6. Know how to carry out the glass restoration process	6.1 Explain the full process identified for removing the surface damage and polishing the glass surface and why this method is appropriate			

7. Be able to carry out glass surface restoration process	7.1 Select the correct process to use for the glass surface restoration being carried out			
	7.2 Carry out surface restoration process according to specification and procedures			
8. Know the types of problems that can occur in the glass surface restoration process	8.1 Explain the problems that can occur when carrying out restoration process and what causes them			
	8.2 Describe how problems can be rectified or reported as necessary			
9. Know how to clear up work area on completion of work	9.1 Describe how to clear up work area on completion of glass restoration process			
	9.2 List the checks made on area after clearing up has been completed.			
10. Be able to clear up work area on completion of process	10.1 Clear work area on completion of work			
	10.2 Carry out final checks after clear up is completed			
11. Be able to record information on the completed glass surface restoration process	11.1 Record information on the completed glass restoration process in accordance with Organisational guidelines and requirements.			

Assessor comments/feedback

D/502/9721	Use Access equipment to work at heights	Level 2	4 Credits
PV3			

The aim of this unit is to provide the learner with the knowledge and skills required to work safely at height. The learner will be required to show knowledge of the inspections that need to be carried out, and the problems that can occur with these types of equipment and offer solutions, also the equipment must be used safely and in accordance with manufacturer's and Company guidelines.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know what is meant by "working at heights".	1.1 Define "working at heights".			
	1.2 Explain how the working at heights act affects the work to be carried out.			
2. Know how to find guidance on the legislation that applies to the use of access equipment and working at heights.	2.1 Explain where to find information on the legislation that applies to the use of access equipment for working at heights.			
3. Know how to assess the risks of working at heights and why this is important.	3.1 Explain how to accurately assess the risks of working at heights. State 3 things to consider.			
	3.2 Explain why it is important to carry out a specific risk assessment on working at heights.			
4. Be able to assess the risks of working at heights.	4.1 Carry out an effective risk assessment for working at heights.			
5. Know the different types of access equipment and working platforms for working at heights.	5.1 List three different types of access equipment or working platforms that may be used to work at heights.			
	5.2 Explain the limitations on the use of the equipment listed in 5.1.			
	5.3 Explain what to do when the supplied access equipment is not suitable for the work required.			
6. Know how to inspect the prepared access equipment or working platforms before use and how to deal with any problems identified.	6.1 Explain 3 checks to make on access equipment or working platforms before use.			
	6.2 Explain who can carry out the checks and when they should be made.			
	6.3 State 3 problems that can arise when checking the access equipment or working platforms.			
	6.4 Explain how to deal with each of the 3 problems identified.			
7. Know why it is important to regularly inspect access equipment and working platforms.	7.1 Explain why it is important to regularly check access equipment and working platforms.			
8. Be able to inspect the access equipment before use.	8.1 Carry out all necessary checks before using the access equipment.			

Assessor comments/feedback

D/502/9721	Use Access equipment to work at heights (continued)	Level 2	4 Credits
PV3			

9. Use the equipment in accordance with manufacturer's guidelines, Company procedures and relevant health and safety legislation.	9.1 Gain access to and from the working height in accordance with manufacturer and Company guidelines.			
	9.2 Ensure any materials and components are lifted and placed in, on or around the access equipment in a safe, effective manner.			
	9.3 Ensure any materials and components are removed from the access equipment in a safe effective manner.			
	9.4 Follow the Company and manufacturer's guidelines and relevant legislation on health and safety throughout the use of the equipment.			

Assessor comments/feedback

Notes

GQA Qualifications, Unit 1, 12 O'Clock Court, Attercliffe Road, Sheffield, S4 7WW
Tel: 0114 272 0033/272 0080
Email: info@gqaqualifications.com Website: www.gqaqualifications.com