GQA LEVEL 2 CERTIFICATE IN GLASS RELATED OPERATIONS

Qualification Number

500/7768/5

Welsh Qualification Number

C00/0196/2

Issue 5: December 2018

GQA, Unit 1, 12 O' Clock Court, Attercliffe Road, Sheffield, S4 7WW
Tel: 01142 720033, 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	**Mandatory Units**	**Level**	**Credit**		
F/600/8368 GRO12	Understanding Health and Safety in the Glass and Glass Related Industry	2	3		
L/600/8373 GRO13	Know how to Contribute to the Effectiveness of the Glass and Related Organisation	2	4		
D/600/8376 GRO14	Know how to Accept Delivery of, Handle, Position and Store Glass and Glass Related Products and Materials	2	1		
K/600/8378 GRO15	Know how to Carry Out Quality Checks of Glass Related Products and Materials	2	2		
Optional Units of Credit – Minimum of 3 credits to be achieved – see qualification introduction page for details					
Apprenticeship Pathway (3 credits to be achieved for those undertaking this qualification as part of a Proskills Apprenticeship)					

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

Observation in the workplace ☐
Records of prior experience ☐
Testimonial(s) ☐
Work records ☐
Assessment of knowledge ☐
Witness statement(s) ☐
Photographic evidence ☐
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 individuals wishing to gain knowledge of the basic requirements of working safely and effectively in a glass related working environment.

Establishing underpinning knowledge and understanding relevant to the Glass Industry, this qualification is intended to be capable of delivery through both a taught programme of off-the-job learning or through workplace assessment (for those with access to the real workplace).

Along with a number of generic glass industry units the group of optional units ensures there is a specific unit to cover the individual occupational roles in the glass industry.

A further qualification in Glass Related Operations at Level 3 is also available.

What is required from candidates?

Qualifications are made up of a number of units that have a credit value or credits. These credits must be achieved in the correct combination from mandatory and optional units: this qualification has 4 mandatory units, which have a value of 10 credits and a group of optional units. Candidates should achieve all 4 mandatory units, plus a minimum of 3 credits from the group of optional units. This makes the minimum credit value of the qualification 13 credits. Apprentices must also achieve the 3 credits from the Apprenticeship Pathway to enable full achievement of the Proskills Apprenticeship Framework.

The units are made up of the things you need to know and the things you need to be able to do to carry out your job safely and correctly. These are called Learning Outcomes, and all must be met to achieve the unit. Qualifications are now required to indicate the total qualification time (TQT), this is to show the typical time it will take someone to attain the required skills and knowledge to meet the qualification criteria, this qualification has a TQT of 130 hours.
Qualifications are also required to indicate the number of hours of teaching someone would normally need to receive in order to pass the qualification. These are referred to as Guided Learning Hours (GLH). The GLH for this qualification is 93.

Unit Ref	Title	Level	Credit
Mandatory Units			
F/600/8368 GRO12	Understanding Health and Safety in the Glass and Glass Related Industry	2	3
L/600/8373 GRO13	Know how to Contribute to the Effectiveness of the Glass and Related Organisation	2	4
D/600/8376 GRO14	Know how to Accept Delivery of, Handle, Position and Store Glass and Glass Related Products and Materials	2	1
K/600/8378 GRO15	Know how to Carry Out Quality Checks of Glass Related Products and Materials	2	2
Optional Units of Credit – Minimum of 3 credits to be achieved – see qualification introduction page for details			
H/600/8329 GR05	Know how to Operate Glass Manufacturing Equipment	2	6
H/600/8332 GR06	Know how to Operate Glass Processing Equipment	2	5
D/600/8345 GR07	Know how to Operate Equipment for Fabricating Glass Supporting Systems	2	5
A/600/8353 GR08	Know how to Replace and Repair Fixed Glass Components in Vehicles	2	4
Y/600/8358 GR09	Know how to Install Glass into Glazing Installations	2	5
R/600/8360 GRO10	Know how to Shape Glass for Glazing Installations	2	4

T/600/8366 GRO11	Know how to Install Glass Supporting Frames/Systems	2	5
T/600/8495 GRO19	Knowledge of the Fascia, Soffit and Bargeboard Removal and Installation Process	2	4
Y/600/6660 CW5	Knowledge of Curtain Walling Systems	2	3
L/502/9715 PV2	Knowledge of Photovoltaic Systems	3	6
Apprenticeship Pathway (3 credits to be achieved for those undertaking this qualification as part of a Proskills Apprenticeship)			
F/602/3940 ERR1	Employment rights and responsibilities in the processing and manufacturing industries	2	3

Achieving the combination of Mandatory units and the correct choice of Optional credits will mean the qualification has been completed and GQA will provide the Diploma with the qualification title. Where a candidate has completed additional credits the Diploma will list these as "additional credits", in cases where the candidate has not completed the full qualification and will not go on to do so, a Certificate of credit can be issued for the credits achieved.

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 quality assurance and hold the relevant national external quality assurance 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 EQA'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 quality assurance 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

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 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.....

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

F/600/8368	Understanding Health and Safety in the Glass and Glass Related Industry	Level 2	3 Credits
GRO12			

The aim of this unit is to provide the learner with the knowledge of which acts, regulations and guidance are relevant to the glass related working environment and how these apply in practice. The learner will know how to identify hazards and how to adopt and adhere to safe working practices. The learner will also know how to ensure there is no unauthorised or unsafe access to the working areas and what action to take in the event of an accident or emergency.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the, acts, regulations and guidelines that apply to the glass related working environment.	1.1 State which acts, regulations and guidelines apply to the candidate's glass related working environment. Give 2 examples of each of the following that are applicable to the glass and related working environment: • Government Acts • Manufacturers / Employer Instructions • Industry Codes of Practice			
	1.2 Give an overview of each stated act, regulation and guideline and they apply to the candidate's glass related working environment.			
2. Know the type of hazards that can be found in the glass related working environment, what harm they have the potential to cause and what actions to take	2.1 Give 6 examples of hazards that can be found in the candidate's glass related working environment.			
	2.2 Describe the harm the 6 stated hazards have the potential to cause, for example, to people, to equipment, to products, to the environment.			
	2.3 Describe actions to be taken, including reporting procedures and temporary safe measures, that could be implemented in respect of the above 6 stated hazards.			
3. Know how to adopt and adhere to safe working practices.	3.1 State how to access manufacturer's instructions on the safe use of equipment and materials.			
	3.2 Give 6 examples of when to use personal protective equipment and materials to safely carry out the different aspects of working with glass and glass related materials.			
	3.3 State how to correctly select and safely use equipment required to carry out the glass related work. Give 3 examples from the list below: • Cutting equipment • Grinding equipment • Melting equipment • Toughening equipment • Power tools • Hand tools • Handling equipment • Access equipment • Storage equipment • Inspection Equipment • Processing Equipment			
	3.4 Explain how to correctly select, handle and safely use materials required to carry out the glass related work, for example: • Consumables • Glass • Seals • Spacers • Frames • Panels • Hardware • Adhesives			

F/600/8368 GRO12	Understanding Health and Safety in the Glass and Glass Related Industry (continued)	Level 2	3 Credits

4. Know how to ensure there is no unauthorised or unsafe access to the working areas.	4.1 Explain how to establish if a person is authorised to enter the work area.			
	4.2 Explain how to ensure that authorised people entering the work area are kept safe.			
5. Know what to do in the event of accidents or emergencies.	5.1 Describe the correct procedure to follow in the case of an accident.			
	5.2 Describe a possible emergency and the correct procedure to follow.			
	5.3 Describe the procedure for evacuating workers and visitors.			
	5.4 Describe the procedure for reporting and recording incidents and why it is important to do so.			

Assessor comments/feedback

L/600/8373	Know how to Contribute to the Effectiveness of the Glass and Related Organisation	Level 2	4 Credits
GRO13			

The aim of this unit is to provide the learner with the knowledge of how to contribute to the effectiveness of the glass related organisation by dealing with specifications, equipment, materials, and communication.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to identify and confirm the specifications for the work to be done	1.1 Explain how to identify and confirm the specifications for the work to be done.			
2. Know how to identify and confirm the type, quantity and quality of the products and materials required for the work to be done	2.1 Explain how to identify the correct type, quantity and quality of materials required for the work to be done.			
3. Know how to identify and confirm the availability of the correct equipment for the work to be done	3.1 Explain how to identify and confirm the availability of the correct equipment for the work to be done.			
	3.2 Discuss a potential issue with the availability of equipment and any follow up action to be taken..			
4. Know why it is important to confirm that products, materials and equipment are available	4.1 Explain why it is important, in regard to effective work practice, to confirm that products, materials, manpower and equipment are available before work commences.			
5. Know how to minimise wastage of materials	5.1 List three types of glass/glass related material that can potentially be wasted.			
	5.2 Describe what actions can be taken to minimise wastage of the materials listed.			
6. Know how to obtain information and guidance on glass related operations	6. 1 List three sources of information/guidance on carrying out glass related operations.			
	6.2 Explain how to obtain information and guidance on carrying out glass related operations			
7. Know the purpose of having records and procedures.	7.1 List three types of work records and give reasons for why each contributes to effective working.			
8. Know the importance of clarity and accuracy of records and procedures.	8.1 Explain the importance of clarity and accuracy of records.			
	8.2 Explain the importance of clarity and accuracy of procedures.			`
9. Know what information to share with colleagues and why this is important.	9.1 List three types of information relative to glass related operations that need to be shared with colleagues.			
	9.2 Explain why sharing information with colleagues is important.			
10. Know how to share information with colleagues and how to overcome problems in communications	10.1 List three methods of sharing work related information with colleagues.			
	10.2 Give 1 example of how to overcome problems in sharing information with colleagues.			
11. Know why good working relationships with colleagues are important.	11.1 Explain why good working relationships with colleagues are important.			
12. Know the different types of customers that are involved with the glass or glass related organisation	12.1 Explain the difference between internal and external customers			

D/600/8376	Know how to Accept Delivery of, Handle, Position and Store Glass and Glass Related Products and Materials	Level 2	1 Credits
GRO14			

The aim of this unit is to provide the learner with the knowledge of how to accept delivery of products and materials used in glass related operations, how to handle and position them and how to store them correctly.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to accept delivery of glass related products and materials and confirm that they meet delivery specifications.	1.1 Explain how to identify and confirm that products and materials delivered meet specification on type and quantity			
	1.2 Identify markings of materials and components.			
2. Know how to handle and position glass and related products and materials correctly.	2.1 Explain what authority or licences are necessary to use handling equipment in your role			
	2.2 Explain how to handle the glass and related products and materials safely taking into account: • equipment • manual handling techniques • Personal protective equipment • Sizes • Shapes • Weights • Surrounding objects and environment			
	2.3 Describe three possible instances where difficulties/ hazards could arise in the positioning of materials and components.			
	2.4 Describe methods of overcoming the three possible instances described.			
	2.5 Describe the type of damage that could occur during the handling of glass and related products and materials and explain how to avoid this.			
3. Know how to store different types of products and materials	3.1 Describe how to store different glass related products and materials. Giving three examples			
	3.2 Describe three types of problem in storing products and materials and explain how these might be overcome.			

Assessor comments/feedback

K/600/8378	Know how to carry out Quality Checks of Glass Related Products and Materials	Level 2	2 Credits
GRO15			

The aim of this unit is to provide the learner with the knowledge of how to check the quality of glass related products and materials, against specifications and what action to take if the specified quality is not met.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to interpret quality specifications.	1.1 Interpret quality specifications relative to the glass related activity			
2. Know how to conduct a quality check.	2.1 Explain how to carry out a quality check on glass and/ or related materials.			
3. Know the importance of accuracy when conducting a quality check.	3.1 Explain the importance of accuracy when conducting a quality check and the implications if accuracy is not achieved and maintained.			
4. Know what action to take if specified quality is not met.	4.1 Explain what action to take if specified quality is not met. Give 3 examples			

Assessor comments/feedback

H/600/8329	Know how to Operate Glass Manufacturing Equipment	Level 2	6 Credits
GRO5			

This unit is focussed on the knowledge required to be able to start up, operate and shut down a range of equipment used in the glass manufacturing working environment. There is also the requirement for knowledge of associated problems and solutions.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know what the products manufactured by the organisation are.	1.1 List 4 different glass products manufactured by the organisation.			
2. Know the equipment the organisation uses to manufacture the products named in 1.1.	2.1 List the equipment the organisation uses to manufacture the products named in 1.1.			
3. Know what information is required to operate equipment correctly and where this information can be found.	3.1 Explain what information is required to operate equipment correctly			
	3.2 Explain how to find the required information.			
4. Know how to start up the equipment in accordance with manufactures and organisational guidelines	4.1 Explain how to start up and shut down 3 pieces of equipment correctly			
5. Know how to shut down the equipment in accordance with manufactures and organisational guidelines	5.1 Explain the shut down procedure for 3 different pieces of equipment when: • Normal shut down is required • Emergency shut down is required			
6. Know why it is important to monitor the performance of equipment and how to do this.	6.1 Explain why it is important to monitor the performance of equipment and explain how to do this correctly.			
7. Know how to identify and carry out basic maintenance.	7.1 Explain how to identify basic maintenance requirements of the equipment and how to meet these requirements.			
	7.2 Explain why it is important to carry out basic maintenance			
8. Know how to summon assistance or seek advice on the operation of equipment	8.1 Explain how to summon assistance or seek advice on the operation of equipment			
9. Know the type of problems that can occur in the operating, monitoring and maintenance of equipment and how these problems might be overcome.	9.1 Describe 3 problems that can occur in the operating, monitoring and maintenance of equipment and explain how these might be overcome.			

Assessor comments/feedback

H/600/8332	Know how to Operate Glass Processing Equipment	Level 2	5 Credits
GRO6			

This unit is focused on the knowledge required to be able to start up, operate and shut down a range of equipment used in the glass processing environment, and know how to carry out basic maintenance work. There is also the requirement for knowledge of associated problems and solutions.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know what the products of the organisation are and the processes that are carried out.	1.1 List 4 different glass products of the organisation.			
	1.2 List 3 different processes carried out by the organisation			
2. Know the equipment the organisation uses to process the products named in 1.1.	2.1 List the equipment the organisation uses to process the products named in 1.1.			
3. Know what information is required to operate equipment correctly and where this information can be found.	3.1 Explain what information is required to operate equipment correctly			
	3.2 Explain how to find the required information.			
4. Know how to start up the equipment in accordance with manufactures and organisational guidelines	4.1 Explain how to start up and shut down 3 pieces of equipment correctly			
5. Know how to shut down the equipment in accordance with manufactures and organisational guidelines	5.1 Explain the shut down procedure for 3 different pieces of equipment when: • Normal shut down is required • Emergency shut down is required			
6. Know why it is important to monitor the performance of equipment and how to do this.	6.1 Explain why it is important to monitor the performance of equipment and explain how to do this correctly.			
7. Know how to identify and carry out basic maintenance	7.1 Explain how to identify basic maintenance requirements of the equipment and how to meet these requirements.			
	7.2 Explain why it is important to carry out basic maintenance			
8. Know how to summon assistance or seek advice on the operation of equipment	8.1 Explain how to summon assistance or seek advice on the operation of equipment			
9. Know the type of problems that can occur in the operating, monitoring and maintenance of equipment and how these problems might be overcome.	9.1 Describe 3 problems that can occur in the operating, monitoring and maintenance of equipment and explain how these might be overcome.			

Assessor comments/feedback

D/600/8345	Know how to Operate Equipment for Fabricating Glass Supporting Systems	Level 2	5 Credits
GRO7			

This unit is focused on the knowledge required to be able to start up, operate and shut down a range of equipment used in the fabrication of glass supporting systems, and know how to carry out basic maintenance work.
There is also the requirement for knowledge of associated problems and solutions.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know what the products fabricated by the organisation are.	1.1 List 4 different products fabricated by the organisation.			
2. Know the equipment the organisation uses to fabricate products.	2.1 List the equipment the organisation uses to fabricate the products named in 1.1.			
3. Know what information is required to operate equipment correctly and where this information can be found.	3.1 Explain what information is required to operate equipment correctly			
	3.2 Explain how to find the required information.			
4. Know how to start up the equipment in accordance with manufactures and organisational guidelines	4.1 Explain how to start up and shut down 3 pieces of equipment correctly			
5. Know how to shut down the equipment in accordance with manufactures and organisational guidelines	5.1 Explain the shut down procedure for 3 different pieces of equipment when: • Normal shut down is required • Emergency shut down is required			
6. Know why it is important to monitor the performance of equipment and how to do this.	6.1 Explain why it is important to monitor the performance of equipment and explain how to do this correctly.			
7. Know how to identify and carry out basic maintenance.	7.1 Explain how to identify basic maintenance requirements of the equipment and how to meet these requirements.			
	7.2 Explain why it is important to carry out basic maintenance			
8. Know how to summon assistance or seek advice on the operation of equipment	8.1 Explain how to summon assistance or seek advice on the operation of equipment			
9. Know the type of problems that can occur in the operating, monitoring and maintenance of equipment and how these problems might be overcome.	9.1 Describe 3 problems that can occur in the operating, monitoring and maintenance of equipment and explain how these might be overcome.			

Assessor comments/feedback

A/600/8353	Know how to Replace and Repair Fixed Glass Components in Vehicles	Level 2	4 Credits
GRO8			

This unit is focused on the knowledge required to carry out the repair and replacement of fixed glasses in vehicles. This includes the knowledge of pre work procedures, problem solving and recording of information.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the different methods by which glass can be fixed into a vehicle.	1.1 Explain the difference between direct and indirect glazed.			
	1.2 List the 2 most common rubber types used in indirect glazing.			
2. Know the different methods of removing a fixed glass from a vehicle and when each method is most suitable.	2.1 Describe 3 methods of removing a fixed glass from a vehicle.			
	2.2 Explain when each of the stated methods would be most suitable.			
3. Know the benefits of completing a vehicle inspection and vehicle protection before removing the glass from the vehicle or commencing the repair.	3.1 Explain one benefit of carrying out each of the following before commencing work on the vehicle: • Inspection for existing damage • Checks on mechanical or electrical functions related to the replacement • Protecting the vehicle from possible damage.			
4. Know how to check fixed automotive glass for suitability against the job specification.	4.1 Explain how to check a fixed automotive glass for suitability. State 4 things that need to be checked.			
5. Know how to locate manufacturer's instructions and/ or organisation guidelines on the removal and installation of fixed automotive glass.	5.1 Explain where to locate manufacturer's instructions and/or organisation guidelines on the removal and installation of fixed automotive glass.			
6. Know how to minimise damage and corrosion to vehicle, structures and fittings.	6.1 Explain how to minimise damage and corrosion to vehicle, structures and fittings.			
7. Know how to correctly store removed and reusable materials and components.	7.1 Explain how to store removed and reusable materials in a manner that prevents damage and allows operational efficiency.			
8. Know the type of debris that has to be removed from a vehicle and how to dispose of it safely.	8.1 Describe the type of debris that has to be removed from a vehicle.			
	8.2 Explain how to dispose of debris safely.			
9. Know the type of problems that can occur to a vehicle aperture and how to overcome them.	9.1 List three problems that can occur to a vehicle aperture and how to overcome them.			
10. Know how to confirm the requirements for the preparation of apertures.	10.1 Explain how to confirm the requirements for the preparation of apertures.			
11. Know the factors that can impact upon the installation of fixed glass components, and how to minimise the impact.	11.1 State 3 factors other than the condition of the aperture that can impact upon the installation of fixed glass components, and what these factors will affect.			
	11.2 Describe solutions to minimise the impact of the factors listed above.			
12. Know how to provide a secure, waterproof installation.	12.1 Describe the process to be followed to provide a secure waterproof installation.			

A/600/8353	Know how to Replace and Repair Fixed Glass Components in Vehicles (continued)	Level 2	4 Credits
GRO8			

13. Know how to confirm the replaced glass and associated components are functioning correctly and why this is important.	13.1 Explain how to confirm that the replaced glass and associated components are functioning correctly.			
	13.2 Explain why the confirmation of functions is important .			
14. Know the type of information to be recorded about the installation and where to record it.	14.1 Explain what information needs to be recorded to comply with organisational guidelines.			
	14.2 Explain where to record it.			
	14.3 Explain 2 benefits of recording information of the installation.			
15. Know the regulations and guidelines that limit the type of repair that can be carried out.	15.1 Identify the regulations and guidelines that limit the type of repair that can be carried out and explain how these apply in practice.			
16. Know how to assess damage to fixed glass components and determine if repairs can be affected.	16.1 Explain how to assess damage to fixed glass components and how to determine if repairs can be affected.			
17. Know the correct procedure for carrying out a repair to a damaged fixed glass component.	17.1 Describe the correct procedure for carrying out a repair to a damaged fixed glass component.			
18. Know the type of problems that can arise in the repair of fixed glass components and how these might be overcome.	18.1 Describe 3 problems that can arise in the repair of fixed glass components and explain how these might be overcome.			
19. Know what information needs to be recorded for repair operations and how and why this is done.	19.1 Explain what information needs to be recorded for repair operations.			
	19.2 Explain how the information is recorded.			
	19.3 Explain the benefits of recording the information.			

Assessor comments/feedback

Y/600/8358	Know how to Install Glass into Glazing Installations	Level 2	5 Credits
GRO9			

This unit aims to provide the learner with the knowledge and skills to install glass and or panels into windows and doors. It deals with types of panels, products and materials to ensure an effective installation.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to obtain, confirm and interpret the specification for the installation.	1.1 Explain how to obtain and confirm the specifications for the installation.			
	1.2 Explain how to interpret the specification.			
2. Know what preparations are required prior to commencing the installation and why this is necessary.	2.1 Describe the preparations required prior to commencing the installation.			
	2.2 Explain why this preparation is necessary.			
3. Know which regulations and codes of practice apply to glazing activities and what aspects of glazing are covered.	3.1 State which regulations and codes of practice apply to glazing activities.			
	3.2 Give 3 examples of what the regulations and codes of practice cover.			
4. Know which type of glass to use in the different glazing installations and where to find this information.	4.1 State which type of glass to use in different glazing installations, giving 3 examples.			
	4.2 Explain where to locate information on the types of glass that must be used in different glazing. installations to comply with legislation and statutory regulations.			
5. Know the different methods of installing glass for frames of different materials.	5.1 Describe the methods of installing glass in frames made of: • PVCu • wood • aluminium • steel			
6. Know the materials, tools and equipment that may be required for the glazing operations.	6.1 List the materials, tools and equipment that may be required for the glazing operations, giving four examples of each.			
7.1 Know what information needs to be discussed with the customer prior to work commencing.	7.1 Explain 3 pieces of information that should be discussed with the customer prior to work commencing.			
	7.2 Explain why these pieces of information should be discussed before commencing work.			
8. Know how to weatherproof the installation.	8.1 Describe how to weatherproof the installation, explaining 4 types of materials that can be used, and their use.			
9. Know why it is important for drainage holes to be clear and functioning and how to ensure they are functioning.	9.1 Explain why it is important for drainage holes to be clear and functioning.			
	9.2 Explain how to ensure they are functioning effectively.			

Assessor comments/feedback

Y/600/8358	Know how to Install Glass into Glazing Installations (continued)	Level 2	5 Credits
GRO9			

10. Know how to fit the glass correctly and securely into apertures.	10.1 Explain how to fit the glass correctly and securely into apertures.			
11. Know the type of problems that can arise when fitting glass into apertures and how these problems can be overcome.	11.1 Describe 3 problems that can arise when fitting glass into apertures and explain how these problems might be overcome.			
12. Know how to finish off the work and clear up the site.	12.1 Explain how to finish off the work to the job specification and the satisfaction of the customer.			
	12.2 Explain how to ensure that the site is cleared up to the satisfaction of the customer.			
13. Know how to correctly dispose of waste and surplus materials.	13.1 Explain how to safely dispose of waste and surplus materials in a way that protects the environment.			
14. Know what final checks need to be carried out to ensure that the installation meets specification and customer's requirements.	14.1 Describe the checks that need to be carried out to ensure that the installation meets specifications and the customer's requirements.			
15. Know the type of problems that can arise when completing the work and how these problems might be resolved.	15.1 Describe 3 problems that can arise when completing the work and explain how these might be resolved.			
16. Know what communications need to take place with the customer on completion of the work, and how to deal with questions or complaints.	16.1 Explain 3 pieces of information that should be discussed with the customer on completion of the work.			
	16.2 Explain why these pieces of information should be discussed on completion of the work.			
	16.3 Explain how to deal with a question on the completed work that you cannot answer			
	16.4 Explain how to deal with a complaint from the customer about the installation that you cannot resolve			
17. Know the type of problems that can arise when completing the work and how these problems might be resolved.	17.1 Describe 3 problems that can arise when completing the work and explain how these might be resolved.			
18. Know what information needs to recorded on completion of the work and how to do this.	18.1 Describe the information that needs to be recorded on completion of the work and explain how this should be done.			

Assessor comments/feedback

R/600/8360	Know how to Shape Glass for Glazing Installations	Level 2	4 Credits
GRO10			

This unit is focused on the knowledge required to shape glass, the equipment used and how to deal with associated problems.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know how to obtain and correctly interpret the specification for the glass to be cut.	1.1 Explain how to obtain the specification for the glass to be cut.			
	1.2 Correctly explain what the specification means in practice			
	1.3 Explain how to ensure the glass meets specification.			
2. Know what equipment is required for measuring the glass and how the measuring is done.	2.1 Identify the correct equipment for measuring the glass.			
	2.2 Explain how the measurements are done.			
3. Know the different types of glass used in glazing installations and what their features are.	3.1 List 6 different types of glass used in glazing installations and describe the features of each.			
4. Know which regulations and codes of practice apply to glazing activities and which aspects of glazing are covered.	4.1 State which regulations and codes of practice apply to glazing activities.			
	4.2 Give 3 examples of what the regulations and codes of practice cover			
5. Know how to identify a suitable location and equipment for shaping the glass	5.1 Explain 3 things to consider when identifying a suitable location for shaping the glass			
	5.2 Describe 4 pieces of equipment used for shaping glass and the purpose of each piece			
6. Know how to select equipment and shape the glass according to the specification and minimising wastage.	6.1 Explain how to select the correct equipment.			
	6.2 Explain how to ensure that the glass is used effectively to minimise wastage.			
	6.3 Explain how the glass needs to be cut/shaped giving 3 examples, including cutting radii.			
7. Know the type of problems that can occur in the shaping and cutting of glass and how these problems might be resolved.	7.1 Describe 3 problems that can arise in the cutting and shaping of glass and explain how these problems might be overcome.			
8. Know what information needs to be recorded on the shaping and cutting of glass and how this is done.	8.1 Explain what information needs to be recorded on the shaping and cutting of glass.			
	8.2 Explain how the information is recorded.			

Assessor comments/feedback

T/600/8366	Know how to Install Glass Supporting Frames/Systems	Level 2	5 Credits
GRO11			

The aim of this unit is to provide the learner with the skills and knowledge to install glass supporting frames to specification.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the equipment that is typically used for ground level and above ground work.	1.1 List the equipment that is typically used for ground level work, giving 6 examples.			
	1.2 List 3 types of access equipment that is typically use			
2. Know which tools are typically used for installing glass supporting frames.	2.1 List 6 types of tools which are typically used for installing glass supporting frames and explain the purpose of each tool			
3. Know which regulations and codes of practice apply to the installation of glass supporting frames and which aspects they cover.	3.1 State which regulations and codes of practice apply to the installation of glass supporting frames.			
	3.2 Give 3 examples of what the regulations and codes of practice cover and how they apply to the installation of glass supporting frames.			
4. Know how structural props and supports are used and understand why they are used.	4.1 Describe the use of structural props and supports and explain why they are used.			
5. Know how to obtain and correctly interpret the specification for the installation work.	5.1 Explain how to obtain the specification for the installation work.			
	5.2 Explain how to interpret a specification			
6. Know how to ensure frames are checked and prepared correctly and why this is important.	6.1 Explain how frames are checked and prepared correctly.			
	6.2 Explain why it is important to check and prepare frames correctly. List 3 critical factors.			
7. Know how to establish the correct position for the glass supporting frames and how to ensure that the frames are the correct size, shape and appearance for the installation.	7.1 Explain how to establish the correct position for the frame(s).			
	7.2 Explain how to carry out measurements to ensure the frames are the correct size.			
	7.3 Explain how to ensure the frames are the correct shape and appearance.			
8. Know the different methods for fixing frames.	8.1Explain fixing methods in accordance with current codes of practice for frames of 3 different materials :			
	8.2 Give three examples of different types of structure and explain how installation materials would be secured to them.			
	8.3 Explain why the fixing method chosen in each of the examples for 8.2 is the correct one			
9. Know which sealing and bonding materials need to be used and how to use them correctly.	9.1 List the sealing and bonding materials that need to be used for different installations. Give three examples.			
	9.2 Explain how to correctly use the sealing and bonding materials.			
10. Know why it is important to have drainage holes clear and functioning and how to ensure this is so.	10.1 Explain why it is important to have drainage holes clear and functioning.			
	10.2 Explain how to ensure the holes are clear and functioning.			
11. Know how to ensure frames are plumb after being secured and that they function correctly.	11.1 Explain how to ensure frames are plumb after being secured.			
	11.2 Explain how to ensure the frames function correctly.			
	11.3 Explain 3 ways to make adjustments to the installation if required.			

T/600/8366	Know how to Install Glass Supporting Frames/Systems (continued)	Level 2	5 Credits
GRO11			

12. Know how to reach agreements with the customer.	12.1 Explain how to reach agreements with the customer. For example on the position of fixtures and fittings.			
13. Know how to ensure that all fixtures and fittings are secured and that all work blends in with existing surrounds and surfaces.	13.1 Explain how to ensure existing fixtures and fittings are undamaged.			
	13.2 Explain how to ensure fixtures and fittings are secure and blend in with the surrounds.			
	13.3 Explain how to fill any redundant fixing positions or holes with the correct materials.			
	13.4 Explain how to apply finishing materials, consistently and completely so that they are level and comparable with existing surfaces.			
14. Know why it is important to remove all materials and debris from the installation site and how this should be done.	14.1 Explain why it is important to remove all materials and debris form the sire.			
	14.2 Explain how to remove all materials and debris from the site ensuring environmental issues are considered			
15. Know how to finish off the work correctly and carry out a final inspection.	15.1 Explain how to finish off the work to specified requirements.			
	15.2 Explain how to carry out a final inspection.			
16. Know what to discuss with the customer and how to do this to their satisfaction.	16.1 Explain 3 things to discuss with a customer regarding the installation and why these are important.			
	16.2 Explain how to check that the customer understands.			
	16.3 Explain how deal with a question from a customer that you cannot answer.			
17. Know why it is important to check whether any materials need to be restocked and how this is done.	17.1 Explain why it is important to check whether any materials need to be restocked.			
	17.2 Explain how to check if any materials need to be restocked and how to do the restocking.			
18. Know the type of problems that can arise in the installation of glass supporting frames and how these might be resolved.	18.1 Describe 3 problems that can arise in the installation of glass supporting frames and explain how these problems might be resolved.			
19. Know why it is important to record information clearly, accurately and completely and how this should be done.	19.1 Explain why it important to record information clearly, accurately and completely.			
	19.2 Explain how to record information.			

Assessor comments/feedback

T/600/8495	Knowledge of the Fascia, Soffit and Bargeboard Removal and Installation Process	Level 2	4 Credits
GRO19			

The aim of this unit is to provide the learner with the knowledge of materials, processes and regulations within the Fascia, Soffit and Bargeboard industry. The learner is also required to understand the Working at Heights regulations apply to the installation process.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the materials used in Fascia Soffit and Bargeboard installation.	1.1 List the materials used in the installation of fascias, soffits and bargeboards.			
2. Know the equipment/tools used for installation.	2.1 State 3 pieces of equipment or tools used to install fascias, soffits or bargeboards or related products			
	2.2 Explain what each piece of equipment or tool is used for.			
3. Know how the Working at Heights Regulations apply to the installation of Fascias, Soffits and Bargeboards and where to find this information.	3.1 Explain how the Working at heights regulations apply to the installation of fascias, soffits and bargeboards			
	3.2 Explain where to find information on the Working at Heights Regulations.			
4. Know how to handle equipment and materials to reduce the risk of damage to them and injury to self and other persons.	4.1 Describe the factors that can cause injury or damage during the handling and transportation of installation materials to include: • Fascias • Soffits • Rainwater systems			
	4.2 Explain how to reduce the potential of causing injury or damage for each of the materials listed in 3.1.			
5. Know how to establish the preparatory work that is required on existing materials.	5.1 Explain how to establish the preparatory work required on existing materials.			
6. Know the type of materials which need to be removed and how to identify which are structural and non structural.	6.1 Describe the type of materials that may need to be removed.			
	6.2 Explain how to Identify which materials are structural and non structural.			
	6.3 Explain what to do when structural materials need to be removed.			
	6.4 Explain what to do if asbestos is revealed or suspected.			
7. Know the health and safety requirements and statutory and industry regulations which apply to removing materials containing asbestos cement and where to obtain the information.	7.1 State which health and safety requirements and statutory and industry regulations apply and explain how these relate to the removal of materials containing asbestos cement.			
	7.2 Explain where information relating to health and safety and statutory legislation regarding asbestos can be obtained			
8. Know the types of fixings used for attaching to replacement materials and their use.	8.1 Describe 3 fixings specified by Manufacturers used in preparatory work and their purpose.			
9. Know how to dispose of unwanted materials.	9.1 Explain how to dispose of 3 different unwanted materials and what to consider when disposing of them.			
10. Know how to complete the installation and what information to provide the customer with at the handover.	10.1 Explain the tasks to be completed after installation and before hand over to the customer.			
	10.2 Explain 3 pieces of information that a customer may require at the handover.			
	10.3 Explain why this information is important.			

Y/600/6660	Knowledge of Curtain Walling Systems	Level 2	3 Credits
CW5			

The aim of this unit is to provide the learner with knowledge of the components of curtain walling systems and subsequent installation of Curtain Walling.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Understand the purposes and functions of a generic Curtain wall/Façade system	1.1 Describe the purposes of a curtain wall system in terms of aesthetics, functionality and compliance with the relevant Building Regulations			
	1.2 Describe 2 methods of Draining & Ventilating a Curtain Wall system			
2. Understand the major components of a Curtain Wall system	2.1 Describe 2 major structural components of a standard curtain wall system			
	2.2 Describe the components for joining structural components of a standard curtain wall system			
	2.3 Describe the functions of the components required to weatherproof the system			
3. Understand how to fix a curtain wall to a structure	3.1 Describe the various fixing methods			
	3.2 Name 3 different materials the structure may be made of and explain the implications for the fixings			
4. Understand how to glaze into a curtain wall system.	4.1 Describe how to glaze a window and door into a wall			
	4.2 Describe how to temporary glaze glass/panel into a curtain wall			
	4.3 Describe how to permanently glaze glass/panel into a curtain wall			
5. Understand how to utilise edge details to seal the curtain wall to adjacent structures	5.1 Describe a typical side edge detail and how it is weatherproofed			
	5.2 Describe a typical floor detail and how it is weatherproofed			
	5.3 Describe a typical head detail and how it is weatherproofed			

Assessor comments/feedback

L/502/9715	Knowledge of Photovoltaic Systems	Level 3	6 Credits
PV2			

The aim of this unit is to provide the learner with the underpinning knowledge of PV systems, requirements, components and properties. This includes understanding of typical problems and their likely causes.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the properties of a Photovoltaic system.	1.1 Explain how a Photovoltaic system works.			
	1.2 Name the 3 types of PV technology used in panels.			
	1.3 Explain the difference between Grid-Connected and Off-Grid systems.			
	1.4 Name the material that PV panels are constructed from.			
	1.5 Name the type of current generated by PV panels.			
	1.6 Explain how this is converted to be suitable for use.			
2. Understand the meaning of common words and terms used in the Photovoltaic working environment.	2.1 Explain the meaning of the following: • Cell • Module • String • Array			
	2.2 Explain the meaning of: • kWp • Kwh • Voc • Isc • STC • Commissioning • Grid Connection			
	2.3 Describe the following terms with regards to roofs: • Gable • Hipped • Half Hipped • Trusses • Rafters • Struts • Tie beams • Purlin • Ridge board • Eaves			
3. Know the International Standards that PV modules are tested to.	3.1 Name the 2 International Standards that apply to PV modules.			
	3.2 Explain how to confirm the modules have been approved to the required standard.			
	3.3 Explain the importance of compliance with MCS accreditation.			
4. Understand the conditions necessary for an effective Photovoltaic system.	4.1 Identify the ideal conditions for an effective PV system.			
	4.2 Explain how to compensate for conditions that reduce the amount of output.			
	4.3 Know the amount of power used in an average 3 bedroom house.			
	4.4 Know how to calculate the potential power that a specified system can generate.			

L/502/9715	Knowledge of Photovoltaic Systems (continued)	Level 3	6 Credits
PV2			

5. Know the major components needed in a PV system and their purpose.	5.1 List 5 main components required in a PV system.			
	5.2 Describe the properties of each component.			
	5.3 Explain the purpose of each component.			
	5.4 Give an example of a suitable location for each component.			
6. Know the legislation and safety precautions to take with PV systems.	6.1 Explain 3 parts of the installation that must take note of the Building Regulations.			
	6.2 Explain what work relating to PV Installation must be carried out by a qualified Electrician.			
	6.3 Name the components that should be labelled, what information should be included and how it should be recorded.			
	6.4 Describe the current safety precautions to take with PV systems.			
7. Understand the requirements for planning permission with PV installations.	7.1 Explain how to check the requirements for planning permission in England, Wales, Scotland or Northern Ireland.			
	7.2 State 3 types of building or location where planning permission may be required.			
8. Know the typical problems that can arise and their possible causes.	8.1 Describe 2 problems that can cause no system output during the day and what to check.			
	8.2 Describe 2 problems that can be indicated by the system output being lower than expected and what to check.			
	8.3 Describe 2 possible reasons that system output is lower than previously produced and what to check.			

Assessor comments/feedback

F/602/3940	Employment rights and responsibilities in the processing and manufacturing industries	Level 2	3 Credits
ERR1			

The aim of this unit is to ensure that individuals have a general insight into the processing / manufacturing industry as a whole, its purpose, and the roles, responsibilities and rights of employees and employers.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know what is included in the Induction Process.	1.1 Explain what the term "induction" means, why it is necessary for new employees; when it begins; its duration, and who conducts it.			
	1.2 Explain what subjects and issues are covered during an induction.			
	1.3 Describe what information sources concerning the industry, the company and career paths are readily available.			
2. Know the basic concepts of Employment Law.	2.1 Describe the key features of a Contract of Employment.			
	2.2 Explain how the "Working Time Directive" governs contractual working hours and holiday entitlements.			
	2.3 Explain how Data protection legislation impacts upon employer – employee relationships.			
	2.4 State the rights of an employee in Discipline Grievance and Dismissal issues.			
3. Know the basic principles of how safety, health and environmental legislation applies to their industry.	3.1 Explain the prime employer/employee rights and responsibilities within the workplace, towards the general environment and the public at large.			
	3.2 Describe the key, potential hazards for people and the environent and how these are dealt with, through legislation and good practice.			
	3.3 Explain the general principles of statutory, workplace risk assessment processes.			
4. Know the purpose of the Industry, it's processes and key stakeholders.	4.1 State the main purpose of the Industry.			
	4.2 State the key materials, equipment and processes involved in the industry.			
	4.3 State guidance and documentation relevant to the job role			
	4.4 State the major organisations associated with the industry and the role that they play. To include: • Competitors • Suppliers • Customers • Federations/Associations			
5. Know how their job role fits within the organisation.	5.1 Obtain the organisation structure, and explain job roles and reporting structures.			
	5.2 State how their role contributes to the organisation's aims.			
6. Know how discrimination and harassment can affect the workplace.	6.1 State the Acts relative to Gender, race, age and pay.			
	6.2 State the responsibilities of Trade Unions and the benefits to employees			

Assessor comments/feedback

Notes

Notes

GQA, 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