



**GQA LEVEL 2 CERTIFICATE IN UNDERSTANDING
THE PRINT WORKING ENVIRONMENT**

Qualification Number 600/2755/1

Welsh Qualification Number C00/1250/6

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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 the print production working environment, and is particularly suited to individuals undertaking an apprenticeship within the print production working environment. Establishing underpinning knowledge and understanding relevant to the print 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 generic print industry unit and a unit on employment rights and responsibilities, the optional pathways within the qualification will ensure there is a qualification to cover the individual occupational roles in the print production working environment. Further qualifications are available at Level 3 and for those employed in an administrative role within the print industry.

What is required from candidates?

GQA 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 2 mandatory units, which have a value of 9 credits and 5 pathways made up of optional units. Candidates must achieve both mandatory units, plus either 11 or 12 credits as specified in the pathway selected. The units are made up of the knowledge needed to carry out the work 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 200 hours.

Unit Ref	Title	Level	Credit
Mandatory Units			
K/503/4047	Knowledge of working practices in the print industry	2	6
PTC001			
F/602/3940	Employment Rights and Responsibilities in the Processing and Manufacturing Industries	2	3
ERR1			
Pathway 1 - Desktop Publishing			
L/503/4039	Knowledge of Company productivity, cost effectiveness and quality assurance requirements in DTP and Pre-press work	2	6
PTC002			
R/503/4043	Knowledge of the Principles of Desktop Publishing	2	5
PTC005			
Pathway 2 - Pre-Press			
L/503/4039	Knowledge of Company productivity, cost effectiveness and quality assurance requirements in DTP and Pre-press work	2	6
PTC002			
Y/503/4044	Knowledge of the Principles of Digital pre-press processes	2	5
PTC004			
J/503/4041	Knowledge of the Machine Printing Processes	2	6
PTC007			
Pathway 3 - Machine Printing			
A/503/4036	Knowledge of Company productivity, cost effectiveness, quality assurance and maintenance requirements in Machine Printing or Print Finishing Work	2	6
PTC003			
J/503/4041	Knowledge of the Machine Printing Processes	2	6
PTC007			
Pathway 4 - Print Finishing			
A/503/4036	Knowledge of Company productivity, cost effectiveness, quality assurance and maintenance requirements in Machine Printing or Print Finishing Work	2	6
PTC003			
J/503/4038	Knowledge of Print Finishing Operations	2	6
PTC006			
Pathway 5 - Carton Manufacturing			
L/503/4042	Knowledge of the Principles of Carton Manufacturing/Enhancement Processes	2	5
PTC008			

A/503/4036	Knowledge of Company productivity, cost effectiveness, quality assurance and maintenance requirements in Machine Printing or Print Finishing Work	2	6
PTC003			

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 qualification title.

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 through 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.

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 Knowledge 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 what he/she knows. The assessment criteria / qualification requirements are described within the qualification and / or unit of credit itself and could incorporate practical skills in addition to primary evidence of 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. 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 (one of):

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

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.

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.

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 be acceptable if the candidate is working in a glass or glass related environment Simulation – from circumstances specially designed to enable the candidate's knowledge and / or performance to be assessed. 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.

The centre must obtain GQA EQA approval for the use of simulation.

Personal Profile

A personal profile is helpful both to the qualification candidate and those involved in assessing and/or verifying competence and the use of such a document should be encouraged.

Candidates new to the sector and working primarily in an off-the-job learning environment will develop/compile a personal profile during the implementation of the Technical Certificate / GQA Knowledge Qualification. Whilst it may not be immediately evident with the help of centre staff, the candidate may be able to identify some auditable prior skills and / or knowledge that may be transferable to the glass related occupational role.

Candidates already in employment in the sector will be able to provide a relevant personal profile and be able to demonstrate aspects of their skills/knowledge using real workplace experiences.

Evidence Guide/Brief

This section is intended to provide a guide for any training plans, reports or assignments produced to support the implementation of the Technical Certificate / GQA Knowledge Qualification. Report / Assignment topics should reflect activities from the occupational area chosen and should be agreed by both candidate and assessor.

1. Introduction - Provide an explanation of the proposed assignment activity and its expected outcome.
2. Preparatory Work - This section should cover the actions and issues required prior to carrying out the main practical activity.
3. Practical Work - This will incorporate a step-by-step account of the practical activity incorporating appropriate quality procedures.
4. Quality Review - This will incorporate an account of the relevant quality checks in relation to the anticipated outcome e.g. in terms of product and/or customer expectations.

NB1 The above will take account of the prescribed format of the practical activities and underpinning knowledge requirements as described within the qualification booklet (standard and assessment guidance).

NB2 All of the above stages will incorporate individually as appropriate:

- Health and Safety regulations and requirements
- Products, materials and equipment
- Handling products and materials e.g. movement of and storage of, hazardous and non-hazardous materials
- Communications including working relationships, information systems, locating and recording
- Standard operating procedures
- Quality issues as appropriate e.g. systems and checks
- Problems, their repercussions and resolution

In terms of content, language and requirements, evidence within a Technical Certificate / GQA Knowledge Qualification portfolio of evidence should satisfy terms such as explain, report, identify and investigate.

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 has the knowledge to meet the requirements of the qualification and / or unit of credit?

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.....

K/503/4047	Knowledge of working practices in the print industry	Level 2	6 Credits
PTC001			

The aims of this unit are to ensure the learner has knowledge and understanding of Health and Safety and communication within the Print working environment, including hazard awareness, risk assessments, accident and emergency procedures. The unit also requires knowledge of the departments and output from the Organisation worked for. There is a need to understand how to identify and understand the need for self development. Finally the learner must show an awareness of the legal requirements affecting the Print Industry

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know the health and safety acts, regulations and guidelines that apply to the print working environment.	1.1 Under the Health and Safety at Work Act 1974, describe: <ul style="list-style-type: none"> • The Employee’s primary legal responsibilities • The Employer’s primary legal responsibilities 			
	1.2 Explain the meaning and purpose of C.O.S.S.H. regulations.			
	1.3 Explain how to obtain further accurate information on health and safety acts, regulations and guidelines.			
2. Know how to carry out an assessment of hazards and risks in the print working environment and the types of hazards or risks that can occur.	2.1 Describe the steps in carrying out a risk assessment.			
	2.2 Give 3 examples of risks or hazards that can occur in the print working environment.			
	2.3 List the chemicals used in the printing industry that are covered by the Hazardous Waste (England and Wales) Regulation 2005 and require disposal to a licensed carrier.			
	2.4 Explain the actions required when discovering unsafe working conditions.			
3. Know how to adopt safe working practices.	3.1 State the employer’s and manufacturer’s instructions available for equipment in your work area and how to access them.			
	3.2 List any equipment used in the printing industry which is not permitted to be used by anyone under 18 years of age.			
	3.3 Describe three tasks in your work area and the equipment and personal protective equipment (PPE) used.			
	3.4 Explain the choices of equipment and personal protective equipment given in the example above.			
	3.5 Explain what to do if the required PPE or tools and equipment are not fit for purpose.			
	3.6 Describe the Company procedures for disposing of chemicals, solvents and special waste to comply with legislation.			
	3.7 Explain the meaning of 3 safety signs displayed within the working area.			
4. Know how to ensure there is no unauthorised or unsafe access to the working areas.	4.1 Explain how to establish who is authorised to enter the work area.			
	4.2 Explain how to establish if a person is authorised to enter the work area.			
	4.3 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 Company procedures to follow in the case of an accident.			
	5.2 Describe the Company procedures to follow in the case of an emergency.			

K/503/4047	Knowledge of working practices in the print industry	Level 2	6 Credits	
PTC001	(continued)			
	5.3 Describe the procedure for evacuating workers and visitors.			
	5.4 Describe the procedure for reporting and recording accidents and emergencies, to include: <ul style="list-style-type: none"> • Internal accident book/records • Health and Safety Executive or Environmental Health Authority • Reporting and recording accidents under the RIDDOR regulations 			
	5.5 List the types and uses of fire extinguishers.			
6. Know what information to share with colleagues on your job role and why this is important.	6.1 Give 3 examples of information linked to your job role that needs to be shared with colleagues.			
	6.2 Explain why sharing information with colleagues is important.			
7. Know why it is important to respond promptly to requests.	7.1 Explain why it is important to respond promptly to requests from colleagues and customers and give 3 examples.			
8. Know why good working relationships with colleagues are important and how barriers to this can be overcome.	8.1 Explain why good working relationships are important.			
	8.2 Give 3 examples of problems in developing and maintaining good working relationships with colleagues and suggest solutions.			
9. Know the departments/job roles within the organisation and their area of responsibility.	9.1 List the departments/job roles within the organisation.			
	9.2 Explain the responsibilities of each department/job role.			
10. Know the products produced by the Organisation.	10.1 List the products produced by the organisation.			
	10.2 List the products produced by the specific departments worked in.			
	10.3 Name the materials used to produce the printed product.			
11. Know the types of equipment used within the organisation for print related work.	11.1 List 3 pieces of equipment/machinery used within the organisation for print related work.			
	11.2 Explain the purpose of each piece of equipment/machinery given in answer to 11.1.			
12. Know the printing processes/operations used within the department(s) worked in.	12.1 Name the printing processes/operations carried out within the department(s) worked in.			
13. Know how and why to identify opportunities and needs for self development and how to manage this information.	13.1 Explain 2 ways that a need to update skills and/or knowledge of the print industry can be identified.			
	13.2 Give 2 examples of how to check opportunities for self development related to the Print Industry.			
	13.3 Explain the benefits of keeping skills and knowledge up to date, give one example each of how it benefits: <ul style="list-style-type: none"> • The individual • The organisation 			
14. Understand the legal issues that govern working practices in the print industry.	14.1 Explain the meaning of the term 'copyright'.			
	14.2 Explain the main purpose of the Data Protection Act and the type of information a print company may hold that is covered by it.			

K/503/4047	Knowledge of working practices in the print industry (continued)	Level 2	6 Credits
PTC001			

	14.3 Explain the possible consequences of breaching laws covering printing and publishing processes.			
	14.4 Explain what information about a company must be included on stationery, e.g. letterheads, invoices etc.			
	14.5 Explain why some work must contain information of the printing company producing it.			

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 environment 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, its 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: <ul style="list-style-type: none"> • Competitors • Suppliers • Customers • Federations/Associations 			

Assessor comments/feedback

F/602/3940	Employment Rights and Responsibilities in the Processing and Manufacturing Industries (continued)	Level 2	3 Credits
ERR1			

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

L/503/4039	Knowledge of Company productivity, cost effectiveness and quality assurance requirements in DTP and Pre-press work	Level 2	6 Credits
PTC002			

The aim of this unit is to ensure the learner understands the pre-press/DTP processes, including profitability, quality assurance, proofing, storage and archiving. The learner must also demonstrate knowledge of terminology used in this aspect of printing.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Understand the processes carried out in pre-press and DTP.	1.1 Describe the main activities carried out in pre-press and DTP and the roles and responsibilities of the operators.			
	1.2 Describe the types of image carriers produced in prepress and the production processes they are used in.			
2. Know the issues that can affect profitable production and productivity.	2.1 List 5 key aspects of pre-press/DTP work that can affect productivity and/or profitability.			
	2.2 Explain the possible implications of not completing work on time or to the required standard.			
3. Know the purpose of quality assurance measures and control systems in use within the organisation.	3.1 Explain the purpose of quality assurance and the procedures it should cover.			
	3.2 Explain where to obtain information on expected standards of work and tolerances.			
	3.3 List the quality control tools and equipment used within pre-press/DTP work for maintaining quality standards and explain how they are used, to include: <ul style="list-style-type: none"> • Sampling • Inspections • Testing 			
	3.4 Explain what to do if quality standards are not met.			
	3.5 Explain how to obtain authorisation to release work for print and why this process must be followed.			
4. Know how to ensure pre-press/DTP work is completed to meet job specifications.	4.1 Explain the information that should be included on a job specification.			
	4.2 Explain the benefits of pre-press staff knowing the printing and post press requirements of a job.			
	4.3 Describe 3 problems that can occur in the preparation of pre-press/DTP jobs and explain how to overcome them, to include: <ul style="list-style-type: none"> • Problems with material supplied • Problems with equipment 			
	4.4 Explain what to do if a job specification is not clear/understood.			
	4.5 Explain how and why to protect customer supplied artwork from loss or damage.			
5. Know the main issues connected to proofing digital documents.	5.1 Describe the purpose of a proof, and what checks should take place.			
	5.2 Explain the types of proofs available.			
	5.3 List the sequence of proof verification.			
	5.4 Explain the type of information to provide to a customer in respect of limitations of a proof supplied and why this is important.			
	5.5 Describe the advantages of using low resolution PDF files as proofs.			
	5.6 Explain why it is important to get auditable approval from a customer before handing the job over to further stages of production.			

L/503/4039	Knowledge of Company productivity, cost effectiveness and quality assurance requirements in DTP and Pre-press work (continued)	Level 2	6 Credits
PTC002			

6. Understand the storage and archiving procedures for pre-press/DTP work.	6.1 Describe the Company procedures and requirements for the safety, security and storage of customers work.			
	6.2 Explain the benefits of backing up digital files.			
	6.3 Explain the identification methods used to ensure materials are clearly identified.			
7. Understand the terminology used in pre-press/DTP.	7.1 Explain the meaning of the following: <ul style="list-style-type: none"> • Digital • Analogue • Image carrier • Proof • Hi resolution • Low resolution • Cropping • PDF • Typography • Alignment 			

Assessor comments/feedback

R/503/4043	Knowledge of the Principles of Desktop Publishing	Level 2	5 Credits
PTC005			

The unit aims include knowledge and understanding of desktop publishing systems and processes, layout of documents, file formats and proofing. An understanding of the terminology used in this part of the print industry is also required to meet the unit aims.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Know the systems used in DTP.	1.1 Name the hardware commonly used in DTP.			
	1.2 Name 7 software applications commonly used in DTP.			
	1.3 List 3 ways of transferring digital documents between computers.			
2. Understand the terminology used in DTP.	2.1 Explain the meaning of the following: <ul style="list-style-type: none"> • Point sizes • Alignment • Font • Copyright • House style • Corporate identity • Logo • Pre-flight checks 			
	2.2 Explain the differences between 'bitmap' and 'vector'.			
	2.3 Explain the meaning of image resolution.			
	2.4 Explain the difference between 'portrait' and 'landscape'.			
3. Know the attributes and applications of digital fonts.	3.1 Explain the principal difference between 'serif' and 'sans serif' styles.			
	3.2 Explain the difference between 'symmetrical' and 'asymmetrical' designs.			
	3.3 State 4 variable characteristics that can be applied to a selected typeface.			
	3.4 Explain the meaning of the following in terms of alignment: <ul style="list-style-type: none"> • Aligned right • Aligned left • Centred • Fully justified 			
4. Understand how to deal with digital images.	4.1 Explain the meaning of the following abbreviations, and common uses of each: <ul style="list-style-type: none"> • TIFF • JPEG • EPS • BMP • GIF 			
	4.2 List 4 typical image types used in DTP work.			
	4.3 Explain one benefit and one possible disadvantage of each type.			
	4.4 Explain 5 methods for sourcing or creating digital images.			
	4.5 Explain one benefit and one possible disadvantage of each method listed.			
	4.6 List ways of enhancing/improving images and graphics.			
	4.7 Explain what is meant by 'wrapping' text around an image.			

R/503/4043	Knowledge of the Principles of Desktop Publishing (continued)	Level 2	5 Credits
PTC005			

5. Know the types of information required to set up and layout documents and why this is important.	5.1 Describe 6 pieces of information about a document and its content that can typically be required.			
	5.2 Explain how documents are usually numbered according to convention.			
	5.3 Give 2 factors that may influence the number of columns selected for a document.			
6. Know the main issues connected with colour in DTP.	6.1 Identify the main choices of colour mode for use in DTP systems.			
	6.2 Explain why colours on screen may vary from a printed product.			
	6.3 Explain 2 steps that can be taken to reduce the risk of unexpected differences between screen colour and printed colour.			
	6.4 Explain the term 'registration'.			
	6.5 Explain the meaning of the following terms: <ul style="list-style-type: none"> • Trapping • Knockout • Overprint • Colour separation 			
	6.6 Explain the viewing conditions that can affect the colour matching and selection process.			
	6.7 Explain the 'ideal viewing conditions' for effective colour matching.			
	6.8 Explain the meaning of 'calibration' with regards to monitors and printers.			

Assessor comments/feedback

Y/503/4044	Knowledge of the Principles of Digital pre-press processes	Level 2	5 Credits
PTC004			

The unit aims include knowledge and understanding of pre-press systems and processes, layout of documents, file formats and proofing. An understanding of the terminology used in this part of the print industry is also required to meet the unit aims.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Know the systems used in digital pre-press.	1.1 Name 5 pieces of hardware commonly used in digital pre-press operations.			
	1.2 Name 5 software applications commonly used in digital pre-press operations.			
2. Understand the terminology used in digital pre-press.	2.1 Explain the meaning of the following: <ul style="list-style-type: none"> • Point sizes • Alignment • Font • Copyright • Shadow • Highlight • Pre-flighting • Ripping • 'Shelf life' of an image carrier 			
	2.2 Explain the difference between 'brightness' and 'contrast' in relation to images.			
	2.3 Explain the differences between 'bitmap' and 'vector'.			
	2.4 Explain the meaning of image resolution and how this can affect the printed output.			
	2.5 Explain the meaning of imposition and 4 parameters that can affect this.			
	2.6 Explain the purpose of 'postscript'.			
3. Know the attributes and applications of digital fonts.	3.1 Explain the principal difference between 'serif' and 'sans serif' styles.			
	3.2 Explain the difference between 'symmetrical' and 'asymmetrical' designs.			
	3.3 State 4 variable characteristics that can be applied to a selected typeface.			
4. Know the common digital graphic file formats used for print and graphic communications.	4.1 Explain the meaning of the following abbreviations: <ul style="list-style-type: none"> • TIFF • JPEG • EPS • BMP • GIF 			
	4.2 Describe one advantage of compressing BMP images to JPEG.			
	4.3 Explain one possible disadvantage that can occur when compressing BMP images to JPEG.			
5. Know the types of information required to set up and layout documents and why this is important.	5.1 Describe 6 pieces of information about a document and its content that can typically be required.			
	5.2 Explain how documents are usually numbered according to convention.			
	5.3 Give 2 factors that may influence the number of columns selected for a document.			
	5.4 Explain what is meant by 'bleed' with regards to the page edge.			
	5.5 Explain how image resolution is normally expressed.			
	5.6 Explain the term 'screen ruling' and how it can be expressed.			

Y/503/4044	Knowledge of the Principles of Digital pre-press processes (continued)	Level 2	5 Credits
PTC004			

6. Know the main issues connected with colour in digital printing.	6.1 Identify the main choices of colour mode for use in digital printing.			
	6.2 State 2 steps that can be taken to reduce the risk of unexpected differences between screen colour and printed colour.			
	6.3 Explain the term 'registration'.			
	6.4 Explain the meaning of the following terms: <ul style="list-style-type: none"> • Trapping • Knockout • Overprint • Colour gamut 			
7. Understand the factors that can affect the quality of output.	7.1 List the pre-flight checks to make before passing a job for production.			
	7.2 List the checks to make before ripping a file.			
	7.3 Explain the checks to make before using an image carrier.			

Assessor comments/feedback

J/503/4041	Knowledge of the Machine Printing Processes	Level 2	6 Credits
PTC007			

The aim of this unit is to ensure the learner has knowledge of the machine printing processes and related products, materials and equipment. Knowledge of faults, problems and adjustments is also required to meet the unit aims.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Know the printing processes used within the print industry.	1.1 Name 5 main print processes used within the print industry.			
	1.2 Explain the basic principles of each process.			
	1.3 Name one product that can be produced by each process.			
	1.4 Name 3 stages of production workflow in print.			
2. Understand the factors that influence the choice of printing process.	2.1 Explain the advantages of each process.			
	2.2 Explain the disadvantages of each process.			
3. Understand the differences between 'in line' and 'off line' processes.	3.1 Explain the meaning of 'in line' and 'off line' processes.			
	3.2 Explain the possible benefits and disadvantages of in line processes.			
	3.3 Explain the possible benefits and disadvantages of off line processes.			
4. Understand the inks and ink drying equipment used in the print industry.	4.1 Describe the types and characteristics of inks and coatings.			
	4.2 Explain the operation of 2 of the following pieces of equipment: <ul style="list-style-type: none"> • Ink weighing and checking equipment • Viewing equipment • Spectrophotometers 			
	4.3 Explain three common problems with inks and coatings, and their likely causes.			
	4.4 Explain the Company procedure for recording and reporting faults/problems.			
	4.5 Explain quality assurance and control in relation to: <ul style="list-style-type: none"> • Techniques for controlling quality – testing, sampling • Equipment for controlling quality – light standards for colour viewing, spectrophotometers, colour reference books 			
	4.6 List the methods and processes available to dry inks.			
	4.7 Describe how to start up, operate and stop ink drying equipment for: <ul style="list-style-type: none"> • Normal use • Emergency situation 			
	4.8 Explain the Company procedure for the safe removal of waste from ink drying equipment.			
5. Know how to set up and run machinery.	5.1 Explain 4 things to check to ensure effective operation of the machinery.			
	5.2 Explain how to start up and shut down the machinery in: <ul style="list-style-type: none"> • Normal operation • Emergency situation 			
	5.3 Explain where to obtain information on the setting and operation of machinery.			

J/503/4041	Knowledge of the Machine Printing Processes (continued)	Level 2	6 Credits
PTC007			
	5.4 Explain the Company procedure for obtaining authorisation to begin production and why it is important to follow the procedure.		
	5.5 Explain when to monitor the quality of the output, give 3 examples of things to monitor.		
	5.6 Explain the Company procedure for the disposal of 2 types of waste.		
	5.7 Explain how to identify faults which: <ul style="list-style-type: none"> • Affect the quality of the product • Produce a shortfall in output 		
	5.8 Describe 3 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made.		
	5.9 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them.		
6. Know the substrates commonly used for printed products.	6.1 List 7 substrates that are used for printed products.		
	6.2 Give 2 examples of products typically produced using each substrate.		
	6.3 Name the print processes commonly used on each substrate.		
	6.4 Explain what factors can dictate the choice of substrate.		
	6.5 Describe the effect of humidity and temperature on substrates.		
7. Understand the terminology and processes used in machine printing.	7.1 Give 6 examples of trade terminology used in the printing work carried out and explain the meaning of each.		
	7.2 Explain the following processes and give an example of a product where each may be used: <ul style="list-style-type: none"> • Slitting • Folding • Sheeting • Coating • Creasing • Perforating • Die cutting • Punching • Stapling/stitching • Re-reeling • Numbering • Crimping • Varnishing • Laminating • Scoring 		
8. Know how to identify, correct and record machine faults.	8.1 Describe 3 faults that should be able to be corrected without summoning external assistance.		
	8.2 Explain how to obtain and analyse information about the machine faults to identify their likely cause.		

J/503/4041	Knowledge of the Machine Printing Processes (continued)	Level 2	6 Credits
PTC007			

	8.3 Explain how to correct the faults identified including the tools, equipment and PPE required.			
	8.4 Explain the Company procedures on reporting faults which fall outside their area of responsibility/ capability and the importance of following procedures.			
	8.5 Explain how to assess the estimated time it will take to rectify faults and the Company procedures on informing the relevant people.			
	8.6 Explain how and why to record the details of machine faults and production down-time following Company procedures.			

Assessor comments/feedback

A/503/4036	Knowledge of Company productivity, cost effectiveness, quality assurance and maintenance requirements in Machine Printing or Print Finishing Work	Level 2	6 Credits
PTC003			

The aim of this unit is to ensure the learner understands the Company productivity, cost effectiveness, quality assurance and maintenance requirements, including tools, equipment and methods used. Knowledge of the Company requirements for recording and reporting production and other associated details will also be required.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Know the issues that can affect profitable production and productivity.	1.1 List 5 key aspects of printing work that can affect productivity and/or profitability.			
	1.2 Explain the possible implications of not completing work on time or to the required standard.			
2. Know the purpose of quality assurance measures and control systems in use within the organisation.	2.1 Explain the purpose of quality assurance and the procedures it should cover.			
	2.2 Explain where to obtain information on expected standards of work and tolerances.			
	2.3 List the quality control tools and equipment used within the print industry for maintaining quality standards and explain how they are used, to include: <ul style="list-style-type: none"> • Sampling • Monitoring the production process • Monitoring finished output • Pass sheets 			
	2.4 Explain what to do if quality standards are not met.			
3. Know the recording and reporting systems used within the organisation to organise, control and record print production.	3.1 List the 3 common groups orders fall into.			
	3.2 Explain the information that should be included on an order/job bag.			
	3.3 Explain how the progress of the order is monitored and how this progress is recorded, to include: <ul style="list-style-type: none"> • Proofing • Authorisation for production • How to deal with a shift change 			
	3.4 Describe 3 problems that can cause delays with orders and how to avoid these problems.			
	3.5 Explain what to do if the job instructions are not clear/understood.			

Assessor comments/feedback

A/503/4036	Knowledge of Company productivity, cost effectiveness, quality assurance and maintenance requirements in Machine Printing or Print Finishing Work (continued)	Level 2	6 Credits
PTC003			

4. Know how to keep printing equipment clean and in working order.	4.1 Explain how to obtain maintenance plans and schedules.			
	4.2 Explain how to record removal and replacement of components and lubrication of machinery.			
	4.3 Explain how to carry out the cleaning and/or replacement of filters.			
	4.4 Describe the types of machine faults that need to be referred to the responsible person and why.			
	4.5 List consumables that are likely to require periodic replacement.			
	4.6 List three components which they have replaced, explaining method and tools.			
	4.7 Explain when and how to isolate the machinery to carry out the cleaning process.			
	4.8 Explain the reasons and benefits of regular cleaning and maintenance of machinery.			

Assessor comments/feedback

J/503/4038	Knowledge of Print Finishing Operations	Level 2	6 Credits
PTC006			

The unit aims include knowledge and understanding of the print finishing operations and associated materials, tools and equipment. An understanding of the terminology used in print finishing is also required to meet the unit aims.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Know the operations carried out in print finishing.	1.1 List the main operations in print finishing and binding.			
	1.2 Describe the folding schemes used in bindery.			
	1.3 Describe methods used to secure pre-printed products.			
	1.4 Explain the methods that can be used to enhance the appearance of the printed product.			
	1.5 Describe the special features that can be added to the paper during production.			
	1.6 Explain the basic principles of each process.			
	1.7 Name one product that each process can be used on.			
2. Understand substrates and how they interact in relation to paper and board.	2.1 Describe the considerations when handling paper and board.			
	2.2 Explain what is meant by grain direction and the methods used to identify it.			
	2.3 Explain how grain direction can have an effect on: <ul style="list-style-type: none"> • The printability of the substrate • The finished product 			
	2.4 Describe the effect of humidity and temperature on paper and board.			
	2.5 Describe the term 'conditioning'.			
	2.6 Explain dimensional stability and the effects on print register.			
	2.7 Describe the physical properties: <ul style="list-style-type: none"> • Smoothness • Whiteness • Porosity • Wet strength • Absorbency • Fibres and fibre properties of paper and board 			
	2.8 Explain the visual/optical properties: <ul style="list-style-type: none"> • Colour • Gloss • Opacity of paper and board 			
	2.9 Describe the meaning of the following terms and how the performance requirements could influence substrate selection: <ul style="list-style-type: none"> • Folding • Stiffness • Bursting strength • Tearing resistance • Tensile strength • Caliper and bulk • Abrasion resistance • Frictional resistance of paper and board 			
	2.10 Explain 4 testing techniques carried out on paper and/or board during manufacture.			
	2.11 Describe 3 types of paper and 2 types of board used and typical end uses of each type.			

J/503/4038	Knowledge of Print Finishing Operations (continued)	Level 2	6 Credits
PTC006			

	2.12 Explain the following terms used to identify paper/envelope sizes, giving 3 examples of a size used in each system: <ul style="list-style-type: none"> • RA and SRA sizes • A, B and C series 			
	2.13 Explain the systems used to identify: <ul style="list-style-type: none"> • 'Weight' of paper/board • Thickness of paper/board 			
	2.14 Describe the processes used in the recycling and de-inking of paper and board.			
3. Understand the adhesives used in print finishing processes.	3.1 List the types of adhesives available for bindery.			
	3.2 Explain how to determine which to use.			
4. Understand the differences between 'in line' and 'off line' processes.	4.1 Explain the meaning of 'in line' and 'off line' processes.			
	4.2 Explain the possible benefits and disadvantages of in line processes.			
	4.3 Explain the possible benefits and disadvantages of off line processes.			
5. Understand the terminology used in print finishing.	5.1 Explain the meaning of the following: <ul style="list-style-type: none"> • Layout master/imposition template • Grip and lay • Gathered • Inset 			
	5.2 Explain the following processes and give an example of a product where each may be used: <ul style="list-style-type: none"> • Inserting • Stitching and trimming • Palletising • Bundling • Laminating 			

Assessor comments/feedback

L/503/4042	Knowledge of the Principles of Carton Manufacturing/ Enhancement Processes	Level 2	5 Credits
PTC008			

The unit aims include knowledge and understanding of carton manufacturing and enhancement materials, processes and equipment, including fault identification. An understanding of the terminology used in this part of the print industry is also required to meet the unit aims.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Know the materials and equipment used in carton manufacturing.	1.1 Name the substrates commonly used in the manufacture of cartons.			
	1.2. Name 4 types of adhesives used in carton manufacture.			
	1.3 Explain the considerations to make when choosing an adhesive.			
	1.4 List equipment/machinery typically used in the carton manufacturing processes.			
	1.5 Explain the purpose and types of die forme used in carton manufacture.			
2. Understand the terminology used in carton manufacture.	2.1 Explain the meaning of the following: <ul style="list-style-type: none"> • Cutting matrix • Creasing matrix • Ejection materials • CAD • Skillet • Envelope base • Crashlock base • A-B-C panels 			
	2.2 Explain the differences between 'open cell' and 'closed cell' with regards to die formes.			
	2.3 Explain the differences between friction and locking closures.			
3. Understand the principles of carton design.	3.1 Explain 7 pieces of information typically required to design a carton to the required specification.			
	3.2 Explain what aspects of carton design can be aided by the use of CAD.			
	3.3 Describe the checks that should be carried out before carrying out full production.			
4. Understand the principles of carton enhancement.	4.1 Name 4 enhancements that can be carried out on cartons.			
	4.2 Describe the equipment/machinery and materials used to carry out each process.			
5. Understand how to prepare and operate carton manufacturing/enhancing machinery.	5.1 Explain how to start up, operate and shut down the machinery for: <ul style="list-style-type: none"> • Normal operation • Emergency situations 			
	5.2 Explain 3 things to check to ensure effective operation of the machinery.			
	5.3 Explain where to obtain information on the setting and operation of machinery.			
	5.4 Explain the Company procedure for the disposal of 2 types of waste.			
	5.5 Describe 2 faults that can occur with each of the following carton manufacture processes: <ul style="list-style-type: none"> • Cutting and creasing • Multifolding • Gluing 			

L/503/4042	Knowledge of the Principles of Carton Manufacturing/ Enhancement Processes (continued)	Level 2	5 Credits		
PTC008					

	5.6 Describe faults that can occur with each of 3 carton enhancement processes.			
	5.7 Explain the possible causes of each fault identified.			
	5.8 Describe 3 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made.			
	5.9 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them.			

Assessor comments/feedback

Notes

Notes

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