

Level 3 NVQ Certificates and Diplomas in Printing (5400)

September 2017 Version 2.1



Qualification at a glance

Subject area	Printing
City & Guilds number	5400
Age group approved	All
Assessment	Portfolio of evidence
Automatic Approval	Available
Support materials	Qualification handbook
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	City & Guilds number	Accreditation number
Level 3 NVQ Diploma in Digital Pre-Press for Print - Digital Artwork	5400-30	600/2128/7
Level 3 NVQ Diploma in Digital Pre-Press for Print - Digital Printing	5400-31	600/2128/7
Level 3 NVQ Diploma in Machine Printing	5400-32	600/2130/5
Level 3 NVQ Certificate in Print Finishing - General Print	5400-37	600/2129/9
Level 3 NVQ Certificate in Print Finishing - Newspapers and Periodicals	5400-38	600/2129/9

Version and date	Change detail	Section
2.1 September 2017	Added TQT details	Qualification at a glance and Structure
	Deleted QCF	Throughout
2.0 Dec 2011	Machine Printing pathways all moved under one City & Guilds complex 5400-32.	Structure



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Unit 320	Manage mail processing machinery	169
Unit 321	Manage casing-in machinery	173
Unit 322	Manage case making machinery	177
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1 Introduction

This document tells you what you need to do to deliver the qualifications:

Area	Description
Who are the qualifications for?	They are for candidates who work or want to work in the printing sector
What do the qualifications cover?	They allow candidates to learn, develop and practise the skills required for employment and/or career progression in the printing sector.
Are the qualifications part of a framework or initiative?	They serve as competence qualifications, in the printing Apprenticeship framework.
What opportunities for progression are there?	They allow candidates to progress into employment.

Structure

To achieve the **Level 3 Diploma in Digital Pre-press for Print – Digital Artwork**, learners must achieve **29** credits from the mandatory units and a minimum of **8** credits from the optional units available.

Unit accreditation number	City & Guilds unit	Unit title	Credit value
Mandatory		(must achieve all 29 credits)	
Y/502/8504	208	Send and receive digital files	1
L/601/9390	301	Promote and maintain Health and Safety in a print related working environment	4
D/601/9393	302	Contribute to improving the effectiveness of the print organisation	5
J/502/8501	303	Plan work to meet production requirements	4
T/502/8526	304	Maintain digital systems in working order	4
L/601/9406	305	Understanding the print industry	4
A/502/8558	326	Design and produce creative digital colour artwork for print	7
Optional		(minimum of 8 credits)	
D/502/8505	206	Make photopolymer plates for flexographic printing	4

Unit accreditation number	City & Guilds unit	Unit title	Credit value
K/502/8507	207	Make gravure cylinders	4
A/502/8513	209	Use of scanning techniques to create digital images	6
L/502/8502	211	Output digital image carriers for print	8
M/502/8508	212	Prepare stencils for printing	4
K/601/9400	213	Make lithographic printing plates	4
J/502/8532	308	Manage colour reproduction in digital pre-press	4
L/502/8533	309	Produce approved colour proofs from digital artwork	4
R/502/8534	310	Preflight digital files	4
M/502/8511	327	Plan and produce edited images	4

To achieve the **Level 3 Diploma in Digital Pre-press for Print – Digital Printing**, learners must achieve **32** credits from the mandatory units and a minimum of **5** credits from the optional units available.

Unit accreditation number	City & Guilds unit	Unit title	Credit value
Mandatory		(must achieve all 32 credits)	
Y/502/8504	208	Send and receive digital files	1
L/601/9390	301	Promote and maintain Health and Safety in a print related working environment	4
D/601/9393	302	Contribute to improving the effectiveness of the print organisation	5
J/502/8501	303	Plan work to meet production requirements	4
T/502/8526	304	Maintain digital systems in working order	4
L/601/9406	305	Understanding the print industry	4
J/502/8529	311	Manage colour digital printing machines	6
F/502/8531	312	Control the use of variable data with digital printing machines	4
Optional		(minimum of 5 credits)	
Y/601/9392	228	Materials handling, transportation and storage within the print working environment	4
H/601/9430	233	Set and run booklet making machinery	5
A/601/9417	234	Set and run guillotines	5

Unit accreditation number	City & Guilds unit	Unit title	Credit value
Y/601/9439	240	Set and run multi-knife trimming machinery	4
J/502/8532	308	Manage colour reproduction in digital pre-press	4
L/502/8533	309	Produce approved colour proofs from digital artwork	4
R/502/8534	310	Preflight digital files	4
A/502/8558	326	Design and produce creative digital colour artwork for print	7

To achieve the **Level 3 Diploma in Machine Printing – Sheet-Fed Lithography/Screen Printing/Over-Printing Machines/Web-Fed Lithography/Flexographic Printing/Gravure Printing**, learners must achieve **31** credits from the mandatory units and a minimum of **6** credits from the optional units available.

Unit accreditation number	City & Guilds unit	Unit title	Credit value
Mandatory		(must achieve all 31 credits)	
L/601/9390	301	Promote and maintain Health and Safety in a print related working environment	4
D/601/9393	302	Contribute to improving the effectiveness of the print organisation	5
J/502/8501	303	Plan work to meet production requirements	4
L/601/9406	305	Understanding the print industry	4
K/601/9395	306	Maintain print equipment in working order	6
D/601/9426	307	Manage printing machines	8
Optional		(minimum of 6 credits)	
D/502/8505	206	Make photopolymer plates for flexographic printing	4
L/502/8502	211	Output digital image carriers for print	8
M/502/8508	212	Prepare stencils for printing	4
K/601/9400	213	Make lithographic printing plates	4
M/601/9401	214	Prepare inks and coatings for printing	4
T/601/9402	215	Set and run numbering, bar-coding or inline data printing equipment	4
A/601/9403	216	Set and run ancillary printing machine equipment	5
F/601/9404	217	Set and run over-printing machinery	7

Unit accreditation number	City & Guilds unit	Unit title	Credit value
J/601/9405	218	Set and use ink drying equipment	3
D/601/9412	219	Prepare and maintain image carriers for printing	4
H/601/9413	220	Set and run die stamping printing machinery	6
F/601/9418	222	Set and run in-line converting or enhancing equipment	7
J/601/9419	223	Set and run in-line folding equipment	7
F/602/8626	227	Set and run in line automated stitch and trim equipment for newspaper and periodical production	4
A/601/9417	234	Set and run guillotines	5
R/601/9410	245	Set and run slitting and re-reeling equipment - adhesive label production	3

To achieve the **Level 3 Certificate in Print Finishing – General Print**, learners must achieve **23** credits from the mandatory units and a minimum of **8** credits from the optional units available.

Unit accreditation number	City & Guilds unit	Unit title	Credit value
Mandatory		(must achieve all 23 credits)	
L/601/9390	301	Promote and maintain Health and Safety in a print related working environment	4
D/601/9393	302	Contribute to improving the effectiveness of the print organisation	5
J/502/8501	303	Plan work to meet production requirements	4
L/601/9406	305	Understanding the print industry	4
K/601/9395	306	Maintain print equipment in working order	6
Optional		(minimum of 8 credits)	
J/601/9422	224	Set and run auto-packing, storage or palletising equipment	3
Y/601/9392	228	Materials handling, transportation and storage within the print working environment	4
L/502/8497	232	Set and run wire binding machinery	3
H/601/9430	233	Set and run booklet making machinery	5
Y/601/9439	240	Set and run multi-knife trimming machinery	4

Unit accreditation number	City & Guilds unit	Unit title	Credit value
L/601/9440	241	Set and run multiple hopper feeders	4
Y/601/9411	244	Set and run laminating equipment	4
R/601/9410	245	Set and run slitting and re-reeling equipment - adhesive label production	3
M/502/8556	314	Manage adhesive binding machinery	4
K/502/8586	315	Manage cutting and creasing machinery	9
T/502/8574	317	Manage foil blocking machinery	5
F/502/8593	318	Manage insetting-stitching-trimming machinery	9
M/502/8623	319	Manage guillotines	9
A/502/8589	320	Manage mail processing machinery	5
T/502/8560	321	Manage casing-in machinery	7
T/502/8557	322	Manage case making machinery	6
F/502/8562	323	Manage folding machinery	8
R/502/8565	324	Manage auto-fed sewing machinery	7
L/502/8581	325	Manage carton enhancing machinery	7

To achieve the **Level 3 Certificate in Print Finishing – Newspapers and Periodicals**, learners must achieve **23** credits from the mandatory units and a minimum of **10** credits from the optional units available.

Unit accreditation number	City & Guilds unit	Unit title	Credit value
Mandatory		(must achieve all 23 credits)	
L/601/9390	301	Promote and maintain Health and Safety in a print related working environment	4
D/601/9393	302	Contribute to improving the effectiveness of the print organisation	5
J/502/8501	303	Plan work to meet production requirements	4
L/601/9406	305	Understanding the print industry	4
K/601/9395	306	Maintain print equipment in working order	6
Optional		(minimum of 10 credits)	
F/602/8626	227	Set and run in line automated stitch and trim equipment for newspaper and periodical production	4
K/502/8619	313	Manage materials handling for newspaper and periodicals print	6

		finishing	
R/502/8632	316	Manage automated inserting equipment for newspapers and periodicals	6

Total Qualification Time

Total Qualification Time (TQT) is the total amount of time, in hours, expected to be spent by a Learner to achieve a qualification. It includes both guided learning hours (which are listed separately) and hours spent in preparation, study and assessment.

Title and level	GLH	TQT
Level 3 NVQ Diploma in Digital Pre-Press for Print - Digital Artwork	151	370
Level 3 NVQ Diploma in Digital Pre-Press for Print - Digital Printing	151	370
Level 3 NVQ Certificate in Print Finishing - General Print	122	310
Level 3 NVQ Certificate in Print Finishing - Newspapers and Periodicals	122	310



Centre requirements

Approval

If your Centre is approved to offer the qualification Level 3 NVQ in Printing (5158-31/32/33/34/35/36) you will receive automatic approval for the new Level 3 NVQ in Printing (5400-30/31/32/37/38).

To offer this [these] qualification[s], new centres will need to gain both centre and qualification approval. Please refer to the *Centre manual - Supporting Customer Excellence* for further information.

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification[s] before designing a course programme.

Resource requirements

Centre staffing

Staff delivering these qualifications must be able to demonstrate that they meet the following occupational expertise requirements. They should:

- ☐ be occupationally competent or technically knowledgeable in the area[s] for which they are delivering training and/or have experience of providing training. This knowledge must be to the same level as the training being delivered
- ☐ have recent relevant experience in the specific area they will be assessing
- ☐ have credible experience of providing training.

Centre staff may undertake more than one role, eg tutor and assessor or internal verifier, but cannot internally verify their own assessments.

Assessors and internal verifiers

Assessors

Assessors must:

- ☐ Be competent to make qualitative judgements about the units they are assessing. Illustrations of competence could include the assessor:
 - ☐ Having achieved the award themselves
 - ☐ Having substantial demonstrable experience in the job roles they are assessing
 - ☐ Being in a day-to-day line management or quality assurance role with responsibility for the job roles they are assessing
- ☐ Be in possession of or working towards the A1/A2 award or hold the D32/33 award

- ☐ Carry out their duties in accordance with the current NOS for Assessment, and in line with current guidance on assessment practice issued by the regulatory authorities and City & Guilds
- ☐ Maintain appropriate evidence of development activities to ensure their assessment skills and occupational understanding are current (CPD)
- ☐ Have a working knowledge of awards and a full understanding of that part of the award for which they have responsibility.

Internal Verifiers

Internal Verifiers must:

- ☐ Be in possession of or working towards the V1 award or hold the D34 award, as recommended by SQA/QCA and supported by an appropriate CPD record
- ☐ Carry out their duties in accordance with the current NOS for Verification, and in line with current guidance on verification practice issued by the regulatory authorities and City & Guilds
- ☐ Maintain appropriate evidence of development activities to ensure their verification skills and occupational understanding are current (CPD)
- ☐ Have expertise and knowledge of awards and a full understanding of that part of the award for which they have responsibility.

Continuing professional development (CPD)

Centres must support their staff to ensure that they have current knowledge of the occupational area, that delivery, mentoring, training, assessment and verification is in line with best practice, and that it takes account of any national or legislative developments.

Candidate entry requirements

City & Guilds does not set entry requirements for these qualifications. However, centres must ensure that candidates have the potential and opportunity to gain the qualifications successfully.

Age restrictions

City & Guilds cannot accept any registrations for candidates under 16 as these qualifications are not approved for under 16s.

Legal restrictions apply to candidates under the age of 18 working unsupervised with children. Centres and candidates should be fully aware of minimum age requirements in their home nation and any implications for completing assessments.



2 Delivering the qualification

Initial assessment and induction

An initial assessment of each candidate should be made before the start of their programme to identify:

- ☐ if the candidate has any specific training needs
- ☐ support and guidance they may need when working towards their qualifications
- ☐ any units they have already completed, or credit they have accumulated which is relevant to the qualifications
- ☐ the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the candidate fully understands the requirements of the qualifications, their responsibilities as a candidate, and the responsibilities of the centre. This information can be recorded on a learning contract.

Recording documents

Candidates and centres may decide to use a paper-based or electronic method of recording evidence.

City & Guilds endorses several ePortfolio systems, including our own, **Learning Assistant**, an easy-to-use and secure online tool to support and evidence learners' progress towards achieving qualifications. Further details are available at: www.cityandguilds.com/eportfolios.

City & Guilds has developed a set of *recording forms* including examples of completed forms, for new and existing centres to use as appropriate. *Recording forms* are available on the City & Guilds website.

Although new centres are expected to use these forms, centres may devise or customise alternative forms, which must be approved for use by the external verifier, before they are used by candidates and assessors at the centre. Amendable (MS Word) versions of the forms are available on the City & Guilds website.



3 Assessment

Candidates must:

- ☐ have a completed portfolio of evidence for each unit chosen.

Evidence

The majority of the candidate's evidence should come from direct observations of competence in the real workplace, unless specified in the award specific annex. Other types of acceptable evidence include, but are not limited to:

- ☐ Witness Testimony
- ☐ Logs/Diaries kept by Candidates
- ☐ Recorded answers to questions posed by the Assessor
- ☐ Recorded/Transcribed Interviews with the Candidate
- ☐ Recorded use of up-to-date commercial/industrial equipment
- ☐ e-portfolios and other forms of digital media
- ☐ Works documentation attributable to the candidate
- ☐ Both interim and final internal verification.

Location of Assessment

Although the majority of the candidate's evidence should come from direct observations of competence in the real work place, in exceptional circumstances simulation of the real workplace may be allowed. Occasions in which this may be approved are listed under 'Simulation'.

Simulation

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

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

Any simulation must be approved in advance by the External Verifier, and clear reasons must be given for its intended use. Simulation should not be the primary source of a candidate's claim to competence

Third Party Witnesses

Third party 'witnesses' must also be competent to make judgements about the activity(ies) for which they are providing the testimony. As the assessment decision lies with the Assessor, it is their responsibility to verify this and, where challenged, to justify their acceptance of third party 'witness testimony' to the Internal Verifier.

Recognition of prior learning (RPL)

Recognition of prior learning means using a person's previous experience or qualifications which have already been achieved to contribute to a new qualification.

RPL is allowed and is not sector specific.



4 Units

Availability of units

The following units can also be obtained from The Register of Regulated Qualifications: <http://register.ofqual.gov.uk/Unit>

Structure of units

These units each have the following:

- ☐ City & Guilds reference number
- ☐ unit accreditation number (UAN)
- ☐ title
- ☐ level
- ☐ credit value
- ☐ unit aim
- ☐ relationship to NOS, other qualifications and frameworks
- ☐ endorsement by a sector or other appropriate body
- ☐ information on assessment
- ☐ learning outcomes which are comprised of a number of assessment criteria
- ☐ notes for guidance.

Summary of units

Unit	Unit title	Credits	Unit number (UAN)
206	Make photopolymer plates for flexographic printing	4	D/502/8505
207	Make gravure cylinders	4	K/502/8507
208	Send and receive digital files	1	Y/502/8504
209	Use of scanning techniques to create digital images	6	A/502/8513
211	Output digital image carriers for print	8	L/502/8502
212	Prepare stencils for printing	4	M/502/8508
213	Make lithographic printing plates	4	K/601/9400
214	Prepare inks and coatings for printing	4	M/601/9401
215	Set and run numbering, bar-coding or inline data printing equipment	4	T/601/9402

Unit	Unit title	Credits	Unit number (UAN)
216	Set and run ancillary printing machine equipment	5	A/601/9403
217	Set and run over-printing machinery	7	F/601/9404
218	Set and use ink drying equipment	3	J/601/9405
219	Prepare and maintain image carriers for printing	4	D/601/9412
220	Set and run die stamping printing machinery	6	H/601/9413
222	Set and run in-line converting or enhancing equipment	7	F/601/9418
223	Set and run in-line folding equipment	7	J/601/9419
224	Set and run auto-packing, storage or palletising equipment	3	J/601/9422
227	Set and run in line automated stitch and trim equipment for newspaper and periodical production	4	F/602/8626
228	Materials handling, transportation and storage within the print working environment	4	Y/601/9392
232	Set and run wire binding machinery	3	L/502/8497
233	Set and run booklet making machinery	5	H/601/9430
234	Set and run guillotines	5	A/601/9417
240	Set and run multi-knife trimming machinery	4	Y/601/9439
241	Set and run multiple hopper feeders	4	L/601/9440
244	Set and run laminating equipment	4	Y/601/9411
245	Set and run slitting and re-reeling equipment - adhesive label production	3	R/601/9410
301	Promote and maintain Health and Safety in a print related working environment	4	L/601/9390
302	Contribute to improving the effectiveness of the print organisation	5	D/601/9393
303	Plan work to meet production requirements	4	J/502/8501
304	Maintain digital systems in working order	4	T/502/8526
305	Understanding the print industry	4	L/601/9406
306	Maintain print equipment in working order	6	K/601/9395

Unit	Unit title	Credits	Unit number (UAN)
307	Manage printing machines	8	D/601/9426
308	Manage colour reproduction in digital pre-press	4	J/502/8532
309	Produce approved colour proofs from digital artwork	4	L/502/8533
310	Preflight digital files	4	R/502/8534
311	Manage colour digital printing machines	6	J/502/8529
312	Control the use of variable data with digital printing machines	4	F/502/8531
313	Manage materials handling for newspaper and print periodicals finishing	6	K/502/8619
314	Manage adhesive binding machinery	4	M/502/8556
315	Manage cutting and creasing machinery	9	K/502/8586
316	Manage automated inserting equipment for newspapers and periodicals	6	R/502/8632
317	Manage foil blocking machinery	5	T/502/8574
318	Manage inseting-stitching-trimming machinery	9	F/502/8593
319	Manage guillotines	9	M/502/8623
320	Manage mail processing machinery	5	A/502/8589
321	Manage casing-in machinery	7	T/502/8560
322	Manage case making machinery	6	T/502/8557
323	Manage folding machinery	8	F/502/8562
324	Manage auto-fed sewing machinery	7	R/502/8562
325	Manage carton enhancing machinery	7	L/502/8581
326	Design and produce creative digital colour artwork for print	7	A/502/8558
327	Plan and produce edited images	4	M/502/8511

UAN:	D/502/8505
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Proskills NOS Unit 105
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to carry out the production and output of photopolymer plates for flexographic printing. It includes identifying the work to be done, exposing plates, processing plates, checking the quality of output.

Learning outcome	The learner will:
1.	be able to prepare photopolymer plates for print
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	ensure the required type, quantity and quality of materials are available
1.3	check that: <ul style="list-style-type: none"> <input type="checkbox"/> negatives match with artwork <input type="checkbox"/> elements match imposition <input type="checkbox"/> non-image density matches the manufacturer's recommendations and their company's quality standard
1.4	prepare the exposure unit in accordance with job requirements
1.5	handle and load plate material in accordance with company procedures
1.6	position plate material so that all image elements fall accurately on the finished plate
1.7	select exposure values which produce the required plate characteristics after processing
1.8	expose the assembly in accordance with job requirements
1.9	pass the plate for processing.

Learning outcome	The learner will:
2.	be able to process photopolymer plates
Assessment criteria	
The learner can:	
2.1	load the processor according to specified instructions, handling materials in accordance with company health and safety guidelines
2.2	set and operate processor in accordance with job requirements and safe operating procedures
2.3	trim the finished plate to the required size
2.4	check that the finished plate meets the company's standard for: <ul style="list-style-type: none"> <input type="checkbox"/> thickness <input type="checkbox"/> relief height <input type="checkbox"/> spots and blemishes
2.5	keep waste to a minimum and dispose of it in accordance with company procedures
2.6	report when the plate is ready for production.

Learning outcome	The learner will:
3.	know how to make photopolymer plates for flexographic printing
Assessment criteria	
The learner can:	
3.1	describe what details are needed to produce the job
3.2	describe the quality standards relating to plate production
3.3	explain the key parts of a negative film which should be checked prior to output
3.4	describe the risks which arise when handling plates and materials and operate exposure units and how to avoid them
3.5	explain the plate making methods and the function of the equipment in use in the company
3.6	explain the suitable safe lighting conditions to be used during production
3.7	describe the make ready procedures for the plate making equipment in use
3.8	state the company's waste disposal procedures
3.9	state the company procedures for reporting machine faults and breakdown
3.10	explain faults than can occur, what causes them and how to correct them
3.11	describe how to recognise when to correct faults themselves and when to ask for help.

**Unit 206 Make photopolymer plates for
flexographic printing**
Supporting information

Guidance

AC3.10 – Candidates must explain at least two examples of faults that can occur.

UAN:	K/502/8507
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Proskills NOS Unit 106
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to carry out the preparation and production of gravure cylinders for print. The learner will also be required to know how to deal with faults and problems occurring during the process.

Learning outcome	The learner will:
1.	be able to produce gravure cylinders for print
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	ensure sufficient materials are available for the required job
1.3	check that the cylinder is clean and suitable for the job requirements
1.4	ensure all checks and adjustments necessary are made so that the work can be carried out efficiently and safely
1.5	select and prepare the required masks
1.6	keep waste materials to a minimum.

Learning outcome	The learner will:
2.	know how to prepare the gravure cylinder
Assessment criteria	
The learner can:	
2.1	explain what details are required to carry out the work required
2.2	describe the types of cylinders in use in the company, and the types of job for which they are used
2.3	explain why it is important to check that the cylinder is clean and suitable for the job
2.4	explain the range, use and limitations of processing materials and equipment
2.5	describe the range, use and limitations of processing materials

and equipment waste
2.6 explain the types of mask in use in the company.

Learning outcome	The learner will:
3.	be able to transfer the image to the cylinder
Assessment criteria	
The learner can:	
3.1	check that the equipment is ready for image transfer
3.2	set and operate the equipment so that: <ul style="list-style-type: none"> <input type="checkbox"/> the complete image is transferred to the cylinder <input type="checkbox"/> the image is sharp and clean, at the required resolution <input type="checkbox"/> the finished cylinder is free from faults and suitable for production
3.3	keep waste to a minimum and dispose of it in accordance with company procedures
3.4	report when the plate is ready for production.

Learning outcome	The learner will:
4.	know how to transfer the image to the cylinder
Assessment criteria	
The learner can:	
4.1	describe the cylinder making methods and equipment in use in the company
4.2	explain the most suitable environmental conditions for production
4.3	describe the risks associated with operating the equipment
4.4	explain how to set up and operate the equipment
4.5	describe the company's waste disposal procedures
4.6	explain faults which can occur when making gravure cylinders, what causes them and how to correct them
4.7	explain to whom they must report when there are faults, and when the plate is ready for production.

Unit 207 Make gravure cylinders

Supporting information

Guidance

AC4.6 – Candidates must explain at least **three** faults.

UAN:	Y/502/8504
Level:	Level 2
Credit value:	1
GLH:	9
Relationship to NOS:	This unit is linked to Proskills NOS Unit 124
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be competent in the sending and receiving of digital files over a telecommunications network, including as email attachments, by ISDN or through a virtual private network or similar permanent connection.

Learning outcome	The learner will:
1.	be able to send digital files by electronic means
Assessment criteria	
The learner can:	
1.1	confirm that the file(s) to be sent are in the format required by the customer and are of a suitable size for transmission
1.2	make sure the transmission method is suitable for the files to be transmitted taking into account for example: <ul style="list-style-type: none"> <input type="checkbox"/> customer's preferences <input type="checkbox"/> speed of transmission <input type="checkbox"/> security <input type="checkbox"/> cost
1.3	make sure that the information accompanying the digital file(s) is: <ul style="list-style-type: none"> <input type="checkbox"/> detailed enough for the customer <input type="checkbox"/> clear and accurate
1.4	send the files to the specified people
1.5	complete all records on the transmission as required by company procedures.

Learning outcome	The learner will:
2.	be able to receive digital files by electronic means
Assessment criteria	
The learner can:	
2.1	confirm that the digital communications systems are operating and are ready to receive incoming files

2.2	check for incoming files in accordance with company guidelines
2.3	confirm that the required files have been received
2.4	save received files in accordance with company guidelines
2.5	complete all records on the files received in accordance with company guidelines.

Learning outcome	The learner will:
3.	know how to send and receive digital files
Assessment criteria	
The learner can:	
3.1	explain how to check that virus software is up-to-date and functioning correctly on the host computer, why this is important and what to do if there is a problem
3.2	explain how to seek confirmation that digital files sent have been received as required, and when this has to be done to comply with company procedures
3.3	explain the company procedure when a digital file has been: <ul style="list-style-type: none"> <input type="checkbox"/> sent to the wrong address <input type="checkbox"/> sent to the correct address but in the wrong format
3.4	describe problems that could occur when sending digital files and how to overcome the problems
3.5	explain the company procedure when a file has been received in the following situations: <ul style="list-style-type: none"> <input type="checkbox"/> from a known source but unable to open <input type="checkbox"/> from an unknown source
3.6	state how to deal with digital files in relation to the following: <ul style="list-style-type: none"> <input type="checkbox"/> file conversion techniques <input type="checkbox"/> file compression and decompression techniques <input type="checkbox"/> file management.

Unit 209

Use of scanning techniques to create digital images

UAN:	A/502/8513
Level:	Level 2
Credit value:	6
GLH:	39
Relationship to NOS:	This unit is linked to Proskills NOS Unit 125
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to convert analogue material into digital form. It covers all aspects of scanning, including detailed intervention where automatic settings do not give the required result.

Learning outcome	The learner will:
1.	be able to decide on the appropriate scanning approach
Assessment criteria	
The learner can:	
1.1	make an accurate assessment of the suitability of the material for scanning
1.2	make an accurate assessment of the scanner operations necessary to produce the required output
1.3	check that the scanners available will produce the quality of output to meet customer requirements
1.4	select the most suitable scanning equipment for the material to be scanned and the output required.

Learning outcome	The learner will:
2.	be able to prepare equipment and material for scanning
Assessment criteria	
The learner can:	
2.1	carry out any low-resolution scanning necessary to establish the required software values
2.2	apply the required software values for: <input type="checkbox"/> the material to be scanned <input type="checkbox"/> the output required
2.3	ensure that the scanner to be used, and the material to be scanned, are clean

2.4	handle the material to be scanned in accordance with Health and Safety guidelines
2.5	load the material to be scanned with regard to alignment and positioning.

Learning outcome	The learner will:
3.	be able to produce and save scanned images in line with the job specification and company standards
Assessment criteria	
The learner can:	
3.1	produce scanned images which are correct in terms of the following: <ul style="list-style-type: none"> <input type="checkbox"/> physical size <input type="checkbox"/> file size <input type="checkbox"/> content <input type="checkbox"/> orientation <input type="checkbox"/> colour <input type="checkbox"/> sharpness <input type="checkbox"/> brightness (exposure) <input type="checkbox"/> contrast <input type="checkbox"/> colour space — RGB, CMYK and greyscale <input type="checkbox"/> output resolution
3.2	produce scanned images to the required image profiles
3.3	produce scanned images which are free of the following unwanted effects: <ul style="list-style-type: none"> <input type="checkbox"/> physical defects — fingerprints, dust damage and scratches <input type="checkbox"/> newton's rings <input type="checkbox"/> moiré patterning from screened originals <input type="checkbox"/> pixelisation <input type="checkbox"/> posterisation <input type="checkbox"/> halo effects
3.4	assess the scanned images against customer requirements and workplace standards
3.5	detect any problems with the scanned images and identify the probable causes of the problems
3.6	maintain the confidentiality of customer material
3.7	save the scanned image data files in the required format.

Learning outcome	The learner will:
4.	know how to plan and capture digital images
Assessment criteria	
The learner can:	
4.1	explain the law affecting printing in relation to: <ul style="list-style-type: none"> <input type="checkbox"/> defamation <input type="checkbox"/> copyright and ownership of images <input type="checkbox"/> obscenity <input type="checkbox"/> incitement <input type="checkbox"/> forgery

- ☐ data protection
- 4.2 describe how to ensure the safe handling of customer material as required by their company
- 4.3 state the company requirements for the safe storage and archiving of digital artwork
- 4.4 describe the operation of equipment for the following:
 - ☐ the set-up of scanning equipment
 - ☐ the operation of scanning equipment
- 4.5 describe how Digital Imaging is affected by:
 - ☐ colour theory, eg: additive and subtractive systems such as RGB and CMYK; colour gamuts
 - ☐ the relationship between image size, file size and resolution
 - ☐ file formats for digital images - the differences between them and the reasons for using them
 - ☐ the range of methods, equipment, material and software appropriate to the imaging requirements
 - ☐ methods of controlling contrast, density and colour characteristics during scanning
 - ☐ the assessment of material for scanning - potential problems and solutions
 - ☐ colour management: how to set up, maintain and use image profiles
- 4.6 describe how to identify and correct faults which affect the quality of the scanned image
- 4.7 describe the principal activities involved with machine cleaning and calibration including:
 - ☐ the choice and use of suitable cleaning agents and lubricants
 - ☐ the methods used to set up and calibrate a scanner for use.

Unit 209

Use of scanning techniques to create digital images

Supporting information

Guidance

AC4.6 – Candidates must describe at least **three** faults which affect the quality of the scanned image.

UAN:	L/502/8502
Level:	Level 2
Credit value:	8
GLH:	50
Relationship to NOS:	This unit is linked to Proskills NOS Units 129 and 131
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to produce image carriers for printing utilizing digital system technology, eg computer to plate (flexo, gravure, litho), film output technology.

Learning outcome	The learner will:
1.	be able to impose images electronically
Assessment criteria	
The learner can:	
1.1	obtain all the details needed for the job
1.2	select an appropriate imposition scheme by taking into account: <ul style="list-style-type: none"> <input type="checkbox"/> the quantity required <input type="checkbox"/> the working size of the job <input type="checkbox"/> paper size <input type="checkbox"/> printing machine sizes and the number available <input type="checkbox"/> the type of printing machine to be used <input type="checkbox"/> colour fall (where appropriate) <input type="checkbox"/> the method of finishing
1.3	retrieve or create an imposition template that meets the requirements of the imposition scheme
1.4	identify and correct data, system and software problems which will affect the production of impositions.

Learning outcome	The learner will:
2.	be able to prepare images for processing
Assessment criteria	
The learner can:	
2.1	check that the job files are compatible with the imaging software to be used
2.2	set the required output parameters to meet the job specification, taking into account, for example : <ul style="list-style-type: none"> <input type="checkbox"/> resolution <input type="checkbox"/> screen ruling and dot type <input type="checkbox"/> screen angle <input type="checkbox"/> orientation <input type="checkbox"/> position on the image carrier <input type="checkbox"/> register or other marks <input type="checkbox"/> right/wrong reading <input type="checkbox"/> emulsion up/down <input type="checkbox"/> separations settings
2.3	make sure the required image carrier is loaded into the output device
2.4	check that the output device is calibrated and prepared for operation.

Learning outcome	The learner will:
3.	be able to produce and process image carrier
Assessment criteria	
The learner can:	
3.1	send the data to the output device
3.2	after imaging, process the image carrier as required
3.3	check that output meets the job requirements for quality and specification
3.4	store finished output in line with company guidelines
3.5	keep records for quality assurance and administrative purposes as required by their company
3.6	archive digital files in accordance with company procedures.

Learning outcome	The learner will:
4.	know how to produce computer-generated image carriers
Assessment criteria	
The learner can:	
4.1	explain what information is required to start the work
4.2	describe factors to consider when selecting an appropriate imposition scheme
4.3	describe problems that can occur during the process of producing computer generated image carriers and suggest possible solutions
4.4	explain the company procedures for reporting faults and delays to production

- | | |
|-----|--|
| 4.5 | describe the operation of equipment for the following: <ul style="list-style-type: none"><input type="checkbox"/> the set-up of digital imaging equipment and software<input type="checkbox"/> the operation of digital imaging equipment and software |
| 4.6 | state the characteristics of sensitive material in printing |
| 4.7 | explain how to deal with digital files in relation to the following: <ul style="list-style-type: none"><input type="checkbox"/> file conversion techniques<input type="checkbox"/> file compression and decompression systems<input type="checkbox"/> file management. |

Unit 211 Output digital image carriers for print

Supporting information

Guidance

AC4.2 – Candidates must describe at least **three** factors to consider when selecting an appropriate imposition scheme

AC4.3 – Candidates must describe at least **three** problems that can offer during the process of producing computer generated image carriers.

UAN:	M/502/8508
Level:	Level 2
Credit value:	4
GLH:	26
Relationship to NOS:	This unit is linked to Proskills NOS Unit 219
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to identify mesh and frame size, including preparing the mesh and checking the tension. Also the learner will be required to prepare the mesh material, apply and dry stencil material, position the photo-positive; also exposing, developing and drying the stencil.

Learning outcome	The learner will:
1.	be able to prepare the mesh
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and select the mesh type and frame size
1.3	check the tension of the mesh
1.4	check that the condition of new and used mesh is suitable for use
1.5	prepare the mesh so that it will accept the stencil.

Learning outcome	The learner will:
2.	know how to prepare the mesh
Assessment criteria	
The learner can:	
2.1	explain how to identify the image size
2.2	explain how to identify the machine to be used
2.3	explain how to select the frame
2.4	explain how to identify the required mesh material
2.5	describe why it is important that reclaimed mesh is free from stains and ghost images and how to confirm this
2.6	describe how to treat mesh material
2.7	explain how to check that stencil residue has been completely removed from reclaimed screens
2.8	describe the health and safety requirements when using

chemicals and what personal protective equipment to use
2.9 describe the company procedure for reporting unsuitable frames and meshes.

Learning outcome	The learner will:
3.	be able to prepare stencils for production
Assessment criteria	
The learner can:	
3.1	obtain and check the job specification
3.2	obtain the photo-positive and check that it is fit for use
3.3	apply the stencil material to the screen and dry it in accordance with manufacturer's and company guidelines
3.4	position the photo-positive accurately on the screen
3.5	confirm that the exposure is correct to suit the stencil system
3.6	develop the stencil ensuring the water temperature and pressure are set in accordance with manufacturer's and company guidelines
3.7	dry stencils, checking that drying is even over the entire surface
3.8	check the stencils are free from fault.

Learning outcome	The learner will:
4.	know how to prepare stencils
Assessment criteria	
The learner can:	
4.1	describe the methods to use in the production of the different types of stencil
4.2	explain how to choose the type of stencil to use
4.3	explain reasons for choosing a particular stencil type
4.4	describe the materials available for the production of stencils
4.5	explain what safe light conditions are used in stencil processing
4.6	explain why it is important to position the photo-positive accurately and how the machine affects positioning
4.7	describe how to achieve the optimum exposure
4.8	describe the effects of under- and over-exposure
4.9	explain how the condition of the stencil affects the printed image
4.10	describe common faults associated with preparing the stencils for print.

Unit 212 Prepare stencils for printing

Supporting information

Guidance

AC4.10 – Candidates must describe at least **two** common faults associated with preparing stencils for print.

UAN:	K/601/9400
Level:	Level 2
Credit value:	4
GLH:	26
Relationship to NOS:	This unit is linked to Proskills NOS Unit 251.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to make plates and store them for reuse.

Learning outcome	The learner will:
1.	be able to produce lithographic printing plates
Assessment criteria	
The learner can:	
1.1	identify the required plate material for platemaking to meet the job specification
1.2	identify the required files and materials for exposing the plate to meet the job specification
1.3	check that the imaging/exposure and any on line processing equipment is ready for operation
1.4	load the plate into the imaging/exposure equipment in accordance with manufacturer's instructions
1.5	begin the imaging/exposure of the plate, in accordance with company guidelines
1.6	on completion of imaging/exposure, develop the plate to meet the job specification
1.7	check the plate for correct exposure, completeness of image and that it is free from damage.

Learning outcome	The learner will:
2.	know how to maintain lithographic printing plates
Assessment criteria	
The learner can:	
2.1	explain how and when to clean and protect plates for re-use
2.2	explain the conditions and procedure for storage of plates.

Learning outcome	The learner will:
3.	know how to produce lithographic printing plates
Assessment criteria	
The learner can:	
3.1	explain the types of lithographic printing plates and their uses
3.2	explain the process for producing a lithographic printing plate
3.3	explain checks to make before beginning the production process
3.4	describe common faults in plate making and plate processing, their causes and how to correct them
3.5	explain how and why, to report a fault that is not able to be corrected either due to lack of knowledge or lack of authority.

Unit 213 Make lithographic printing plates

Supporting information

Guidance

AC3.3 – Candidates must explain at least **three** checks to make before beginning the production process.

AC3.4 – Candidates must describe at least **three** common faults.

Unit 214

Prepare inks and coatings for printing

UAN:	M/601/9401
Level:	Level 2
Credit value:	4
GLH:	29
Relationship to NOS:	This unit is linked to Proskills NOS Unit 252
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to prepare printing inks and coatings for printing, either to achieve a specified colour or to alter the characteristics of the inks or coatings to suit the process conditions or substrate being printed.

Learning outcome	The learner will:
1.	be able to mix and match ink to meet the production specification
Assessment criteria	
The learner can:	
1.1	identify the mix and the inks required from the job instructions
1.2	obtain the required quantity and types of inks to make up the batch to meet the job specification
1.3	use company procedures for estimating and measuring the quantities required to produce the required mix in the required batch size(s)
1.4	produce the mix, following company procedures
1.5	match a sample against the specification, using approved test methods
1.6	record product details in line with company requirements.

Learning outcome	The learner will:
2.	know how to adjust viscosity and tack to suit materials or print conditions
Assessment criteria	
The learner can:	
2.1	explain the adjustments that can be made to viscosity or tack
2.2	list suitable medium with which to adjust the viscosity and tack
2.3	explain how to identify the required viscosity or tack has been achieved.

Learning outcome	The learner will:
3.	be able to store inks and coatings in accordance with company procedures
Assessment criteria	
The learner can:	
3.1	store inks and coatings in containers and conditions in accordance with company guidelines
3.2	ensure containers are marked in accordance with company procedures
3.3	record the stock control details required by the company.

Learning outcome	The learner will:
4.	know how to prepare inks and coatings for printing
Assessment criteria	
The learner can:	
4.1	explain where and how to obtain information on the job requirements
4.2	explain the operation of two of the following pieces of equipment: <ul style="list-style-type: none"> <input type="checkbox"/> ink weighing and checking equipment <input type="checkbox"/> viewing equipment <input type="checkbox"/> spectrophotometers
4.3	explain common problems with inks and coatings, and their likely causes
4.4	explain the administrative procedure for recording and reporting faults/problems
4.5	explain quality assurance and control in relation to: <ul style="list-style-type: none"> <input type="checkbox"/> techniques for controlling quality – testing, sampling <input type="checkbox"/> equipment for controlling quality – light standards for colour viewing, spectrophotometers, colour reference books
4.6	describe the types and characteristics of inks and coatings.

Unit 214 Prepare inks and coatings for printing

Supporting information

Guidance

AC4.3 – Candidates must explain at least **three** common problems with inks and coatings and their likely causes.

Unit 215

Set and run numbering, bar-coding or inline data printing equipment

UAN:	T/601/9402
Level:	Level 2
Credit value:	4
GLH:	30
Relationship to NOS:	This unit is linked to Proskills NOS Unit 253
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set and monitor numbering, bar-coding or inline data printing equipment. The numbering equipment may be conventional numbering 'clocks' or 'blocks' or ink-jet, thermal or laser technology.

Learning outcome	The learner will:
1. be able to set up numbering, bar-coding or non-impact printing equipment	
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	determine the sequence, orientation and position of the numbering or data on the sheet
1.3	for multiple sequential numbering, calculate the starting number for each number position
1.4	set the numbering device or print head to produce a clean image without causing physical damage to the substrate to be printed
1.5	check that any sequential numbering will operate and count in the right direction
1.6	check that any batch coding data is set-up accurately and any barcode images can be read by a barcode scanning device
1.7	ensure the working environment is safe for production
1.8	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to operate and monitor the quality of numbering, bar-coding or non-impact printing during production
Assessment criteria	
The learner can:	
2.1	monitor that any numbering or variable data is maintained in sequence
2.2	check that the numbering, bar-coding or other data can be read, eg by using a 'reading' device such as a barcode scanner
2.3	run the printing machinery at the optimum speed.
2.4	keep up the supply of materials and consumables throughout the run
2.5	check that quality standards and job specifications are met.

Learning outcome	The learner will:
3.	know how to set and monitor numbering, bar-coding or inline data printing equipment
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down the machinery for: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.2	explain the type of information required to ensure the equipment can be set correctly and where and when to obtain it
3.3	describe the identification and assessment of printing options and the stages in the printing process from pre-press to printed product
3.4	describe the operation of equipment for the following: <ul style="list-style-type: none"> <input type="checkbox"/> the operation of numbering, bar-coding or non-impact inline printing equipment <input type="checkbox"/> the principles of barcode construction, including the use of 'check' digits
3.5	explain the principles of impact and non-impact numbering and inline data printing
3.6	describe problems that can occur during the set up or operation processes and possible solutions.

Unit 215 **Set and run numbering, bar-coding or inline data printing equipment**

Supporting information

Guidance

AC3.6 – Candidates must describe at least **three** problems that can occur.

Unit 216

Set and run ancillary printing machine equipment

UAN:	A/601/9403
Level:	Level 2
Credit value:	5
GLH:	35
Relationship to NOS:	This unit is linked to Proskills NOS Unit 254
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to prepare and monitor the performance of printing machine equipment. Ancillary printing machine equipment is any piece of equipment which is associated with (and usually connected to) a printing machine but does not form part of the main printing machine itself.

Learning outcome	The learner will:
1.	be able to set ancillary printing machine equipment for use
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required to meet the job specification
1.3	ensure the working environment is safe for production
1.4	set the ancillary equipment to meet the job specification.

Learning outcome	The learner will:
2.	be able to operate the ancillary equipment
Assessment criteria	
The learner can:	
2.1	operate the machinery at the required production speed and in accordance with company guidelines
2.2	keep up the supply of materials throughout the run
2.3	monitor the output to ensure the job specification and company quality standards are met.

Learning outcome	The learner will:
3.	know how to set and run ancillary printing machine equipment
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down the machinery for: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.2	describe how to check that print equipment is ready for effective operation
3.3	explain where to obtain information on the setting and operation of machinery
3.4	describe 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
3.5	describe problems that can occur when operating machinery that may not be resolved by adjustment and the company procedure for dealing with them.

Unit 216 Set and run ancillary printing machine equipment

Supporting information

Guidance

AC3.2 – Candidates must give at least **three** examples of how to check print equipment is ready for effective operation.

AC3.4 – Candidates must describe at least **three** situations.

AC3.5 – Candidates must describe at least **two** problems.

Unit 217

Set and run over-printing machinery

UAN:	F/601/9404
Level:	Level 2
Credit value:	7
GLH:	45
Relationship to NOS:	This unit is linked to Proskills NOS Unit 255
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and operate printing machinery designed to print onto a pre-made product. It also includes problem solving.

Learning outcome	The learner will:
1.	be able to set up an over-printing machine for production
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set the inserting equipment to meet the job specification
1.5	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to run over-printing machinery effectively
Assessment criteria	
The learner can:	
2.1	run the printing machinery at the optimum speed
2.2	keep up the supply of materials and consumables throughout the run
2.3	check that quality standards and job specifications are met
2.4	record production and quality assurance details in line with company requirements
2.5	follow the company procedure for the removal of waste.

Learning outcome	The learner will:
3.	know how to set and operate over-printing machinery
Assessment criteria	
The learner can:	
3.1	explain how to obtain details of the work required
3.2	explain how to start up and shut down over printing machinery in: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.3	explain the company procedure for obtaining authorisation to begin production and why this is important
3.4	explain the identification and assessment of printing options, including the stages in the printing process from pre-press to printed product
3.5	describe the operation of over-printing machinery
3.6	explain the principles of the over-printing process that is used
3.7	explain how to identify faults which: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> produce a shortfall in output <input type="checkbox"/> create risks to health and safety.

UAN:	J/601/9405
Level:	Level 2
Credit value:	3
GLH:	23
Relationship to NOS:	This unit is linked to Proskills NOS Unit 256
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to use ink drying or ink curing equipment associated with printing machinery. Common ink drying/curing equipment includes: Ultra Violet (UV), Infra Red (IR) and hot air.

Learning outcome	The learner will:
1.	be able to set up ink drying equipment
Assessment criteria	
The learner can:	
1.1	check that the drying equipment is ready for production
1.2	ensure the drying equipment is set to operate at the temperature or intensity required.

Learning outcome	The learner will:
2.	be able to maintain the quality of output from ink drying equipment
Assessment criteria	
The learner can:	
2.1	monitor that the output meets the required quality in accordance with job specification, for example: <ul style="list-style-type: none"> <input type="checkbox"/> ink setting and hardening rates meet production requirements <input type="checkbox"/> the correct temperature is maintained throughout the run <input type="checkbox"/> the quality of the image is maintained during drying activities
2.2	stack work in accordance with company guidelines.

Learning outcome	The learner will:
3.	know how to use ink drying equipment
Assessment criteria	
The learner can:	
3.1	explain how to obtain the information required to operate the ink drying equipment effectively
3.2	describe how to start up and stop ink drying equipment for: <ul style="list-style-type: none"> <input type="checkbox"/> normal use <input type="checkbox"/> emergency situations
3.3	explain the company procedure for the removal of waste from ink drying equipment
3.4	describe faults that can occur when operating ink drying equipment, what causes them and how to correct them
3.5	explain why it is important to check that there is no build up of material or combustible matter in or around the dryer
3.6	explain where and how to obtain the maintenance plan and operating procedures for the ink drying equipment
3.7	describe the company's procedure for reporting faults.

Unit 218 Set and use ink drying equipment

Supporting information

Guidance

AC3.4 – Candidates must describe at least **three** faults that can occur, their causes and how to correct them.

Unit 219

Prepare and maintain image carriers for printing

UAN:	D/601/9412
Level:	Level 2
Credit value:	4
GLH:	25
Relationship to NOS:	This unit is linked to Proskills NOS Unit 257
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to prepare and maintain image carriers and related consumables (such as blocks, pads, plates, or engraved cylinders).

Learning outcome	The learner will:
1.	be able to prepare image carriers for printing
Assessment criteria	
The learner can:	
1.1	identify and select the required image carrier(s) and any associated materials to meet the job specification
1.2	prepare the image carrier for use by fitting into/onto any externally-prepared carrier devices in accordance with company guidelines
1.3	ensure the image carrier is located and fitted in accordance with manufacture and company guidelines prior to production.

Learning outcome	The learner will:
2.	know how to store image carriers
Assessment criteria	
The learner can:	
2.1	explain how and when to clean and protect an image carrier
2.2	explain how to report any image carrier wear or damage in line with company procedures
2.3	explain the company procedure for labelling and storing image carriers.

Learning outcome	The learner will:
3.	know how to prepare and maintain image carriers for printing
Assessment criteria	
The learner can:	
3.1	describe the operation of image carrier mounting equipment
3.2	describe the difference between direct and indirect image transfer, giving an example of each
3.3	describe faults than can occur with image carriers, what causes them and how to correct them
3.4	describe the company's quality control checks on image carriers
3.5	describe the company's procedure for reporting faults
3.6	explain the types of image carriers used in the company.

Unit 219

Prepare and maintain image carriers for printing

Supporting information

Guidance

AC3.3 – Candidates must describe at least **two** faults that can occur, their causes and how to correct them.

UAN:	H/601/9413
Level:	Level 2
Credit value:	6
GLH:	41
Relationship to NOS:	This unit is linked to Proskills NOS Unit 260
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to undertake all the steps required to make a die stamping machine ready for production, to run the machine to produce commercially acceptable work, and to assist in identifying and correcting faults with the equipment.

Learning outcome	The learner will:
1.	be able to prepare die stamping machinery for production
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	set the paper transport to run, so that: <ul style="list-style-type: none"> <input type="checkbox"/> the job stock is fed and forwarded without misses or doubles <input type="checkbox"/> the transport operates safely at the required running speed <input type="checkbox"/> sheets are delivered squarely and form an even pile <input type="checkbox"/> production times can be met
1.3	fit and position the die, so that: <ul style="list-style-type: none"> <input type="checkbox"/> the die is secured <input type="checkbox"/> the die is square
1.4	set the pressure to ensure the product will meet the job specification
1.5	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to run die stamping machinery
Assessment criteria	
The learner can:	
2.1	run the die stamping machine at the required speed
2.2	follow the company procedures for the removal of waste
2.3	stack work in accordance with company guidelines.

Learning outcome	The learner will:
3.	know how to set and operate die stamping printing machinery
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down die stamping print machinery in: <ul style="list-style-type: none"> <input type="checkbox"/> normal operations <input type="checkbox"/> emergency situations
3.2	explain the information required to set the machinery to run effectively and where to obtain it
3.3	explain how to obtain and confirm authorisation to run the job and why this is important
3.4	explain how to identify faults which: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> produce a shortfall in output
3.5	describe 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
3.6	describe problems that can occur when operating machinery that may not be resolved by adjustment and the company procedure for dealing with them.

Unit 220 Set and run die stamping printing machinery

Supporting information

Guidance

AC3.5 – Candidates must describe at least **three** situations.

AC3.6 – Candidates must describe at least **two** problems.

UAN:	F/601/9418
Level:	Level 2
Credit value:	7
GLH:	44
Relationship to NOS:	This unit is linked to Proskills NOS Unit 262
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set and run in-line converting and/or enhancing equipment on a printing machine. In-line converting or enhancing equipment is equipment which is used to apply a coating or other image-enhancing material to the substrate or any form of finishing or converting technique which is run in-line immediately before or after the printing units. It includes techniques such as cutting and creasing, rotary die-cutting, laminating, embossing, foiling and coating.

Learning outcome	The learner will:
1.	be able to set in-line converting or enhancing equipment
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set the in line converting equipment to meet the job specification taking into consideration, for example: <ul style="list-style-type: none"> <input type="checkbox"/> the size, type and caliper of the substrate <input type="checkbox"/> grain direction <input type="checkbox"/> press running speed <input type="checkbox"/> that dies, formes, cylinders, blankets, etc are mounted onto or into the unit to allow effective production <input type="checkbox"/> any enhancing materials (eg foils, coatings, laminates) <input type="checkbox"/> controlled removal of waste <input type="checkbox"/> production times
1.5	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to run in-line converting or enhancing equipment
Assessment criteria	
The learner can:	
2.1	operate the machinery at the required production speed, and in accordance with company guidelines
2.2	keep up the supply of materials throughout the run
2.3	monitor the output to ensure the job specification and company quality standards are met
2.4	record production information in accordance with company requirements
2.5	follow the company procedures for the removal of waste
2.6	stack or pack finished work in accordance with company approved method.

Learning outcome	The learner will:
3.	know how to set and run in-line converting or enhancing equipment
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down the machinery for: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.2	describe how to check that the equipment is ready for effective operation
3.3	explain where to obtain information on the setting and operation of machinery
3.4	explain the company procedure for obtaining authorisation to begin production and why it is important to follow the procedure
3.5	explain when, how and what to monitor to ensure the quality of the output
3.6	explain the company procedure for the disposal of waste
3.7	explain the types of faults that can affect the quality of output, and their possible causes
3.8	describe 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
3.9	describe problems that can occur when operating machinery that may not be resolved by adjustment and the company procedure for dealing with them.

Unit 222 Set and run in-line converting or enhancing equipment

Supporting information

Guidance

AC3.2 – Candidates must describe at least **three** examples of checks that can be done on equipment to confirm it's ready for operation/

AC3.5 – Candidates must explain at least **two** examples of things to monitor to ensure quality of output.

AC3.6 – Candidates must explain company disposal procedures for at least **two** types of waste.

AC3.7 – Candidates must explain at least **two** types of faults and their possible causes.

AC3.8 – Candidates must describe at least **three** situations.

AC3.9 – Candidates must describe at least **two** problems.

Unit 223

Set and run in-line folding equipment

UAN:	J/601/9419
Level:	Level 2
Credit value:	7
GLH:	42
Relationship to NOS:	This unit is linked to Proskills NOS Unit 263
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set in-line folding equipment on a printing machine. It also requires knowledge of adjustments and problem solving.

Learning outcome	The learner will:
1.	be able to set and operate in-line folding equipment
Assessment criteria	
The learner can:	
1.1	obtain all necessary details for the job
1.2	ensure the working environment is safe for production
1.3	set the folding equipment ensuring that any register requirements are met
1.4	set up any gluing, stitching, sheeting or rotary cutting equipment required to produce the product to specification
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	check output meets the company's quality standard.

Learning outcome	The learner will:
2.	know how to set and operate in-line folding equipment
Assessment criteria	
The learner can:	
2.1	explain how to start up and shut down the equipment in: <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
2.2	explain what information is required to set up and run the job and where to obtain it
2.3	explain how to identify the cause of problems which: <input type="checkbox"/> would reduce the rate of output <input type="checkbox"/> cause damage or distortion to the end product

- ☐ affect the efficient operation of equipment
- 2.4 describe 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
- 2.5 describe problems that can occur when operating machinery that may not be resolved by adjustment and the company procedure for dealing with them.

Unit 223 Set and run in-line folding equipment

Supporting information

Guidance

AC2.4 – Candidates must describe at least **three** situations.

AC2.5 – Candidates must describe at least **two** problems.

UAN:	J/601/9422
Level:	Level 2
Credit value:	3
GLH:	22
Relationship to NOS:	This unit is linked to Proskills NOS Units 265 and 314
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set and run automatic packing, storage or palletising equipment at the end of a printing machine. It is also suitable for those who work on newspapers and periodicals.

Learning outcome	The learner will:
1.	be able to set auto-packing, storage or palletising equipment
Assessment criteria	
The learner can:	
1.1	obtain all details and materials required for the job
1.2	set up the equipment, taking in to consideration, for example: <ul style="list-style-type: none"> <input type="checkbox"/> quantities (as required in job specification) for batches, bundles or cartons are input <input type="checkbox"/> product is wrapped without damage, distortion or waste <input type="checkbox"/> bundles are square, leave the stacker centrally at the selected running speed and in the required orientation <input type="checkbox"/> under wrap (where used) is applied <input type="checkbox"/> strapping feeds freely without snagging <input type="checkbox"/> the required number of straps are applied.

Learning outcome	The learner will:
2.	be able to run auto-packing, storage or palletising equipment
Assessment criteria	
The learner can:	
2.1	operate the equipment at the production speed and in accordance with company guidelines
2.2	maintain the supply of packing materials throughout the run
2.3	monitor that packed/stored/palletised product meets the

	company's quality standards
2.4	forward packaged products to the designated dispatch location with identification records in accordance with company guidelines.

Learning outcome	The learner will:
3.	know how to set and run auto-packing, storage or palletising equipment
Assessment criteria	
The learner can:	
3.1	describe the equipment used in the company for auto-packing, storage or palletising equipment
3.2	explain how to label the product once packaged in accordance with company procedures
3.3	describe problems that could occur when operating auto-packing, storage or palletising equipment and possible solutions
3.4	describe the company's procedure for recording and reporting problems affecting auto-packing, storage or palletising equipment.

Unit 224 **Set and run auto-packing, storage
or palletising equipment**
Supporting information

Guidance

AC3.3 – Candidates must describe at least **two** problems that could occur and possible solutions for them.

Unit 227

Set and run in line automated stitch and trim equipment for newspaper and periodical production

UAN:	F/602/8626
Level:	Level 2
Credit value:	4
GLH:	28
Relationship to NOS:	This unit is linked to Proskills NOS Unit 250.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set and run in-line stitching-trimming machinery for Newspaper and Periodicals production. They will be expected to control the equipment whilst running production jobs to produce commercially acceptable work, and to understand how to identify and correct faults with the equipment.

Learning outcome	The learner will:
1.	be able to set stitching-trimming machinery
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	ensure the required type, quantity and quality of materials are available and loaded to meet the job specification
1.3	ensure the working environment is safe for production
1.4	set up the line so that the output meets the job specification, to include: <input type="checkbox"/> positioning and condition of stitch
1.5	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to run stitching-trimming machinery
Assessment criteria	
The learner can:	
2.1	run stitching-trimming machinery at the required speed, and in accordance with company guidelines
2.2	keep up the supply of materials throughout the run
2.3	monitor the output to ensure the job specification and company quality standards are met
2.4	record production information in accordance with company requirements
2.5	follow the company procedures for the removal of waste
2.6	ensure the product is forwarded to the next stage in the production process.

Learning outcome	The learner will:
3.	know how to set and run stitching-trimming machines
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down the machinery for: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.2	explain check to make to ensure effective operation of the machinery
3.3	explain where to obtain information on the setting and operation of machinery
3.4	explain the company procedure for obtaining authorisation to begin production and why it is important to follow the procedure
3.5	explain when, how and what to monitor to ensure the quality of the output
3.6	explain the company procedure for the disposal of waste
3.7	define the possible causes of faults which can result in, for example: <ul style="list-style-type: none"> <input type="checkbox"/> stitch legs of unequal length <input type="checkbox"/> stitch legs not closed <input type="checkbox"/> stitches missing
3.8	describe 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
3.9	describe problems that can occur when operating machinery that may not be resolved by adjustment and the company procedure for dealing with them.

Unit 227

Set and run in line automated stitch and trim equipment for newspaper and periodical production

Supporting information

Guidance

AC3.2 – Candidates must explain at least **three** checks to make to ensure effective operation of machinery.

AC3.5 – Candidates must give at least **three** examples of things to monitor

AC3.6 – Candidates must explain company disposal procedures for at least **two** types of waste.

AC3.8 – Candidates must describe at least **three** situations.

AC3.9 – Candidates must describe at least **two** problems.

Unit 228

Materials handling, transportation and storage within the print working environment

UAN:	Y/601/9392
Level:	Level 2
Credit value:	4
GLH:	25
Relationship to NOS:	This unit is linked to Proskills NOS Unit 312
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to identify, transport and store materials within the print working environment.

Learning outcome	The learner will:
1.	be able to identify and select the required type and quantity of materials
Assessment criteria	
The learner can:	
1.1	identify materials by their labels/identification marks
1.2	locate materials
1.3	check that materials match their markings
1.4	select the required type and quantity of materials.

Learning outcome	The learner will:
2.	be able to handle and transport materials in accordance with company guidelines
Assessment criteria	
The learner can:	
2.1	handle the materials safely, and in accordance with company guidelines, taking into account, for example: <ul style="list-style-type: none"><input type="checkbox"/> handling equipment<input type="checkbox"/> manual handling techniques<input type="checkbox"/> personal protective equipment
2.2	transport the materials safely using the appropriate transportation methods and equipment as specified in company guidelines. To include: <ul style="list-style-type: none"><input type="checkbox"/> manual handling<input type="checkbox"/> handling/lifting equipment.

Learning outcome	The learner will:
3.	know the impact of incorrect handling and transporting of materials
Assessment criteria	
The learner can:	
3.1	describe how materials can be damaged during the handling and transportation of materials.
3.2	explain the types of personal injury that can occur through incorrect handling and transportation of materials.

Learning outcome	The learner will:
4.	know how to position /store materials in accordance with organisational procedures.
Assessment criteria	
The learner can:	
4.1	explain factors to consider when positioning or storing materials
4.2	explain the difficulties/hazards which can be encountered when positioning or storing materials
4.3	give solutions to the difficulties/hazards which can be encountered in positioning or storing materials.

Learning outcome	The learner will:
5.	be able to position or store materials in accordance with organisational procedures
Assessment criteria	
The learner can:	
5.1	position or store materials, taking into account: <ul style="list-style-type: none"> <input type="checkbox"/> avoiding damage to the materials or surrounding objects <input type="checkbox"/> security of materials <input type="checkbox"/> ease of access for further work.

Unit 228

Materials handling, transportation and storage within the print working environment

Supporting information

Guidance

AC4.1 – Candidates must explain at least **three** factors to consider when positioning or storing materials.

AC4.2 – Candidates must explain at least **three** examples of difficulties/hazards which can be encountered when positioning or storing materials.

AC4.3 – Candidates must give solutions to all difficulties/hazards identified in AC4.2.

Unit 232

Set and run wire binding machinery

UAN:	L/502/8497
Level:	Level 2
Credit value:	3
GLH:	22
Relationship to NOS:	This unit is linked to Proskills NOS Unit 355.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to use wire binding machinery. The unit also contains problem solving.

Learning outcome	The learner will:
1.	be able to set wire binding machinery
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up wire binding machinery, so that: <ul style="list-style-type: none"><input type="checkbox"/> sheets are square<input type="checkbox"/> wire is fed without any damage to the wire or product<input type="checkbox"/> production times can be met
1.5	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to run wire binding machinery
Assessment criteria	
The learner can:	
2.1	operate the machinery at the required production speed, and in accordance with company guidelines
2.2	keep up the supply of materials throughout the run
2.3	monitor the output to ensure the job specification and company quality standards are met
2.4	record production information in accordance with company requirements
2.5	follow the company procedures for the removal of waste

2.6	stack or pack finished work in accordance with company approved method.
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Learning outcome	The learner will:
3.	know how to set and run wire binding machinery
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down the machinery for: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.2	explain checks to make to ensure effective operation of the machinery
3.3	explain where to obtain information on the setting and operation of machinery
3.4	explain the company procedure for obtaining authorisation to begin production and why it is important to follow the procedure
3.5	explain when, how and what to monitor to ensure the quality of the output
3.6	explain the company procedure for the disposal of waste
3.7	define the possible causes of faults which can result in <ul style="list-style-type: none"> <input type="checkbox"/> sheets out of square <input type="checkbox"/> damaged wire or product
3.8	describe 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
3.9	describe problems that can occur when operating machinery that may not be resolved by adjustment and the company procedure for dealing with them.

Unit 232 Set and run wire binding machinery

Supporting information

Guidance

AC3.2 – Candidates must explain at least **three** checks to make to ensure effective operation of machinery.

AC3.5 – Candidates must give at least **three** examples of things to monitor

AC3.6 – Candidates must explain company disposal procedures for at least **two** types of waste.

AC3.8 – Candidates must describe at least **three** situations.

AC3.9 – Candidates must describe at least **two** problems.

UAN:	H/601/9430
Level:	Level 2
Credit value:	5
GLH:	31
Relationship to NOS:	This unit is linked to Proskills NOS Unit 356.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and operate booklet making machinery. It includes knowledge of problems that can occur with this type of equipment.

Learning outcome	The learner will:
1.	be able to set booklet-making machinery
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set the collator to meet the job specification taking into consideration, for example: <ul style="list-style-type: none"> <input type="checkbox"/> the size of the flat sheet <input type="checkbox"/> the flat sheets are in the required sequence <input type="checkbox"/> each pile showing its different, accurately-positioned printed image <input type="checkbox"/> mis-feed and double detector(s) are set <input type="checkbox"/> production times
1.5	set the stitch-fold unit so that: <ul style="list-style-type: none"> <input type="checkbox"/> the staples are positioned as required by job specification <input type="checkbox"/> the fold is made in the required position <input type="checkbox"/> the settings are appropriate for the booklet thickness and size
1.6	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to run booklet making machinery
Assessment criteria	
The learner can:	
2.1	operate the machinery at the required production speed and in accordance with company guidelines
2.2	keep up the supply of materials throughout the run
2.3	monitor the output to ensure the job specification and company quality standards are met
2.4	record production information in accordance with company requirements
2.5	follow the company procedures for the removal of waste
2.6	stack or pack finished work in accordance with company approved method.

Learning outcome	The learner will:
3.	know how to set and run booklet making machinery
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down the machinery for: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.2	explain checks to make to ensure effective operation of the machinery
3.3	explain where to obtain information on the setting and operation of machinery
3.4	explain the company procedure for obtaining authorisation to begin production and why it is important to follow the procedure
3.5	explain when, how and what to monitor to ensure the quality of the output
3.6	explain the company procedure for the disposal of waste
3.7	define the possible causes of faults which can result in, for example: <ul style="list-style-type: none"> <input type="checkbox"/> pages missing or duplicated <input type="checkbox"/> wire stitches or staples missing, broken or misformed <input type="checkbox"/> wire stitches/staples and fold not aligned <input type="checkbox"/> trimming faults such as out of square or wrong size <input type="checkbox"/> marking of inside or outside pages
3.8	describe 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
3.9	describe problems that can occur when operating machinery that may not be resolved by adjustment and the company procedure for dealing with them.

Unit 233 Set and run booklet making machinery

Supporting information

Guidance

AC3.2 – Candidates must explain at least **three** checks to make to ensure effective operation of machinery.

AC3.5 – Candidates must give at least **three** examples of things to monitor

AC3.6 – Candidates must explain company disposal procedures for at least **two** types of waste.

AC3.8 – Candidates must describe at least **three** situations.

AC3.9 – Candidates must describe at least **two** problems.

UAN:	A/601/9417
Level:	Level 2
Credit value:	5
GLH:	33
Relationship to NOS:	This unit is linked to Proskills NOS Units 357 and 309.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set and run guillotines, including knowledge of faults and problems that can occur with guillotines.

Learning outcome	The learner will:
1.	be able to set/programme and run guillotines
Assessment criteria	
The learner can:	
1.1	obtain all details of the work required
1.2	identify and obtain the materials needed to meet the job specification
1.3	check that the guillotine and work area is safe and ready for production
1.4	follow manufacturers instruction to start up the guillotine
1.5	set up the guillotine taking into consideration: <ul style="list-style-type: none"> <input type="checkbox"/> the use of an existing programme or the need to create a programmed cutting sequence <input type="checkbox"/> the required cut size(s) is(are) produced with minimum handling <input type="checkbox"/> setting the back fence manually for each cut <input type="checkbox"/> production time
1.6	run the guillotine, making sure that, for example: <ul style="list-style-type: none"> <input type="checkbox"/> cuts are clean, square and accurately positioned <input type="checkbox"/> clamp pressure does not cause marking or set-off
1.7	monitor the output to ensure the job specification and company quality standards are met
1.8	record production information in accordance with company requirements
1.9	follow the company procedures for the removal of waste.

Learning outcome	The learner will:
2.	know how to run guillotines
Assessment criteria	
The learner can:	
2.1	explain the information required to carry out the work and where to obtain it
2.2	describe the principles of guillotining
2.3	explain the risks associated with operating a guillotine, and how to avoid them
2.4	explain how to start up and stop the guillotine in: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
2.5	explain the company's method for stacking of finished work from the machine.

Learning outcome	The learner will:
3.	be able to monitor quality of guillotine cutting
Assessment criteria	
The learner can:	
3.1	check that the company's quality standards are being met
3.2	record the quality assurance details following company procedures.

Learning outcome	The learner will:
4.	know how to monitor quality of guillotine cutting
Assessment criteria	
The learner can:	
4.1	describe the company's quality standards for guillotine work
4.2	describe faults with a product that can occur in guillotine work, how to identify and rectify them
4.3	explain how to check that the machine is safe to operate, once quality defects have been corrected
4.4	explain the company procedure for recording and reporting problems or faults.

Unit 234 Set and run guillotines

Supporting information

Guidance

AC4.2 - Candidates must describe at least **three** faults.

UAN:	Y/601/9439
Level:	Level 2
Credit value:	4
GLH:	25
Relationship to NOS:	This unit is linked to Proskills NOS Unit 364
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and run multi-knife trimming machinery It includes the need to understand how to make adjustments and solve problems with this type of equipment.

Learning outcome	The learner will:
1.	be able to set multi-knife trimming machinery
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up the multi-knife trimmer, so that: <ul style="list-style-type: none"> <input type="checkbox"/> piles are fed squarely into the trimmer <input type="checkbox"/> the clamp holds the pile firmly without marking <input type="checkbox"/> piles are trimmed squarely and delivered without damage or distortion <input type="checkbox"/> the trimmed size is within variations permitted by their company <input type="checkbox"/> production times can be met
1.5	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to run multi-knife trimming machinery
Assessment criteria	
The learner can:	
2.1	operate the machinery at the required production speed, and in accordance with company guidelines
2.2	keep up the supply of materials throughout the run

2.3	monitor the output to ensure the job specification and company quality standards are met
2.4	record production information in accordance with company requirements
2.5	follow the company procedures for the removal of waste
2.6	stack or pack finished work according to the company's approved method.

Learning outcome	The learner will:
3.	know how to set and run multi-knife trimming machinery
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down the machinery for: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.2	explain checks to make to ensure effective operation of the machinery
3.3	explain where to obtain information on the setting and operation of machinery
3.4	explain the company procedure for obtaining authorisation to begin production and why it is important to follow the procedure
3.5	explain when, how and what to monitor to ensure the quality of the output
3.6	explain the company procedure for the disposal of waste
3.7	define the possible causes of faults which can result in, for example: <ul style="list-style-type: none"> <input type="checkbox"/> unacceptable cut size variation <input type="checkbox"/> score marks on cut surfaces <input type="checkbox"/> glue marks on cut surfaces <input type="checkbox"/> ragged cut on bottom pages <input type="checkbox"/> book spines splitting at head or tail <input type="checkbox"/> books not square <input type="checkbox"/> creasing on spines
3.8	describe 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
3.9	describe problems that can occur when operating machinery that may not be resolved by adjustment and the company procedure for dealing with them.

Unit 240 Set and run multi-knife trimming machinery

Supporting information

Guidance

AC3.2 – Candidates must explain at least **three** checks to make to ensure effective operation of machinery.

AC3.5 – Candidates must give at least **three** examples of things to monitor

AC3.6 – Candidates must explain company disposal procedures for at least **two** types of waste.

AC3.8 – Candidates must describe at least **three** situations.

AC3.9 – Candidates must describe at least **two** problems.

Unit 241

Set and run multiple hopper feeders

UAN:	L/601/9440
Level:	Level 2
Credit value:	4
GLH:	25
Relationship to NOS:	This unit is linked to Proskills NOS Unit 365
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and run multiple hopper feeder machinery. They will be expected to know how to make adjustments and solve problems with this type of equipment.

Learning outcome	The learner will:
1.	be able to set multiple hopper feeders
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up the hopper feeders so that: <ul style="list-style-type: none"><input type="checkbox"/> sections are brought together to give the required page sequence<input type="checkbox"/> sections are fed squarely from hoppers to the transport chain<input type="checkbox"/> separation ensures that sections are transported squarely, without damage<input type="checkbox"/> production times can be met
1.5	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to run multiple hopper feeders
Assessment criteria	
The learner can:	
2.1	run multiple hopper feeders at the required speed, safely and efficiently
2.2	keep up the supply of materials throughout the run
2.3	monitor the output to ensure the job specification and company

	quality standards are met
2.4	record production information in accordance with company requirements
2.5	follow the company procedures for the removal of waste
2.6	stack or pack finished work for mailing or according to the company's approved method.

Learning outcome	The learner will:
3.	know how to set and run multiple hopper feeders
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down the machinery for: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.2	explain checks to make to ensure effective operation of the machinery
3.3	explain where to obtain information on the setting and operation of machinery
3.4	explain the company procedure for obtaining authorisation to begin production and why it is important to follow the procedure
3.5	explain when, how and what to monitor to ensure the quality of the output
3.6	explain the company procedure for the disposal of waste
3.7	define the possible causes of faults which can result in, for example: <ul style="list-style-type: none"> <input type="checkbox"/> sections not gathered in the correct order <input type="checkbox"/> sections not inserted in the correct order <input type="checkbox"/> sections failing to feed and separate <input type="checkbox"/> sections feeding unevenly <input type="checkbox"/> sections tearing <input type="checkbox"/> sections marking
3.8	describe 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
3.9	describe problems that can occur when operating machinery that may not be resolved by adjustment and the company procedure for dealing with them.

Unit 241 Set and run multiple hopper feeders

Supporting information

Guidance

AC3.2 – Candidates must explain at least **three** checks to make to ensure effective operation of machinery.

AC3.5 – Candidates must give at least **three** examples of things to monitor

AC3.6 – Candidates must explain company disposal procedures for at least **two** types of waste.

AC3.8 – Candidates must describe at least **three** situations.

AC3.9 – Candidates must describe at least **two** problems.

UAN:	Y/601/9411
Level:	Level 2
Credit value:	4
GLH:	25
Relationship to NOS:	This unit is linked to Proskills NOS Unit 407
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and run laminating equipment. There is also the need to have knowledge of adjustments and problem solving when operating this type of equipment

Learning outcome	The learner will:
1.	be able to set laminating equipment
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up the laminator, so that: <ul style="list-style-type: none"> <input type="checkbox"/> laminating film is fed squarely on to the product <input type="checkbox"/> laminating takes place without marking, creasing or air bubbles <input type="checkbox"/> production times can be met
1.5	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to run laminating equipment
Assessment criteria	
The learner can:	
2.1	operate the machinery at the required production speed and in accordance with company safety guidelines
2.2	keep up the supply of materials throughout the run
2.3	monitor the output to ensure the job specification and company quality standards are met
2.4	record production information in accordance with company requirements

2.5	follow the company procedures for the removal of waste
2.6	stack or pack finished work in accordance with company approved method.

Learning outcome	The learner will:
3.	know how to set and run laminating equipment
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down the machinery for: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.2	explain checks to make to ensure effective operation of the machinery
3.3	explain where to obtain information on the setting and operation of machinery
3.4	explain the company procedure for obtaining authorisation to begin production and why it is important to follow the procedure
3.5	explain when, how and what to monitor to ensure the quality of the output, give 3 examples of things to monitor
3.6	explain the company procedure for the disposal of waste
3.7	define the possible causes of faults which can result in, for example: <ul style="list-style-type: none"> <input type="checkbox"/> bubbles <input type="checkbox"/> creases <input type="checkbox"/> material not fed square <input type="checkbox"/> de lamination
3.8	describe 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
3.9	describe problems that can occur when operating machinery that may not be resolved by adjustment and the company procedure for dealing with them.

Unit 244 Set and run laminating equipment

Supporting information

Guidance

AC3.2 – Candidates must explain at least **three** checks to make to ensure effective operation of machinery.

AC3.5 – Candidates must give at least **three** examples of things to monitor

AC3.6 – Candidates must explain company disposal procedures for at least **two** types of waste.

AC3.8 – Candidates must describe at least **three** situations.

AC3.9 – Candidates must describe at least **two** problems.

Unit 245

Set and run slitting and re-reeling equipment - adhesive label production

UAN:	R/601/9410
Level:	Level 2
Credit value:	3
GLH:	19
Relationship to NOS:	This unit is linked to Proskills NOS Unit408
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and run slitting and re-reeling equipment. There is also the need to have knowledge of adjustments and problem solving when operating this type of equipment.

Learning outcome	The learner will:
1.	be able to set slitting and re-reeling equipment
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up the slitting and re-reeling equipment, so that, for example: <ul style="list-style-type: none"><input type="checkbox"/> slitting is clean without any burrs<input type="checkbox"/> waste is removed from final reels<input type="checkbox"/> reels are produced of the required length, meterage, quantity<input type="checkbox"/> reels are square to the core<input type="checkbox"/> production times can be met
1.5	ensure the output meets the job specifications and company quality standard prior to full production.

Learning outcome	The learner will:
2.	be able to run slitting and re-reeling equipment
Assessment criteria	
The learner can:	
2.1	operate the machinery at the required production speed and in accordance with company guidelines
2.2	keep up the supply of materials throughout the run

2.3	monitor the output to ensure the job specification and company quality standards are met
2.4	record production information in accordance with company requirements
2.5	follow the company procedures for the removal of waste
2.6	stack or pack finished work in accordance with company approved method.

Learning outcome	The learner will:
3.	know how to set and run slitting and re-reeling equipment in - adhesive label production
Assessment criteria	
The learner can:	
3.1	explain how to start up and shut down the machinery for: <ul style="list-style-type: none"> <input type="checkbox"/> normal operation <input type="checkbox"/> emergency situations
3.2	explain checks to make to ensure effective operation of the machinery
3.3	explain where to obtain information on the setting and operation of machinery
3.4	explain the company procedure for obtaining authorisation to begin production and why it is important to follow the procedure
3.5	explain when, how and what to monitor to ensure the quality of the output
3.6	explain the company procedure for the disposal of waste
3.7	define the possible causes of faults which can result in, for example: <ul style="list-style-type: none"> <input type="checkbox"/> reels of the wrong length <input type="checkbox"/> reels out of square to the core <input type="checkbox"/> inaccurate slitting.

Unit 245

Set and run slitting and re-reeling equipment - adhesive label production

Supporting information

Guidance

AC3.2 – Candidates must explain at least **three** checks to make to ensure effective operation of machinery.

AC3.5 – Candidates must give at least **three** examples of things to monitor

AC3.6 – Candidates must explain company disposal procedures for at least **two** types of waste.

Unit 301

Promote and maintain health and safety in a print related working environment

UAN:	L/601/9390
Level:	Level 3
Credit value:	4
GLH:	17
Relationship to NOS:	This unit is linked to Proskills NOS Unit AG2.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to work safely in the print related environment, to be able to carry out the correct actions should an accident or emergency occur and to promote and develop safe working practices. The learner will also need to know how to monitor the Health and Safety of others. Finally the learner is required to show awareness of associated problems that can occur and possible solutions.

Learning outcome	The learner will:
1.	know which acts, regulations and guidelines apply to the print related working environment
Assessment criteria	
The learner can:	
1.1	state which acts, regulations and guidelines apply to the print related working environment
1.2	explain how these acts, regulations and guidelines apply to the print related working environment.

Learning outcome	The learner will:
2.	know how to monitor and implement changes in health and safety acts, regulations and guidelines
Assessment criteria	
The learner can:	
2.1	explain how to monitor changes in health and safety acts, regulations and guidelines, to include: <ul style="list-style-type: none"><input type="checkbox"/> accessing HSE information<input type="checkbox"/> receiving training updates

2.2	explain how to introduce and implement changes
2.3	explain how to monitor the implementation of changes in Health and Safety to the working environment.

Learning outcome	The learner will:
3.	know how to carry out a formal assessment of hazards and risks in the print related working environment and the types of risk or hazards that exist
Assessment criteria	
The learner can:	
3.1	describe the steps in carrying out a formal risk assessment
3.2	explain how to record the findings of the risk assessment and why recording is important
3.3	explain who should be made aware of the findings and how
3.4	explain why it is important to inform the relevant people of the findings
3.5	describe examples of risks or hazards that can occur in their working environment.

Learning outcome	The learner will:
4.	be able to identify hazards and assess risks in the print related working environment
Assessment criteria	
The learner can:	
4.1	carry out a risk assessment of the print related working environment
4.2	report the findings of the risk assessment in accordance with company procedures and legislation.

Learning outcome	The learner will:
5.	know how to promote safe working practices
Assessment criteria	
The learner can:	
5.1	give examples of information that promote safe working practices related to the print related working environment
5.2	explain how each of the examples given promote safe working practices.

Learning outcome	The learner will:
6.	be able to promote safe working practices
Assessment criteria	
The learner can:	
6.1	disseminate information on safe working practices.

Learning outcome	The learner will:
7.	be able to adopt a safe method of work
Assessment criteria	
The learner can:	
7.1	plan and organise a safe method of work.
7.2	select and use personal protective equipment in accordance with company guidelines and legislation
7.3	select and use print related materials in accordance with company guidelines and legislation.

Learning outcome	The learner will:
8.	know how to ensure there is no unauthorised or unsafe access to the working areas
Assessment criteria	
The learner can:	
8.1	explain how to establish if a person is authorised to enter the work area
8.2	explain how to ensure that authorised people entering the work area are kept safe.

Learning outcome	The learner will:
9.	know how to monitor colleagues to ensure they comply with health and safety requirements
Assessment criteria	
The learner can:	
9.1	explain how to monitor colleagues to ensure they comply with health and safety requirements.

Learning outcome	The learner will:
10.	know what to do in the event of accidents or emergencies
Assessment criteria	
The learner can:	
10.1	describe the company procedures to follow in the case of an accident
10.2	describe the company procedures to follow in the case of an emergency
10.3	describe the procedure for evacuating workers and visitors
10.4	describe the procedure for reporting and recording accidents and emergencies.

Learning outcome	The learner will:
11. understand the problems that can occur with promoting and maintaining Health and Safety within the print related working environment and the potential solutions	
Assessment criteria	
The learner can:	
11.1	<p>explain problems that can arise when promoting Health and Safety, which relate to the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Problem with communicating information to others <input type="checkbox"/> Problem with introducing changes <input type="checkbox"/> Problem with monitoring colleagues compliance with Health and Safety requirements
11.2	<p>explain how to overcome each of the problems that can arise when promoting health and safety.</p>

Unit 301

Promote and maintain health and safety in a print related working environment

Supporting information

Guidance

AC3.5 – Candidates must describe at least **three** examples of risks or hazards that can occur in their working environment.

AC5.1 & 5.2 – Candidates must explain at least **three** examples of information that promote safe working practices and how they promote this.

AC11.1 – Candidates must explain at least **three** problems that can arise when promoting health and safety.

AC11.2 – Candidates must explain how to overcome each of the problems identified in AC11.1.

Unit 302

Contribute to improving the effectiveness of the print organisation

UAN:	D/601/9393
Level:	Level 3
Credit value:	5
GLH:	18
Relationship to NOS:	This unit is linked to Proskills NOS Unit FIS2.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to contribute to the improvement of the organisation through the use of resources, communications and working relationships within the Print working environment.

Learning outcome	The learner will:
1.	know how to obtain and understand the work schedule
Assessment criteria	
The learner can:	
1.1	explain the Organisational procedure for obtaining the work schedule
1.2	explain what to do if the work schedule is:
	<input type="checkbox"/> unclear
	<input type="checkbox"/> not achievable.

Learning outcome	The learner will:
2.	know how to ensure that the correct quantities of products and materials and human resources are used
Assessment criteria	
The learner can:	
2.1	explain how to ensure that the required quantities of products and materials and human resources are selected.

Learning outcome	The learner will:
3.	know how to minimise wastage of materials
Assessment criteria	
The learner can:	
3.1	list types of material that can potentially be wasted
3.2	describe what actions can be taken to minimise wastage of the materials listed
3.3	explain how surplus materials may be reused.

Learning outcome	The learner will:
4.	know why it is important to contribute to improving the effectiveness of the organisation
Assessment criteria	
The learner can:	
4.1	explain reasons for contributing to improving the effectiveness of the organisation.

Learning outcome	The learner will:
5.	know what information to share with colleagues on own job role and why this is important
Assessment criteria	
The learner can:	
5.1	give examples of information linked to own job role that needs to be shared with colleagues
5.2	explain why sharing information with colleagues is important.

Learning outcome	The learner will:
6.	be able to share information with colleagues
Assessment criteria	
The learner can:	
6.1	share information with colleagues using different methods, for example: <ul style="list-style-type: none"> <input type="checkbox"/> face to face conversations <input type="checkbox"/> company systems <input type="checkbox"/> written notes <input type="checkbox"/> drawings / sketches <input type="checkbox"/> telephone (voice or text) <input type="checkbox"/> email <input type="checkbox"/> internet.

Learning outcome	The learner will:
7.	know how to identify and pass on improvements to work activities
Assessment criteria	
The learner can:	
7.1	explain ways to identify improvements that can be made in work activities
7.2	explain how to pass on suggestions for improvements identified in line with organisational policies
7.3	explain who to make the suggestions to and why these people need to be made aware.

Learning outcome	The learner will:
8.	know how and why to identify opportunities and needs for self development and how to manage this information
Assessment criteria	
The learner can:	
8.1	explain ways that a need to update skills and or knowledge of the print industry can be identified
8.2	give examples of how to check opportunities for self development related to the print industry
8.3	explain the benefits of keeping skills and knowledge up to date and how it benefits <ul style="list-style-type: none"> <input type="checkbox"/> the individual <input type="checkbox"/> the organisation.

Learning outcome	The learner will:
9.	know why it is important to have good relationships with customers
Assessment criteria	
The learner can:	
9.1	explain benefits of having good relationships with customers.

Unit 302

Contribute to improving the effectiveness of the print organisation

Supporting information

Guidance

AC3.1 – Candidates must list at least **three** types of material that can potentially be wasted.

AC4.1 – Candidates must explain at least **three** reasons for contributing to improving the effectiveness of the organisation.

AC5.1 – Candidates must give at least **three** examples of information linked to their own job role that needs to be shared with colleagues.

AC7.1 – Candidates must explain at least **two** ways to identify improvements that can be made in work activities.

AC8.1 – Candidates' must explain at least **two** ways that a need to update skills or knowledge of the print industry can be identified.

AC8.2 – Candidates must give at least **two** examples of how to check opportunities for self-development.

AC9.1 – Candidates must explain at least **three** benefits of having good relationships with customers.

Unit 303

Plan work to meet production requirements

UAN:	J/502/8501
Level:	Level 3
Credit value:	4
GLH:	16
Relationship to NOS:	This unit is linked to Proskills NOS Unit 120.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to plan and set out the work required, the sequence of work and how to accurately determine the time needed to complete the workload.

Learning outcome	The learner will:
1.	be able to interpret production requirements
Assessment criteria	
The learner can:	
1.1	obtain and check details of jobs to be output
1.2	identify the finished product required by the customer
1.3	identify what their department or area of work is required to produce
1.4	identify the order of tasks required to meet the output.

Learning outcome	The learner will:
2.	be able to plan production tasks to meet customer requirements
Assessment criteria	
The learner can:	
2.1	confirm that the resources needed to complete the tasks are identified for example: equipment, materials and labour
2.2	realistically estimate the time needed to complete each task
2.3	plan work to avoid unnecessary repetition and re-working.

Learning outcome	The learner will:
3. know how to plan work to meet production requirements	
Assessment criteria	
The learner can:	
3.1	state the company procedures for communicating with: <ul style="list-style-type: none"> <input type="checkbox"/> colleagues <input type="checkbox"/> customers
3.2	describe the company requirements for handling, security and storage of customer material including: <ul style="list-style-type: none"> <input type="checkbox"/> computer system security and virus protection <input type="checkbox"/> print with time-sensitive or restricted release dates <input type="checkbox"/> high value products or print with a high risk of theft <input type="checkbox"/> restriction to staffing access
3.3	describe the workplace policy and practice in relation to the following: <ul style="list-style-type: none"> <input type="checkbox"/> workplace standards and procedures <input type="checkbox"/> the range of work carried out in the workplace <input type="checkbox"/> the working practices existing in the workplace <input type="checkbox"/> the key job roles within the printing and graphic communications industry and their main purposes <input type="checkbox"/> data protection and copyright
3.4	describe the influencing factors when: <ul style="list-style-type: none"> <input type="checkbox"/> selecting one process over another <input type="checkbox"/> the choice of processes for any particular product
3.5	explain the responsibilities in regards of time and resources including: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery available <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity <input type="checkbox"/> the relationship between productivity and competitiveness
3.6	explain the administrative procedures, including: <ul style="list-style-type: none"> <input type="checkbox"/> planning <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting
3.7	explain the main features of quality assurance and quality control systems, including: <ul style="list-style-type: none"> <input type="checkbox"/> techniques for controlling quality <input type="checkbox"/> equipment for controlling quality in digital artwork, pre-press and printing areas <input type="checkbox"/> light standards for viewing and assessing colour print
3.8	explain the function of a proof in the printing process.

UAN:	T/502/8526
Level:	Level 3
Credit value:	4
GLH:	16
Relationship to NOS:	This unit is linked to Proskills NOS Unit 126.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to start-up and shut-down digital systems and to carry out effective and safe working systems. It also includes problem solving and fault identification.

Learning outcome	The learner will:
1.	be able to start up and close down imaging systems
Assessment criteria	
The learner can:	
1.1	start up the digital system hardware in accordance with company procedures
1.2	set up the digital system hardware to meet the job requirements
1.3	open the required software application program(s)
1.4	follow workplace security procedures for the following: <ul style="list-style-type: none"> <input type="checkbox"/> file security <input type="checkbox"/> system security <input type="checkbox"/> virus protection
1.5	save data files at company recommended/appropriate intervals
1.6	archive completed data files in the file storage system in accordance with company procedures
1.7	exit the application and system software after use
1.8	close down the hardware after use in accordance with Standard Operating Procedures.

Learning outcome	The learner will:
2.	be able to contribute to the effective operation of digital systems
Assessment criteria	
The learner can:	
2.1	carry out system housekeeping activities, for example: <ul style="list-style-type: none"> <input type="checkbox"/> software and system checks <input type="checkbox"/> hardware checks <input type="checkbox"/> organisation of digital filing systems <input type="checkbox"/> back-up of stored files <input type="checkbox"/> deletion of unwanted files <input type="checkbox"/> hard-drive maintenance.

Learning outcome	The learner will:
3.	know how to maintain digital systems in working order
Assessment criteria	
The learner can:	
3.1	describe how to ensure the safe handling of customer material as required by the company
3.2	state the requirements for security and storage within the company for: <ul style="list-style-type: none"> <input type="checkbox"/> computer system security and virus protection <input type="checkbox"/> Secure means of archiving digital and conventional artwork <input type="checkbox"/> company policy and procedures regarding internet access <input type="checkbox"/> company policy on Confidential Information
3.3	describe the operation of equipment for the following: <ul style="list-style-type: none"> <input type="checkbox"/> the assembly and set-up of digital systems <input type="checkbox"/> the operation of digital systems
3.4	describe how Digital Imaging is affected by different file formats for digital images, the differences between them and the reasons for using them
3.5	state how to deal with digital files in relation to file management
3.6	explain their responsibility towards environmental considerations for the following: <ul style="list-style-type: none"> <input type="checkbox"/> the legal requirements for the classification, storage, carriage and disposal of waste <input type="checkbox"/> environmental management <input type="checkbox"/> control of pollution, including disposal of computer equipment and consumables
3.7	give examples of faults than can occur in maintaining digital systems, what causes them and how to correct them
3.8	explain the company procedures on reporting faults to include: <ul style="list-style-type: none"> <input type="checkbox"/> faults they have responsibility to correct <input type="checkbox"/> faults which fall outside their area of responsibility/capability and the importance of following procedures.

Unit 304 Maintain digital systems in working order

Supporting information

Guidance

AC3.7 – Candidates must give at least **two** examples of faults that can occur, their causes and how to correct them.

UAN:	L/601/9406
Level:	Level 3
Credit value:	4
GLH:	22
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and understanding of the Print Industry, the main processes, products and equipment and also understanding of the importance of confidentiality within the Industry

Learning outcome	The learner will:
1.	know the printing processes used within the print industry
Assessment criteria	
The learner can:	
1.1	state the main print processes used within the print industry
1.2	explain the basic principles of each process
1.3	state a product that can be produced by each process
1.4	state stages of production workflow in print.

Learning outcome	The learner will:
2.	understand the factors that influence the choice of printing process
Assessment criteria	
The learner can:	
2.1	explain the advantages of each printing process
2.2	explain the disadvantages of each printing process.

Learning outcome	The learner will:
3.	know the types of equipment used within the print industry
Assessment criteria	
The learner can:	
3.1	list pieces of equipment/machinery used within the print production process
3.2	explain the purpose of each piece of equipment/machinery
3.3	explain the difference between in line and off line operations.

Learning outcome	The learner will:
4. recognise and understand the need for confidentiality within the print industry	
Assessment criteria	
The learner can:	
4.1	list types of information concerning a print job that may need to be kept confidential
4.2	explain the reasons information should be kept confidential.

Unit 305 Understanding the print industry

Supporting information

Guidance

AC1.1 – Candidates must state at least **five** main printing processes.

AC1.4 – Candidates must state **three** stages of production of workflow in print.

AC3.1 – Candidates must list at least **three** pieces of equipment/machinery used within the print production process.

AC4.1 – Candidates must list and least **two** types of information concerning a print job that may need to be confidential.

Unit 306

Maintain print equipment in working order

UAN:	K/601/9395
Level:	Level 3
Credit value:	6
GLH:	23
Relationship to NOS:	This unit is linked to Proskills NOS Unit 004.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to maintain equipment in working order, and includes identifying and correcting faults within their area of responsibility.

Learning outcome	The learner will:
1. know how to maintain equipment in working order	
Assessment criteria	
The learner can:	
1.1	describe the principal activities involved with machine cleaning, lubrication and maintenance in relation to the following: <ul style="list-style-type: none"><input type="checkbox"/> roles and responsibilities for cleaning, lubrication and maintenance<input type="checkbox"/> the choice and use of suitable cleaning agents and lubricants<input type="checkbox"/> the maintenance plans for equipment<input type="checkbox"/> when and how to start up and shut down equipment for maintenance and cleaning
1.2	describe how the following could affect the maintenance of equipment: <ul style="list-style-type: none"><input type="checkbox"/> tools<input type="checkbox"/> materials<input type="checkbox"/> production requirement<input type="checkbox"/> lack of skills or training<input type="checkbox"/> sources of information
1.3	list consumables that are likely to require periodic replacement
1.4	list parts that may be required at short notice
1.5	explain the company policies and processes on the availability of parts and consumables.

Learning outcome	The learner will:
2.	be able to maintain equipment in working order
Assessment criteria	
The learner can:	
2.1	ensure that it is safe to start cleaning activities
2.2	obtain the required materials and equipment needed for cleaning
2.3	ensure that cleaning materials and equipment are used in ways which minimise waste and pollution
2.4	ensure that used cleaning agents and waste materials are disposed of in accordance with company procedures
2.5	check that machines are safe to operate, free from waste and cleaning materials prior to start up.

Learning outcome	The learner will:
3.	know how to identify, correct and record machine faults
Assessment criteria	
The learner can:	
3.1	describe faults that should be able to be corrected without summoning external assistance
3.2	explain how to obtain and analyse information about the machine faults to identify their likely cause
3.3	explain how to correct the faults identified including the tools, equipment and PPE required
3.4	explain the company procedures on reporting faults which fall outside their area of responsibility/capability and the importance of following procedures
3.5	explain how to assess the estimated time it will take to rectify faults and the company procedures on informing the relevant people
3.6	explain how and why to record the details of machine faults and production down-time following company procedures.

Learning outcome	The learner will:
4.	be able to implement a programme of lubrication and maintenance
Assessment criteria	
The learner can:	
4.1	identify the lubrication points on the machine and the manufacturer's recommended types of lubricant and lubrication intervals
4.2	ensure that the maintenance plan is implemented and kept up to date
4.3	ensure that filters such as oil, air and water, are cleaned and/or replaced in line with needs or maintenance schedules
4.4	examine components for defects or excessive wear.

Unit 306

Maintain print equipment in working order

Supporting information

Guidance

AC3.1 – Candidates must describe at least **three** faults that should be able to be corrected without summoning external assistance.

UAN:	D/601/9426
Level:	Level 3
Credit value:	8
GLH:	23
Relationship to NOS:	This unit is linked to Proskills NOS Units 267, 268 & 269.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage the operation and quality of output for printing machines such as sheet-fed multi-unit lithographic printing machines, wide-web printing machinery and narrow-web printing machinery. Candidates will need to be aware of the range of quality checks used in the organisation, and also the recording of relevant information. Candidates must also demonstrate how to give instructions on processes to colleagues.

Learning outcome	The learner will:
1.	be able to make-ready printing machines
Assessment criteria	
The learner can:	
1.1	obtain all the information required for the job
1.2	identify and obtain materials of the required type, quantity and quality to meet the job requirements
1.3	identify any further production requirements
1.4	check that the machine and the work area are safe and ready for production
1.5	check output meets the company's quality standard, making appropriate adjustments, if the standard is not met
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage the output from print production machines
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed,

	with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements.
2.3	run the required number of good copies, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage printing machines
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain their responsibilities in regards of time and resources: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing printing machines, their probable causes and possible solutions including problems that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery
3.9	explain the checks to make to ensure the instructions have been understood and followed.

Learning outcome	The learner will:
4.	know how to monitor the quality of output from print production machines
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe the quality control aids located on the printed copy to aid in the monitoring of production.
4.5	describe methods used to monitor the standard of output achieved
4.6	explain why it is important to clearly identify both good and bad copy on completion of the run
4.7	describe the company procedures for the removal of waste
4.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine make-ready <input type="checkbox"/> running speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
5.	be able to monitor the quality of product throughout the production process
Assessment criteria	
The learner can:	
5.1	operate the machine at the required production speeds maintaining quality of output
5.2	use recognised quality control methods to check output against the approved sample
5.3	produce the required number of good copies to meet customer/company requirements
5.4	identify the product which has met the approved standards
5.5	follow company and legal procedures to identify and remove waste
5.6	follow company procedures for completing production and quality assurance records.

Unit 307 Manage printing machines

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur.

AC3.6 – Candidates must identify at least **three** machine parts that may require replacing.

AC4.5 – Candidates must describe at least **three** methods used to monitor the standard of output achieved.

UAN:	J/502/8532
Level:	Level 3
Credit value:	4
GLH:	15
Relationship to NOS:	This unit is linked to Proskills NOS Unit 122.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to ensure that colours are properly represented to the customer from the outset and that the colours when printed are predictable and meets the customer's expectations or are at least within acceptable commercial parameters.

Learning outcome	The learner will:
1.	be able to manage the calibration of digital prepress equipment
Assessment criteria	
The learner can:	
1.1	calibrate a display monitor in the workflow to produce accurate colour reproduction
1.2	calibrate digital output devices, eg image setter/CTP setter, digital press, proofer(s)
1.3	store device profiles created during calibration
1.4	maintain records of calibration checks as required by the company.

Learning outcome	The learner will:
2.	be able to configure pre-press software within the workflow
Assessment criteria	
The learner can:	
2.1	identify which software applications in the workflow have colour management features
2.2	identify what each colour management feature in each software application is set to do
2.3	ensure that any software colour management features that may alter the colour values in digital images, either through the use of colour profiles, dot gain compensation/simulation, colour mode

	conversion or total ink content calculations, are configured to meet job requirements
2.4	establish what the typical dot gain is on printing machines and configure the application software or workflow appropriately to make allowance for dot gain
2.5	save software settings once configuration is complete
2.6	Inform colleagues who use the workflow are aware of how it is configured and where in the workflow colour mode changes and colour profiles are used
2.7	use appropriate reference material to check that the hardware and software colour management configuration produces reliable colour reproduction on press and/or from any 'high resolution' proofing device(s).

Learning outcome	The learner will:
3.	be able to use colour profiles correctly
Assessment criteria	
The learner can:	
3.1	identify source profiles and destination profiles stored within the workflow
3.2	select the required destination profiles for outputting to specific devices
3.3	ensure that source profiles embedded in image files are appropriate to meet job requirements
3.4	Where an embedded source profile is not correct or is missing, advise the appropriate person of the consequences
3.5	assign a new profile
3.6	assign the required profile to a file after conversion to a new colour mode
3.7	ensure that all application software in the workflow are set to use source and destination profiles appropriate to job requirements.

Learning outcome	The learner will:
4.	know how to manage colour reproduction in digital pre-press
Assessment criteria	
The learner can:	
4.1	state the requirements for security and storage within the company for computer system security and virus protection
4.2	state company procedures for communicating with: <ul style="list-style-type: none"> <input type="checkbox"/> colleagues <input type="checkbox"/> customers <input type="checkbox"/> suppliers
4.3	describe workplace policy and practice in relation to the following: <ul style="list-style-type: none"> <input type="checkbox"/> workplace objectives, priorities, standards and procedures <input type="checkbox"/> the range of work carried out in the workplace
4.4	describe the operation of equipment for the following: <ul style="list-style-type: none"> <input type="checkbox"/> the set-up of digital imaging equipment and software <input type="checkbox"/> the operation of digital imaging equipment and software

- 4.5 describe how Digital Imaging is affected by:
 - ☐ colour theory, eg: additive and subtractive systems such as RGB and CMYK; colour gamuts
 - ☐ colour management: how to set up, maintain and use image profiles
 - ☐ the range of methods, equipment, material and software appropriate to the imaging requirements
 - ☐ the assembly and set-up of image editing and output systems
 - ☐ the operation of image editing and output systems
- 4.6 state how to deal with digital files in relation to the following:
 - ☐ dealing with embedded information
 - ☐ file management
 - ☐ file types and which files formats can carry embedded profiles
- 4.7 explain the company administrative procedures, for example:
 - ☐ scheduling
 - ☐ recording and reporting
 - ☐ product labelling
 - ☐ reporting faults and production downtime
- 4.8 explain the main features of quality assurance and quality control systems, including:
 - ☐ techniques for controlling quality, including inspection, testing, sampling, use of input and output controls
 - ☐ equipment for controlling quality in pre-press
- 4.9 describe the principal activities involved with machine cleaning, lubrication and maintenance in relation to equipment worked on
- 4.10 explain the principal types of proof and their role in the printing process.

Unit 309

Produce approved colour proofs from digital artwork

UAN:	L/502/8533
Level:	Level 3
Credit value:	4
GLH:	16
Relationship to NOS:	This unit is linked to Proskills NOS Unit 128.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to produce; assess and correct hard-copy proofs produced from digital artwork that meet the criteria for a 'contract-quality' proof.

Learning outcome	The learner will:
1.	be able to produce digital proofs for print
Assessment criteria	
The learner can:	
1.1	confirm what kind of proof is required
1.2	locate and retrieve the files required for the proof
1.3	ensure the files are in the required format for proof output
1.4	include on the proof quality control aids
1.5	make sure the proofing device is calibrated, in serviceable condition and has the required paper and consumables loaded
1.6	make sure any colour profiles required to meet the job specification are selected for the proof, including: <ul style="list-style-type: none"><input type="checkbox"/> any profiles required related to the proofing paper<input type="checkbox"/> any profiles relating to the printing machine or standard 'dot gain' curves
1.7	output the proof at the required size and resolution
1.8	keep records of the work completed in accordance with company procedures.

Learning outcome	The learner will:
2.	be able to assess proofs against required specifications
Assessment criteria	
The learner can:	
2.1	inspect the proof and identify any defects, for example: <ul style="list-style-type: none"><input type="checkbox"/> physical defects in the making of the proof

	<input type="checkbox"/> colour irregularities <input type="checkbox"/> font or typographical problems <input type="checkbox"/> image resolution <input type="checkbox"/> trapping and knockout of colours <input type="checkbox"/> size and orientation of pages or images
2.2	carry out quality control checks on the proof to ensure required standards are met.

Learning outcome	The learner will:
3.	be able to modify digital artwork to meet specifications
Assessment criteria	
The learner can:	
3.1	identify amendments required to proofs
3.2	amend the proof to meet customer requirements
3.3	make sure the amendments are completed by the deadline set
3.4	re-proof the job, as required, until a final proof is approved by the customer or as set out in their company's procedures
3.5	reference and archive the approved digital file and any intermediate files, in accordance with their company's procedures
3.6	identify the approved proof in accordance with company procedures and make sure that any other unapproved proofs are archived or dealt with in accordance with their company's procedures.

Learning outcome	The learner will:
4.	know how to produce approved proofs from digital artwork
Assessment criteria	
The learner can:	
4.1	explain how the law affects printing in relation to: <input type="checkbox"/> copyright and ownership of images <input type="checkbox"/> obscenity <input type="checkbox"/> forgery
4.2	give an example of an ethical Issue relevant in printing
4.3	state the requirements for security and storage within the company for: <input type="checkbox"/> secure means of archiving digital and conventional proofs <input type="checkbox"/> retaining hard copy proofs
4.4	state the company procedures for communicating with customers
4.5	describe the workplace policy and practice in relation to the following: <input type="checkbox"/> standards <input type="checkbox"/> procedures
4.6	describe the operation of equipment for the following: <input type="checkbox"/> the set-up of proofing equipment and software <input type="checkbox"/> the operation of proofing equipment and software
4.7	describe how Digital Imaging is affected by: <input type="checkbox"/> colour theory, eg: additive and subtractive systems such as

	RGB and CMYK; colour gamuts <ul style="list-style-type: none"> <input type="checkbox"/> the relationship between image size, file size and resolution <input type="checkbox"/> file formats for digital images - the differences between them and the reasons for using them <input type="checkbox"/> colour management: how to set up, maintain and use image profiles
4.8	state how to deal with digital files in relation to the following: <ul style="list-style-type: none"> <input type="checkbox"/> file conversion techniques <input type="checkbox"/> file compression and decompression systems <input type="checkbox"/> file management
4.9	describe the causes and treatment of common faults in proof output
4.10	explain the administrative procedures, including: <ul style="list-style-type: none"> <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling
4.11	explain the main features of quality assurance and quality control systems, including: <ul style="list-style-type: none"> <input type="checkbox"/> techniques for controlling quality <input type="checkbox"/> equipment for controlling quality in printing <input type="checkbox"/> light standards for viewing and assessing colour printing
4.12	describe how the types and characteristics of paper, board and other commonly used substrates affect the visual appearance of a proof.
4.13	explain the principal types of proof and their role in the printing process.

UAN:	R/502/8534
Level:	Level 3
Credit value:	4
GLH:	10
Relationship to NOS:	This unit is linked to Proskills NOS Unit 130.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills.
Aim:	This unit covers the checking or 'preflighting' of digital artwork files supplied for production-scale printing. It includes knowledge of problems and possible solutions.

Learning outcome	The learner will:
1.	be able to preflight digital artwork files
Assessment criteria	
The learner can:	
1.1	identify the digital artwork files that are required to be preflight checked
1.2	select the preflight software to be used for checking the digital artwork and select a profile, rules or values, against which the artwork will be compared
1.3	preflight the artwork file(s) using the electronic preflight software
1.4	review the preflight report and save it, if required, in a suitable format, either electronic or paper based.

Learning outcome	The learner will:
2.	be able to interpret and report the results of preflighting digital artwork files
Assessment criteria	
The learner can:	
2.1	interpret the results of electronic preflighting and determine which issues reported are significant and which are not; giving reasons
2.2	identify whether the artwork file should be allowed to proceed to the next stage of production in accordance with company guidelines
2.3	decide the appropriate course of action to be taken for examples. <input type="checkbox"/> forward to next stage of production

	<input type="checkbox"/> amend content <input type="checkbox"/> return file to originator <input type="checkbox"/> seek advice
2.4	maintain any quality assurance or other records required by the organisation.

Learning outcome	The learner will:
3.	know how to preflight digital files
Assessment criteria	
The learner can:	
3.1	explain the purpose of preflight checks
3.2	outline the procedures to follow when: <ul style="list-style-type: none"> <input type="checkbox"/> the standard has been met <input type="checkbox"/> the standard cannot be met without further changes
3.3	describe how to ensure the safe handling of customer material as required by the company
3.4	describe how to deal with digital files in relation to the following: <ul style="list-style-type: none"> <input type="checkbox"/> file conversion techniques <input type="checkbox"/> missing fonts and images <input type="checkbox"/> knockout v overprinting <input type="checkbox"/> RGB v CMYK and other colour models
3.5	describe faults encountered in preflighting, their causes and possible solutions
3.6	explain the recording and reporting procedures, including: <ul style="list-style-type: none"> <input type="checkbox"/> who to inform <input type="checkbox"/> documentation required
3.7	explain the main features of quality assurance and quality control systems.

Unit 310 Preflight digital files

Supporting information

Guidance

AC3.5 – Candidates must describe at least **three** faults encountered in preflighting, their causes and possible solutions.

Unit 311

Manage colour digital printing machines

UAN:	J/502/8529
Level:	Level 3
Credit value:	6
GLH:	22
Relationship to NOS:	This unit is linked to Proskills NOS Unit 247.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to configure, operate, control and carry out maintenance of 'production-scale' digital colour printing machines.

Learning outcome	The learner will:
1.	be able to prepare digital colour printing machines for print
Assessment criteria	
The learner can:	
1.1	check that the digital colour printer is in serviceable condition and ready for production and that colour calibration and/or other periodic checks are up to date
1.2	obtain and check the job specification
1.3	ensure the required type, quantity and quality of materials are available to meet the job specification
1.4	determine the imposition requirements for the job
1.5	determine the post-printing requirements for the job
1.6	ensure the printer software is set to handle any colour profiles to meet the job specification
1.7	set up the print parameters for the printer and job requirements, including any colour settings
1.8	download or print the digital job file(s) to the digital printing machine so that: <ul style="list-style-type: none"><input type="checkbox"/> the print output meets the job specification<input type="checkbox"/> the image is complete, colour accurate, free from contamination or other faults, and in register<input type="checkbox"/> the correct fonts have been used<input type="checkbox"/> the correct substrates have been used<input type="checkbox"/> any duplexing or finishing options are correct<input type="checkbox"/> imposition, scaling and orientation are correct<input type="checkbox"/> the output satisfies the required quality standard.

Learning outcome	The learner will:
2.	be able to control the operation of digital colour printing machines
Assessment criteria	
The learner can:	
2.1	run the digital printing machine at the required speed and in accordance with company guidelines
2.2	keep up the supply of materials and consumables throughout the run
2.3	check that quality standards and job specifications are met, including the quality of the image, colour consistency and finishing accuracy
2.4	record production and quality assurance details in accordance with company guidelines
2.5	follow the company procedure for the removal of waste
2.6	stack work using the company approved method.

Learning outcome	The learner will:
3.	be able to maintain digital colour printing machines in serviceable condition
Assessment criteria	
The learner can:	
3.1	ensure that the manufacturer's instructions for the cleaning and maintenance of the digital printer are followed and completed at the recommended intervals
3.2	ensure that colour calibration and/or colour profiling is undertaken at the required intervals and that any colour profiles required by a colour Management System are installed in line with manufacturer's and company guidelines
3.3	ensure that the digital workflow is configured and operated so that colour documents and images are reproduced to meet the job specification.

Learning outcome	The learner will:
4.	know how to manage digital colour printing machines
Assessment criteria	
The learner can:	
4.1	state the company guidelines for security and storage for: <ul style="list-style-type: none"> <input type="checkbox"/> computer system security and virus protection <input type="checkbox"/> print with time-sensitive or restricted release dates <input type="checkbox"/> high value products or print with a high risk of theft <input type="checkbox"/> secure means of archiving digital and conventional artwork
4.2	describe the operation of equipment for the following: <ul style="list-style-type: none"> <input type="checkbox"/> the set-up of digital communications equipment and software <input type="checkbox"/> the operation of digital communications equipment and software
4.3	state how to deal with digital files in relation to the following: <ul style="list-style-type: none"> <input type="checkbox"/> file conversion techniques

	<input type="checkbox"/> file compression and decompression techniques <input type="checkbox"/> the transmission of digital files <input type="checkbox"/> file management
4.4	explain the administrative procedures, including: <ul style="list-style-type: none"> <input type="checkbox"/> planning <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling
4.5	explain the purpose of 'preflight' with regards to digital files and how this is done
4.6	explain the company procedures where incorrect colour profiles are embedded
4.7	describe the range of proofs in use and their role in the printing process and the limiting factors
4.8	explain the types of adjustments that can be made to meet the job specification and the company quality standards for the following: <ul style="list-style-type: none"> <input type="checkbox"/> machine settings <input type="checkbox"/> print download settings
4.9	describe faults that can occur that could affect: <ul style="list-style-type: none"> <input type="checkbox"/> quality of image <input type="checkbox"/> shortfall in output.

Learning outcome	The learner will:
5.	know how to monitor the quality of output from the digital printing machines
Assessment criteria	
The learner can:	
5.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/Variation
5.2	explain the purpose of achieving an approved copy
5.3	identify the items on the product to be monitored during production output
5.4	describe the quality control aids located on the printed copy to aid in the monitoring of production
5.5	describe a range of methods used to monitor the standard of output achieved
5.6	explain why it is important to clearly identify both good and bad copy on completion of the run
5.7	describe the company procedures for the removal of waste
5.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine makeready <input type="checkbox"/> running speeds <input type="checkbox"/> production time

<input type="checkbox"/> downtime in production.
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Learning outcome	The learner will:
6.	be able to monitor the quality of product throughout the production process
Assessment criteria	
The learner can:	
6.1	operate the machine at the required production speeds maintaining quality of output
6.2	use recognised quality control methods to check output against the approved sample
6.3	produce the required number of good copies to meet customer/company requirements
6.4	identify the product which has met the approved standards
6.5	follow company and legal procedures to identify and remove waste
6.6	follow company procedures for completing production and quality assurance records.

Unit 311 Manage colour digital printing machines

Supporting information

Guidance

AC4.9 – Candidates must describe at least **three** faults that could occur.

Unit 312

Control the use of variable data with digital printing machines

UAN:	F/502/8531
Level:	Level 3
Credit value:	4
GLH:	16
Relationship to NOS:	This unit is linked to Proskills NOS Unit 248.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to prepare and produce variable data for digital print and control the appropriate machinery. It also includes dealing with faults and problems.

Learning outcome	The learner will:
1.	be able to prepare variable data for use in digital printing
Assessment criteria	
The learner can:	
1.1	confirm that the company has complied with the requirements of the legislation covering data protection if processing personal data
1.2	confirm that the variable data file(s) supplied complies with the legislation covering data protection if it contains personal information
1.3	check that the file(s) supplied is in a format that can be used
1.4	ensure all necessary operations are carried out, for example: <ul style="list-style-type: none"><input type="checkbox"/> de-duping<input type="checkbox"/> data verification<input type="checkbox"/> incomplete record checks<input type="checkbox"/> postal sorting operations
1.5	identify the fields required for use in printing and relate them to the primary document.

Learning outcome	The learner will:
2.	be able to produce personalised printed products using variable data
Assessment criteria	
The learner can:	
2.1	set the print parameters so that the primary file and variable data file are merged as required, or so that the pre-merged output file will print in line with the job specification
2.2	run the job at the required speed, ensuring that the variable data is printed in the required place on each page and the data sequence is maintained from page to page in accordance with job requirements
2.3	ensure that the printed job is packed and labelled to identify all necessary information, for example: <ul style="list-style-type: none"> <input type="checkbox"/> the sequence of data output
2.4	complete quality and/or other documentation in accordance with company guidelines
2.5	ensure that personal data is protected from misuse and is dealt with in accordance with the legislation covering data protection on completion of the job.

Learning outcome	The learner will:
3.	know how to control the use of variable data with digital printing machines
Assessment criteria	
The learner can:	
3.1	explain their understanding of the law as it affects printing in relation to: <ul style="list-style-type: none"> <input type="checkbox"/> data protection <input type="checkbox"/> the Printers Imprint
3.2	state the requirements for security and storage within their company for: <ul style="list-style-type: none"> <input type="checkbox"/> computer system security and virus protection <input type="checkbox"/> print with time-sensitive or restricted release dates <input type="checkbox"/> secure means of archiving digital and conventional artwork
3.3	explain the terminology used within typography, artwork and design to include: <ul style="list-style-type: none"> <input type="checkbox"/> fonts <input type="checkbox"/> proof <input type="checkbox"/> layout <input type="checkbox"/> specification <input type="checkbox"/> imposition
3.4	state how to deal with digital files in relation to the following: <ul style="list-style-type: none"> <input type="checkbox"/> file management <input type="checkbox"/> file conversion techniques <input type="checkbox"/> file compression and decompression systems <input type="checkbox"/> the transmission of digital files <input type="checkbox"/> creating relationship between primary and secondary data

- 3.5 describe causes and treatments of common faults in digital imaging
- 3.6 describe the administrative procedures to include:
 - ☐ planning
 - ☐ scheduling
 - ☐ recording and reporting
 - ☐ product labelling
- 3.7 explain how to ensure compliance with the company quality standards
- 3.8 describe the range of proofs in use, their role in the printing process and the limiting factors
- 3.9 explain the meaning of mail merge and how to verify the file for output is in the required format
- 3.10 explain how to determine that a file containing print that has to be placed into the document during printing is in the required format to meet the job specification
- 3.11 explain how to download the primary file to the printer's memory or disc
- 3.12 explain the possible causes of faults which can cause the following problems
 - ☐ variable data being in the wrong place or wrong sequence
 - ☐ stoppages causing records to be printed twice
 - ☐ stoppages causing records to be missed.

Unit 312 Control the use of variable data with digital printing machines

Supporting information

Guidance

AC3.5 – Candidates must describe at least **three** causes and treatments of common faults in digital imaging.

Unit 313

Manage materials handling for newspaper and periodicals print finishing

UAN:	K/502/8619
Level:	Level 3
Credit value:	6
GLH:	26
Relationship to NOS:	This unit is linked to Proskills NOS Unit 331.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage the materials handling process in Newspapers and Periodicals. This includes the management of personnel, ensuring they are suitably trained and skilled. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output.

Learning outcome	The learner will:
1.	be able to plan materials handling for finishing operations
Assessment criteria	
The learner can:	
1.1	identify: <ul style="list-style-type: none"><input type="checkbox"/> the type and quantity of materials required for production<input type="checkbox"/> the location and availability of materials
1.2	check and confirm that materials handling machinery is safe and suitable for the work required
1.3	allocate materials handling tasks according to people's ability to handle the task safely and efficiently
1.4	explain to staff what the movement requirements and deadlines are
1.5	check that staff are aware of the safety precautions they must take when operating materials handling machinery and machines.

Learning outcome	The learner will:
2.	be able to monitor the movement of materials for finishing operations
Assessment criteria	
The learner can:	
2.1	check that materials are delivered on time
2.2	monitor materials handling to check that: <ul style="list-style-type: none"> <input type="checkbox"/> machines and machinery operate without damage to materials <input type="checkbox"/> operators use safe working methods
2.3	maintain effective communications and good working relationships with departments affected by the movement of materials
2.4	keep records of materials handling as required by company guidelines.

Learning outcome	The learner will:
3.	know how to control materials handling for newspaper and periodicals print finishing
Assessment criteria	
The learner can:	
3.1	explain the responsibilities in regards of time and resources for the following: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.2	describe the problems that can occur when managing machines and people, their probable causes and possible solutions for the following that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the material being delivered on time <input type="checkbox"/> produce a shortfall in the supply of materials <input type="checkbox"/> damage the material <input type="checkbox"/> cause the wrong material to be delivered <input type="checkbox"/> affect Health and Safety
3.3	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure machinery is maintained to the required standard
3.4	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.5	explain the companies procedure for allocating materials handling tasks according to people's ability to handle the task safely and efficiently and explain why an operator would not be suitable for the task
3.6	explain the companies procedure for explaining to operators what the movement requirements and deadlines are
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting

- ☐ product labelling
- ☐ reporting faults and production downtime
- 3.8 explain the company procedures for the repair or replacement of machinery which is faulty or not suitable, to include;
 - ☐ reporting procedures
 - ☐ recurring faults
- 3.9 explain the importance of cooperation with colleagues who are responsible for remedying faults
- 3.10 explain how to check the machinery is safe to use after repair
- 3.11 explain the company requirements for recording information on adjustment and repair.

Unit 313

Manage materials handling for newspapers and periodicals finishing

Supporting information

Guidance

AC3.4 – Candidates must identify at least **three** machine parts that may require replacing, the company policy on the availability and the replacement of these.

AC3.5 – Candidates must give at least **two** examples of why an operator would not be suitable for handling tasks mentioned in the AC.

UAN:	M/502/8556
Level:	Level 3
Credit value:	4
GLH:	18
Relationship to NOS:	This unit is linked to Proskills NOS Unit 343.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage adhesive binding machinery. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output.

Learning outcome	The learner will:
1.	be able to make-ready adhesive binding machine
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set the adhesive binding machinery to meet the job specification taking into consideration, for example: <ul style="list-style-type: none"> <input type="checkbox"/> the size of the article <input type="checkbox"/> the temperature and volume of the adhesive <input type="checkbox"/> production speeds <input type="checkbox"/> synchronization with other machinery <input type="checkbox"/> production times
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output from adhesive binding machinery
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of good copies, keeping spoiled material to a minimum
2.4	record the production and quality assurance details following company procedures
2.5	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage adhesive binding machinery
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe 3 problems that can occur when managing production machines, their probable causes and possible solutions for examples: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery
3.9	explain the checks to make to ensure the instructions have been understood and followed.

Learning outcome	The learner will:
4.	be able to monitor the quality of product from the adhesive binding machines
Assessment criteria	
The learner can:	
4.1	operate the machine at the required production speeds maintaining quality of output
4.2	use recognised quality control methods to check output against the approved sample
4.3	produce the required number of good copies to meet customer/company requirements
4.4	identify the product which has met the approved standards
4.5	follow company and legal procedures to identify and remove waste
4.6	follow company procedures for recording production and quality assurance records.

Learning outcome	The learner will:
5.	know how to monitor the quality of output from the adhesive binding machines
Assessment criteria	
The learner can:	
5.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/variation
5.2	describe the purpose of achieving an approved copy
5.3	identify the items on the product to be monitored during production output
5.4	describe the quality control aids located on the printed copy to aid in the monitoring of production
5.5	describe methods used to monitor the standard of output achieved
5.6	explain why it is important to clearly identify both good and bad copy on completion of the run
5.7	describe the company procedures for the removal of waste
5.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine makeready <input type="checkbox"/> running speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Unit 314 Manage adhesive binding machinery

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur when managing production machines, their probable causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may require replacing, the company policy on the availability and replacement of these.

AC5.5 – Candidates must describe at least **three** methods used to monitor the standard of output achieved.

Unit 315

Manage cutting and creasing machinery

UAN:	K/502//8586
Level:	Level 3
Credit value:	9
GLH:	26
Relationship to NOS:	This unit is linked to Proskills NOS Unit 351.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to manage cutting and creasing machinery in the Print Finishing process They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output.

Learning outcome	The learner will:
1. be able to make-ready cutting and creasing machinery for production	
Assessment criteria	
The learner can:	
1.1	obtain all the information required for the job
1.2	identify and obtain the materials that must be used for the job
1.3	ensure the working environment is safe for production
1.4	check that the cutting forme matches the job
1.5	set the cutting and creasing machinery ready to run, taking into consideration, for example: <ul style="list-style-type: none"><input type="checkbox"/> safety requirements<input type="checkbox"/> material is fed squarely into the machine<input type="checkbox"/> the position of cuts and creases is in line with job requirements<input type="checkbox"/> material is cut and creased squarely and delivered without damage<input type="checkbox"/> production time
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output from cutting and creasing machines
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of good copies, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage cutting and creasing machines
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery
3.9	explain the checks to make to ensure the instructions have been

understood and followed.

Learning outcome	The learner will:
4.	know how to monitor the quality of output from cutting and creasing machines
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"><input type="checkbox"/> frequency<input type="checkbox"/> type of checks<input type="checkbox"/> viewing conditions<input type="checkbox"/> quality control aids/devices<input type="checkbox"/> acceptable tolerances/Variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe the quality control aids located on the printed copy to aid in the monitoring of production
4.5	describe methods used to monitor the standard of output achieved
4.6	explain why it is important to clearly identify both good and bad copy on completion of the run
4.7	describe the company procedures for the removal of waste
4.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"><input type="checkbox"/> machine makeready<input type="checkbox"/> running speeds<input type="checkbox"/> production time<input type="checkbox"/> downtime in production.

Unit 315 Manage cutting and creasing machinery

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems, their causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, company policy on the availability and replacement of these.

AC4.5 – Candidates must describe at least **three** methods used to monitor the standard of output achieved.

Unit 316

Manage automated inserting equipment for newspapers and periodicals

UAN:	R/502/8632
Level:	Level 3
Credit value:	6
GLH:	25
Relationship to NOS:	This unit is linked to Proskills NOS Unit 344
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage automated inserting equipment for newspapers and periodicals. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output.

Learning outcome	The learner will:
1.	be able to make-ready automated inserting equipment for newspapers and periodicals
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set the inserting equipment to meet the job specification taking into consideration, for example: <ul style="list-style-type: none"><input type="checkbox"/> the size of the document<input type="checkbox"/> the correct sequence<input type="checkbox"/> mis-feed detector(s) are set correctly<input type="checkbox"/> synchronization with other machinery<input type="checkbox"/> production time
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output from automated inserting equipment for newspapers and periodicals
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of good copies, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage automated inserting equipment for newspapers and periodicals
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the product <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the

print finishing machinery
3.9 explain the checks to make to ensure the instructions have been understood and followed.

Learning outcome	The learner will:
4.	know how to monitor the quality of output from automated inserting equipment for newspapers and periodicals
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe a range of methods used to monitor the standard of output achieved
4.5	explain why it is important to clearly identify both good and bad copy on completion of the run
4.6	describe the company procedures for the removal of waste
4.7	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine makeready <input type="checkbox"/> running speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
5.	be able to monitor the quality of output from automated inserting equipment for newspapers and periodicals
Assessment criteria	
The learner can:	
5.1	operate the machine at the required production speeds maintaining quality of output
5.2	use recognised quality control methods to check output against the approved sample
5.3	produce the required number of good copies to meet customer/company requirements
5.4	identify the product which has met the approved standards
5.5	follow company and legal procedures to identify and remove waste
5.6	follow company procedures for completing production and quality assurance records.

Unit 316

Manage automated inserting equipment for newspapers and periodicals

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur, their causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, the company policy on availability and replacement of these.

UAN:	T/502/8574
Level:	Level 3
Credit value:	5
GLH:	22
Relationship to NOS:	This unit is linked to Proskills NOS Unit 246.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage foil blocking machinery. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output.

Learning outcome	The learner will:
1.	be able to make-ready the foil blocking machinery
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up foil blocking machinery so that: <ul style="list-style-type: none"> <input type="checkbox"/> the temperature is correct for the material to be blocked <input type="checkbox"/> material to be blocked is fed squarely, coming to the register against stops <input type="checkbox"/> the foil is fed evenly, to give minimum gap between impressions <input type="checkbox"/> images are clean, sharp and have overall solid colour density <input type="checkbox"/> images are accurately positioned on the material <input type="checkbox"/> subsequent colours are in register and fit with other colours <input type="checkbox"/> production times can be met
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output from foil blocking machinery
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of good copies, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage foil blocking machinery
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery
3.9	explain the checks to make to ensure the instructions have been

understood and followed.

Learning outcome	The learner will:
4. know how to monitor the quality of output from Foil Blocking machinery	
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe the quality control aids located on the printed copy to aid in the monitoring of production.
4.5	describe a range of methods used to monitor the standard of output achieved
4.6	explain why it is important to clearly identify both good and bad copy on completion of the run
4.7	describe the company procedures for the removal of waste
4.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine makeready <input type="checkbox"/> running speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
5. be able to monitor the quality of printed product from Foil Blocking machinery	
Assessment criteria	
The learner can:	
5.1	operate the machine at the required production speeds maintaining quality of output
5.2	use recognised quality control methods to check output against the approved sample
5.3	produce the required number of good copies to meet customer/company requirements
5.4	identify the product which has met the approved standards
5.5	follow company and legal procedures to identify and remove waste
5.6	follow company procedures for completing production and quality assurance records.

Unit 317 Manage foil blocking machinery

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur, their probable causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, the company policy on availability and replacement of these.

UAN:	F/502/8593
Level:	Level 3
Credit value:	9
GLH:	33
Relationship to NOS:	This unit is linked to Proskills NOS Unit 341.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage insetting-stitching-trimming machinery. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output.

Learning outcome	The learner will:
1.	be able to make-ready insetting-stitching-trimming machinery
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up the line so that, for example: <ul style="list-style-type: none"> <input type="checkbox"/> sections are inserted to give the correct page sequence <input type="checkbox"/> sections and covers are fed into the stitcher squarely and without damage <input type="checkbox"/> stitched books hold firmly, and are securely clenched <input type="checkbox"/> stitched books are fed into the trimmer squarely and without damage <input type="checkbox"/> books are trimmed evenly and squarely to the required size, without marking <input type="checkbox"/> books are delivered without damage or distortion <input type="checkbox"/> production times can be met
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output from insetting-stitching-trimming machinery
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of good copies, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage insetting-stitching-trimming machines
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery

3.9	explain the checks to make to ensure the instructions have been understood and followed.
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Learning outcome	The learner will:
4.	know how to monitor the quality of output from insetting, stitching, trimming machines
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe the quality control aids located on the printed copy to aid in the monitoring of production.
4.5	describe a range of methods used to monitor the standard of output achieved
4.6	explain why it is important to clearly identify both good and bad copy on completion of the run
4.7	describe the company procedures for the removal of waste
4.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine makeready <input type="checkbox"/> running speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
5.	be able to monitor the quality of output from insetting, stitching, trimming machines machinery
Assessment criteria	
The learner can:	
5.1	operate the machine at the required production speeds maintaining quality of output
5.2	use recognised quality control methods to check output against the approved sample
5.3	produce the required number of good copies to meet customer/company requirements
5.4	identify the product which has met the approved standards
5.5	follow company and legal procedures to identify and remove waste
5.6	follow company procedures for accurately recording production and quality assurance records.

Unit 318

Manage insetting-stitching-trimming machinery

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur, their causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, the company policy on availability and replacement of these.

UAN:	M/502/8623
Level:	Level 3
Credit value:	9
GLH:	26
Relationship to NOS:	This unit is linked to Proskills NOS Unit 331.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage guillotines They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output. Blade changing is also a key part of this unit.

Learning outcome	The learner will:
1.	be able to set/programme and run guillotines
Assessment criteria	
The learner can:	
1.1	obtain all details of the work required
1.2	identify and obtain the materials needed to meet the job specification
1.3	check that the guillotine and work area is safe and ready for production
1.4	follow manufacturers instruction to start up the guillotine
1.5	set up the guillotine taking into consideration: <ul style="list-style-type: none"> <input type="checkbox"/> the use of an existing programme or the need to create a programmed cutting sequence <input type="checkbox"/> the required cut size(s) is(are) produced with minimum handling <input type="checkbox"/> setting the back fence manually for each cut <input type="checkbox"/> production time
1.6	check output meets the company's quality standard, making appropriate adjustments, if the standard is not met
1.7	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output and quality from guillotine
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements.
2.3	ensure required number of good copies are produced, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage output from guillotines
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the product <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery
3.9	explain the checks to make to ensure the instructions have been

understood and followed.

Learning outcome	The learner will:
4.	be able to monitor the quality of output from the guillotine
Assessment criteria	
The learner can:	
4.1	operate the machine at the required production speeds maintaining quality of output
4.2	use recognised quality control methods to check output against the approved sample.
4.3	produce the required number of good copies to meet customer/company requirements
4.4	identify the product which has met the approved standards
4.5	follow company and legal procedures to identify and remove waste
4.6	follow company procedures for completing production and quality assurance records.

Learning outcome	The learner will:
5.	know how to monitor quality of guillotine cutting
Assessment criteria	
The learner can:	
5.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/variation
5.2	describe the purpose of achieving an approved copy
5.3	identify the items on the product to be monitored during production output
5.4	describe the quality control aids located on the printed copy to aid in the monitoring of production
5.5	describe methods used to monitor the standard of output achieved
5.6	explain why it is important to clearly identify both good and bad copy on completion of the run
5.7	describe the company procedures for the removal of waste
5.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine makeready <input type="checkbox"/> running speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
6.	know how to change guillotine blades and ancillary items
Assessment criteria	
The learner can:	
6.1	<p>explain the Manufacturer's procedure for changing guillotine blades and ancillary items to include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> tools required <input type="checkbox"/> PPE <input type="checkbox"/> process for dealing with used blades <input type="checkbox"/> recording procedures and information required
6.2	explain how to check that the machine is safe to operate, once blade changing has taken place.

Unit 319 Manage guillotines

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur, their causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, the company policy on availability and replacement of these.

AC5.5 – Candidates must describe at least **two** methods used to monitor standard of output achieved.

Unit 320

Manage mail processing machinery

UAN:	A/502/8589
Level:	Level 3
Credit value:	5
GLH:	22
Relationship to NOS:	This unit is linked to Proskills NOS Unit 370.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills.
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage mail processing machinery. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output

Learning outcome	The learner will:
1. be able to make-ready mail processing machinery	
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up mail processing machinery, so that, for example; <ul style="list-style-type: none"><input type="checkbox"/> material feeds squarely and centrally to the trimmer unit, when trimming is required<input type="checkbox"/> material is processed without damage or distortion<input type="checkbox"/> inserts are fed as required into the required envelopes<input type="checkbox"/> envelopes, carrier sheets or wrappings are coded accurately<input type="checkbox"/> an accurate count is maintained<input type="checkbox"/> production times can be met
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output from mail processing machinery
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of output, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage mail processing machinery
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources, for example: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery

3.9	explain the checks to make to ensure the instructions have been understood and followed.
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Learning outcome	The learner will:
4.	know how to monitor the quality of output from mail processing machinery
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/Variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe methods used to monitor the standard of output achieved
4.5	explain why it is important to clearly identify both good and bad copy on completion of the run
4.6	describe the company procedures for the removal of waste
4.7	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine make ready <input type="checkbox"/> running speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
5.	be able to monitor the quality of output from mail processing machinery
Assessment criteria	
The learner can:	
5.1	operate the machine at the required production speeds maintaining quality of output
5.2	use recognised quality control methods to check output against the approved sample
5.3	produce the required number of good copies to meet customer/company requirements
5.4	identify the product which has met the approved standards
5.5	follow company and legal procedures to identify and remove waste
5.6	follow company procedures for completing production and quality assurance records.

Unit 320 Manage mail processing machinery

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur, their causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, the company policy on availability and replacement of these.

AC4.4 – Candidates must describe at least **three** methods used to monitor the standard of output achieved.

UAN:	T/502/8560
Level:	Level 3
Credit value:	7
GLH:	26
Relationship to NOS:	This unit is linked to Proskills NOS Units 330 & 354.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage casing-in machinery. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output.

Learning outcome	The learner will:
1.	be able to make-ready casing-in machinery
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up casing-in machinery, so that the output will meet the job specification and the company quality standards
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage casing-in machinery
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of output, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste

2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage casing-in machinery
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources, for example: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery
3.9	explain the checks to make to ensure the instructions have been understood and followed.

Learning outcome	The learner will:
4.	know how to monitor the quality of output from mail processing machinery
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency

	<input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe methods used to monitor the standard of output achieved
4.5	explain why it is important to clearly identify both good and bad copy on completion of the run
4.6	describe the company procedures for the removal of waste
4.7	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine make ready <input type="checkbox"/> running speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
5.	be able to monitor the quality of output of product from the casing-in machinery
Assessment criteria	
The learner can:	
5.1	identify the features of the product for example: <ul style="list-style-type: none"> <input type="checkbox"/> folding positions <input type="checkbox"/> gluing <input type="checkbox"/> cutting <input type="checkbox"/> creasing
5.2	monitor that the output from the machine meets the job standard or sample
5.3	monitor the quality of the finishing process inline with company procedures and scheduling to include for example: <ul style="list-style-type: none"> <input type="checkbox"/> gluing <input type="checkbox"/> cutting <input type="checkbox"/> creasing <input type="checkbox"/> enhancing.

Unit 321 Manage casing-in machinery

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur, their causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, the company policy on availability and replacement of these.

AC4.4 – Candidates must describe at least **three** methods used to monitor the standard of output achieved.

UAN:	T/502/8557
Level:	Level 3
Credit value:	6
GLH:	25
Relationship to NOS:	This unit is linked to Proskills NOS Unit 329.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage case making machinery. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output.

Learning outcome	The learner will:
1.	be able to make-ready case making machinery
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up case making machinery correctly taking into consideration for example: <ul style="list-style-type: none"> <input type="checkbox"/> boards and hollows transfer from feeders squarely and evenly <input type="checkbox"/> grain direction <input type="checkbox"/> cover material transfers from the feeder squarely and evenly <input type="checkbox"/> glue is applied evenly at the correct temperature <input type="checkbox"/> cover material is turned in evenly and squarely onto boards <input type="checkbox"/> production times
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output from mail processing machinery
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of output, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage the case making machinery
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources, for example: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery

3.9	explain the checks to make to ensure the instructions have been understood and followed.
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Learning outcome	The learner will:
4.	know how to monitor the quality of output from case making machinery
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/Variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe the quality control aids located on the printed copy to aid in the monitoring of production
4.5	describe methods used to monitor the standard of output achieved
4.6	explain why it is important to clearly identify both good and bad copy on completion of the run
4.7	describe the company procedures for the removal of waste
4.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine make ready <input type="checkbox"/> running speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
5.	be able to monitor the quality of product from case-making machinery
Assessment criteria	
The learner can:	
5.1	operate the machine at the required production speeds maintaining quality of output
5.2	use recognised quality control methods to check output against the approved sample
5.3	produce the required number of good copies to meet customer/company requirements
5.4	identify the product which has met the approved standards
5.5	follow company and legal procedures to identify and remove waste
5.6	follow company procedures for completing production and quality assurance records.

Unit 322 Manage case making machinery

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur, their causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, the company policy on availability and replacement of these.

AC4.5 – Candidates must describe at least **three** methods used to monitor the standard of output achieved.

UAN:	F/502/8562
Level:	Level 3
Credit value:	8
GLH:	29
Relationship to NOS:	This unit is linked to Proskills NOS Unit 332.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage folding machinery. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output.

Learning outcome	The learner will:
1.	be able to make-ready the folding machinery
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up the laminator, so that: <ul style="list-style-type: none"> <input type="checkbox"/> laminating film is fed squarely on to the product <input type="checkbox"/> laminating takes place without marking, creasing or air bubbles <input type="checkbox"/> production times can be met
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output from the folding machinery
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of output, keeping spoiled material to a

	minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage mail processing machinery
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources, for example: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery
3.9	explain the checks to make to ensure the instructions have been understood and followed.

Learning outcome	The learner will:
4.	know how to monitor the quality of output from the folding machinery
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe the quality control aids located in the printed copy to aid in the monitoring of production
4.5	describe methods used to monitor the standard of output achieved
4.6	explain why it is important to clearly identify both good and bad copy on completion of the run
4.7	describe the company procedures for the removal of waste
4.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine make ready <input type="checkbox"/> running Speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
5.	be able to monitor the quality of printed product from the folding machinery
Assessment criteria	
The learner can:	
5.1	operate the machine at the required production speeds maintaining quality of output
5.2	use recognised quality control methods to check output against the approved sample
5.3	identify the product which has met the approved standards
5.4	follow company and legal procedures to identify and remove waste
5.5	follow company procedures for completing production and quality assurance records.

Unit 323 Manage folding machinery

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur, their causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, the company policy on availability and replacement of these.

AC4.5 – Candidates must describe at least **three** methods used to monitor the standard of output achieved.

Unit 324

Manage auto-fed sewing machinery

UAN:	R/502/8565
Level:	Level 3
Credit value:	7
GLH:	26
Relationship to NOS:	This unit is linked to Proskills NOS Unit 265.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage auto-fed sewing machinery. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output

Learning outcome	The learner will:
1.	be able to make-ready auto-fed sewing machinery
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set up the sewing machine, so that: <ul style="list-style-type: none"><input type="checkbox"/> the feeder locates the centre of each section<input type="checkbox"/> sections are fed squarely and without damage into the sewing machine<input type="checkbox"/> sewing positions are spaced across spines within the finished trim size<input type="checkbox"/> sewing holds sections securely without damage or distortion<input type="checkbox"/> sewn book blocks are delivered without damage<input type="checkbox"/> production times can be met
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output from auto-fed sewing machinery
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of good copies, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage auto-fed sewing machinery
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery
3.9	explain the checks to make to ensure the instructions have been

understood and followed.

Learning outcome	The learner will:
4. know how to monitor the quality of output from auto-fed sewing machinery	
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"><input type="checkbox"/> frequency<input type="checkbox"/> type of checks<input type="checkbox"/> viewing conditions<input type="checkbox"/> quality control aids/devices<input type="checkbox"/> acceptable tolerances/Variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe the quality control aids located on the printed copy to aid in the monitoring of production.
4.5	describe methods used to monitor the standard of output achieved
4.6	explain why it is important to clearly identify both good and bad copy on completion of the run
4.7	describe the company procedures for the removal of waste
4.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"><input type="checkbox"/> machine make ready<input type="checkbox"/> running speeds<input type="checkbox"/> production time<input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
5. be able to monitor the quality of product from auto-fed sewing machinery	
Assessment criteria	
The learner can:	
5.1	operate the machine at the required production speeds maintaining quality of output
5.2	use recognised quality control methods to check output against the approved sample
5.3	produce the required number of good copies to meet customer/company requirements
5.4	identify the product which has met the approved standards
5.5	follow company and legal procedures to identify and remove waste
5.6	follow company procedures for completing production and quality assurance records.

Unit 324 Manage auto-fed sewing machinery

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur, their causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, the company policy on availability and replacement of these.

AC4.5 – Candidates must describe at least **three** methods used to monitor the standard of output achieved.

Unit 325

Manage carton enhancing machinery

UAN:	L/502/8581
Level:	Level 3
Credit value:	7
GLH:	26
Relationship to NOS:	This unit is linked to Proskills NOS Unit 362.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to manage Carton Enhancing machinery. They will be expected to control the equipment whilst running production jobs and know how to instruct others and monitor the quality of output.

Learning outcome	The learner will:
1. be able to make-ready carton enhancing machinery	
Assessment criteria	
The learner can:	
1.1	obtain and check the job specification
1.2	identify and obtain the materials required for the job
1.3	ensure the working environment is safe for production
1.4	set the carton enhancing machinery to meet the job specification taking into consideration, for example: <ul style="list-style-type: none"><input type="checkbox"/> material is fed squarely and consistently, without damage or distortion<input type="checkbox"/> enhancements are made in the correct position on the material<input type="checkbox"/> the finished product is free from unacceptable creasing, marking or distortion<input type="checkbox"/> production times
1.5	ensure the output meets the job specifications and company quality standard prior to full production
1.6	obtain an approved sample of the product being produced.

Learning outcome	The learner will:
2.	be able to manage output from carton enhancing machinery
Assessment criteria	
The learner can:	
2.1	run and monitor production machines at the optimum speed, with minimum downtime and to the required quality standard
2.2	carry out checks in line with company procedures that the output matches the job requirements
2.3	run the required number of good copies, keeping spoiled material to a minimum
2.4	follow the company procedures for the removal of waste
2.5	record the production and quality assurance details following company procedures
2.6	ensure the output is prepared for the next stage in the process, in accordance with company procedures.

Learning outcome	The learner will:
3.	know how to manage carton enhancing machinery
Assessment criteria	
The learner can:	
3.1	describe the principles of the process being managed
3.2	explain the responsibilities in regards of time and resources: <ul style="list-style-type: none"> <input type="checkbox"/> the different types of resource, including labour, materials, machinery <input type="checkbox"/> the relationship between resource usage and profitability <input type="checkbox"/> how to maximise productivity
3.3	describe problems that can occur when managing production machines, their probable causes and possible solutions for example a problem that could: <ul style="list-style-type: none"> <input type="checkbox"/> affect the quality of the image <input type="checkbox"/> reduce the rate of output <input type="checkbox"/> affect Health and Safety
3.4	explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate
3.5	explain how and when to make adjustments to the machine settings to achieve the required job specification and quality standards
3.6	identify machine parts that may require replacing and explain the company policy on the availability and replacement of these
3.7	explain the company administrative procedures, for example: <ul style="list-style-type: none"> <input type="checkbox"/> scheduling <input type="checkbox"/> recording and reporting <input type="checkbox"/> product labelling <input type="checkbox"/> reporting faults and production downtime
3.8	explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery
3.9	explain the checks to make to ensure the instructions have been

understood and followed.

Learning outcome	The learner will:
4.	know how to monitor the quality of output from carton enhancing machines
Assessment criteria	
The learner can:	
4.1	explain the company procedures for monitoring the quality of output. To include: <ul style="list-style-type: none"> <input type="checkbox"/> frequency <input type="checkbox"/> type of checks <input type="checkbox"/> viewing conditions <input type="checkbox"/> quality control aids/devices <input type="checkbox"/> acceptable tolerances/variation
4.2	describe the purpose of achieving an approved copy
4.3	identify the items on the product to be monitored during production output
4.4	describe the quality control aids located on the printed copy to aid in the monitoring of production.
4.5	describe methods used to monitor the standard of output achieved
4.6	explain why it is important to clearly identify both good and bad copy on completion of the run
4.7	describe the company procedures for the removal of waste
4.8	explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> <input type="checkbox"/> machine makeready <input type="checkbox"/> running speeds <input type="checkbox"/> production time <input type="checkbox"/> downtime in production.

Learning outcome	The learner will:
5.	be able to monitor the quality of product from carton enhancing machinery
Assessment criteria	
The learner can:	
5.1	operate the machine at the required production speeds maintaining quality of output
5.2	use recognised quality control methods to check output against the approved sample
5.3	produce the required number of good copies to meet customer/company requirements
5.4	identify the product which has met the approved standards
5.5	follow company and legal procedures to identify and remove waste
5.6	follow company procedures for completing production and quality assurance records.

Unit 325 Manage carton enhancing machinery

Supporting information

Guidance

AC3.3 – Candidates must describe at least **three** problems that can occur, their causes and possible solutions.

AC3.6 – Candidates must identify at least **three** machine parts that may need replacing, the company policy on availability and replacement of these.

AC4.5 – Candidates must describe at least **three** methods used to monitor the standard of output achieved.

UAN:	A/502/8558
Level:	Level 3
Credit value:	7
GLH:	28
Relationship to NOS:	This unit is linked to Proskills NOS Unit 711.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	<p>The aim of this unit is to provide the learner with the knowledge and skills to be able to create digital colour artwork for printing using software such as desk top publishing, word processing, electronic page assembly or graphics illustration.</p> <p>The unit requires working to instructions to produce artwork that is correctly set and configured for printing to correct standards.</p> <p>It requires the use of text and images to create artwork that is fit for purpose.</p>

Learning outcome	The learner will:
1.	be able to agree a design specification for digital artwork for print
Assessment criteria	
The learner can:	
1.1	establish from the customer and any other appropriate person(s) the proposed specification for the artwork
1.2	establish the creative or stylistic needs for the artwork in order to satisfy its intended audience, use and/or application
1.3	propose a design specification that meets the requirements identified, including those relating to print production and printed product use
1.4	amend proposals in response to any comments from the customer ensuring it meets customer requirements
1.5	agree realistic timescales with the customer for the production of the artwork
1.6	maintain records of the agreed design and product specifications in accordance with company guidelines.

Learning outcome	The learner will:
2.	be able to produce creative digital colour artwork
Assessment criteria	
The learner can:	
2.1	identify the sequence of tasks that will be required to produce the artwork
2.2	identify and/or locate digital files that will be used in production of the artwork, including any text, database, spreadsheet or image files
2.3	identify other source material that will be required, such as photography, scanning or copy-writing
2.4	ensure tasks which require input from colleagues or external sources are coordinated in order to meet the agreed timescale for production
2.5	confirm that digital files for use in the artwork are in a suitable format and convert or use appropriate import filters to bring the files into the artwork layout software, retaining original formatting
2.6	identify the software applications suitable to carry out the tasks
2.7	produce creative colour artwork that meets the agreed design specification
2.8	format typographical elements within the job
2.9	make sure that charts or tables are formatted in accordance with job requirements
2.10	make sure that line-art or bitmap images are of sufficient quality for the document use having the correct resolution and colour space
2.11	make sure that all the colours used in the document are consistent with the intended printing method
2.12	save the digital files securely using an archiving/indexing system
2.13	submit an approved colour proof to the customer.

Learning outcome	The learner will:
3.	be able to amend digital colour artwork as required to meet customer and product specification
Assessment criteria	
The learner can:	
3.1	assess the extent of corrections, amendments and stylistic changes made by the customer to ensure they can be achieved
3.2	interpret typographic corrections indicated by readers and copy preparation marks
3.3	seek clarification or advice from the customer where requirements are unclear or unable to be effected
3.4	label and archive digital files in accordance with company procedures after amendments have been made
3.5	submit the finished digital artwork for printing in the format required by the prepress/printer.

Learning outcome	The learner will:
4. know how to design and produce creative digital colour artwork for print	
Assessment criteria	
The learner can:	
4.1	explain how to ensure the safe handling of customer material as required by their company
4.2	state the requirements for security and storage within their company for: <ul style="list-style-type: none"> <input type="checkbox"/> computer system security and virus protection <input type="checkbox"/> print with time-sensitive or restricted release dates <input type="checkbox"/> high value products or print with a high risk of theft <input type="checkbox"/> secure means of archiving digital and conventional artwork
4.3	identify the reasons for selecting one printing process over another and the effects on artwork production.
4.4	describe the effects on a company/department of not managing time and resources carefully during production
4.5	identify a range of hardware and software used to produce artwork for print and the limiting factors.
4.6	interpret the terminology used within typography, artwork and design to include: <ul style="list-style-type: none"> <input type="checkbox"/> fonts <input type="checkbox"/> proof <input type="checkbox"/> layout <input type="checkbox"/> specification <input type="checkbox"/> imposition
4.7	explain how digital artwork and design can be affected by: <ul style="list-style-type: none"> <input type="checkbox"/> sources of original material, eg photographers and graphic artists <input type="checkbox"/> colour theory <input type="checkbox"/> the relationship between image size, file size and resolution <input type="checkbox"/> file formats for digital images <input type="checkbox"/> page layout <input type="checkbox"/> limitations of the output device for print
4.8	identify the main choices of colour mode for use in Digital printing
4.9	state steps that can be taken to reduce the risk of unexpected differences between screen colour and printed colour
4.10	explain the term 'registration'
4.11	explain the meaning of the following terms: <ul style="list-style-type: none"> <input type="checkbox"/> trapping <input type="checkbox"/> knockout <input type="checkbox"/> overprint
4.12	state how to deal with digital files in relation to the following: <ul style="list-style-type: none"> <input type="checkbox"/> dealing with embedded information <input type="checkbox"/> file management <input type="checkbox"/> file conversion techniques <input type="checkbox"/> the transmission of digital files
4.13	describe the company administrative procedures to include:

- ☐ planning
- ☐ scheduling
- ☐ recording and reporting
- ☐ product labelling

- 4.14 identify the key items which should be considered when monitoring quality during artwork production
- 4.15 describe the range of proofs in use and their role in the printing process and the limiting factors and list the sequence of proof verification
- 4.16 explain the type of information to provide to a customer in respect of limitations of a proof supplied and why this is important
- 4.17 describe the advantages of using low resolution PDF files as proofs
- 4.18 explain why it is important to get auditable approval from a customer before handing the job over to further stages of production
- 4.19 explain why it is important customers are made aware of any additional costs likely to be incurred as a result of changes outside the original contract and explain when and how this should be done in line with organisational procedures
- 4.20 explain the organisational procedures for making corrections or amendments required by a customer.

Unit 326 Design and produce creative digital colour artwork for print

Supporting information

Guidance

AC4.9 – Candidates must state at least **two** steps that can be taken to reduce the risk of unexpected difference between screen colour and printed colour.

UAN:	M/502/8511
Level:	Level 3
Credit value:	4
GLH:	15
Relationship to NOS:	This unit is linked to Proskills NOS Unit 127.
Endorsement by a sector or regulatory body:	This unit is endorsed by Proskills
Aim:	The aim of this unit is to provide the learner with the knowledge and skills to edit digital images. It covers the process of retrieving, editing, converting and archiving for production output.

Learning outcome	The learner will:
1.	be able to decide on the imaging approach
Assessment criteria	
The learner can:	
1.1	ensure all elements of the job are available, eg photos (digital or original)
1.2	select the hardware and software most suitable for the editing they intend to carry out
1.3	check the compatibility of the elements to be combined in the editing process and decide how to treat any elements that are not compatible.

Learning outcome	The learner will:
2.	be able to produce edited images
Assessment criteria	
The learner can:	
2.1	import the required image elements into the editing software
2.2	produce edited images to suit the requirements of the job
2.3	produce edited images which are accurate in terms of the following:
	<input type="checkbox"/> physical size
	<input type="checkbox"/> file size
	<input type="checkbox"/> content
	<input type="checkbox"/> colour
	<input type="checkbox"/> sharpness
	<input type="checkbox"/> brightness (exposure)

	<input type="checkbox"/> contrast <input type="checkbox"/> colour space — RGB, CMYK and greyscale <input type="checkbox"/> output resolution
2.4	check the content and quality of the edited images against customer requirements and workplace standards
2.5	take action to make customer amendments
2.6	maintain the confidentiality of customer material
2.7	save the edited image data files in the required / appropriate format.

Learning outcome	The learner will:
3.	know how to plan and produce edited images
Assessment criteria	
The learner can:	
3.1	explain their understanding of the law as it affects printing in relation to: <ul style="list-style-type: none"> <input type="checkbox"/> copyright and ownership of Images <input type="checkbox"/> obscenity <input type="checkbox"/> forgery
3.2	describe the Ethical Issues relevant in printing
3.3	describe how to ensure the safe handling of customer material as required by their company
3.4	state the requirements for Security & Storage within their company for: <ul style="list-style-type: none"> <input type="checkbox"/> high value products or print with a high risk of theft <input type="checkbox"/> secure means of archiving digital and conventional prints
3.5	state company procedures for communicating with customers
3.6	describe workplace policy and practice in relation to the following: <ul style="list-style-type: none"> <input type="checkbox"/> standards <input type="checkbox"/> procedures
3.7	describe the operation of image editing equipment and software
3.8	describe the key factors which affect digital imaging, to include: <ul style="list-style-type: none"> <input type="checkbox"/> sources of original material, eg photographers and graphics artists <input type="checkbox"/> colour theory, eg: additive and subtractive systems such as RGB and CMYK; colour gamuts <input type="checkbox"/> compatibility in digital images <input type="checkbox"/> the relationship between image size, file size and resolution <input type="checkbox"/> file formats for digital images - the differences between them and the reasons for using them
3.9	describe how to deal with digital files in relation to the following: <ul style="list-style-type: none"> <input type="checkbox"/> file conversion techniques <input type="checkbox"/> file compression and decompression systems <input type="checkbox"/> file management



Appendix 1 Relationships to other qualifications

Links to other qualifications

Centres are responsible for checking the different requirements of all qualifications they are delivering and ensuring that candidates meet requirements of all units/qualifications.

These qualifications have connections to the:

- ☐ Level 3 NVQ in Printing (5158)

Literacy, language, numeracy and ICT skills development

These qualifications can develop skills that can be used in the following qualifications:

- ☐ Functional Skills (England) – see www.cityandguilds.com/functionalskills
- ☐ Essential Skills (Northern Ireland) – see www.cityandguilds.com/essentialskillsni
- ☐ Essential Skills Wales – see www.cityandguilds.com/esw



Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on www.cityandguilds.com.

Centre manual - Supporting Customer Excellence contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document includes sections on:

- ☐ The centre and qualification approval process
- ☐ Assessment, internal quality assurance and examination roles at the centre
- ☐ Registration and certification of candidates
- ☐ Non-compliance
- ☐ Complaints and appeals
- ☐ Equal opportunities
- ☐ data protection
- ☐ Management systems
- ☐ Maintaining records
- ☐ Assessment
- ☐ Internal quality assurance
- ☐ External quality assurance.

Our Quality Assurance Requirements encompasses all of the relevant requirements of key regulatory documents such as:

- ☐ SQA Awarding Body Criteria (2007)
- ☐ NVQ Code of Practice (2006)

and sets out the criteria that centres should adhere to pre and post centre and qualification approval.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **centre homepage** section of the City & Guilds website also contains useful information such on such things as:

- ☐ **Walled Garden:** how to register and certificate candidates on line
- ☐ **Events:** dates and information on the latest Centre events
- ☐ **Online assessment:** how to register for e-assessments.

Useful contacts

UK learners General qualification information	T: +44 (0)844 543 0033 E: learnersupport@cityandguilds.com
International learners General qualification information	T: +44 (0)844 543 0033 F: +44 (0)20 7294 2413 E: intcg@cityandguilds.com
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: centresupport@cityandguilds.com
Single subject qualifications Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 F: +44 (0)20 7294 2404 (BB forms) E: singlesubjects@cityandguilds.com
International awards Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: intops@cityandguilds.com
Walled Garden Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: walledgarden@cityandguilds.com
Employer Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	T: +44 (0)121 503 8993 E: business@cityandguilds.com
Publications Logbooks, Centre documents, Forms, Free literature	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413

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