

Entry 3 Skills for Working Life (4807-03)

August 2014 Version 1.0



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**Unit recording documents for
Metalwork (Units 396-400)**

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METALWORK E3

396 Continued

					<ul style="list-style-type: none"> Repeat the operation until the required number of holes have been drilled for each of the three metals.
					<ul style="list-style-type: none"> Clean and store equipment safely
					<ul style="list-style-type: none"> Dispose of waste correctly
					<ul style="list-style-type: none"> Clean and tidy up work area
					<ul style="list-style-type: none"> Clean and store personal protective clothing
					<ul style="list-style-type: none"> Wash and dry hands
Knowledge Evidence (<i>evidence of answers given to be recorded in portfolio</i>)					
					<ul style="list-style-type: none"> A reason for choosing the correct size drill bit
					<ul style="list-style-type: none"> A reason for securing the material to be drilled correctly
					<ul style="list-style-type: none"> A reason for making sure that the drill bit is correctly secured in the chuck
					<ul style="list-style-type: none"> A reason for not having too fast a drill speed
					<ul style="list-style-type: none"> A reason for drilling a 'pilot' hole
					<ul style="list-style-type: none"> A reason for 'pop' marking material with a centre punch
DECLARATION – The Learning Outcome has been achieved by satisfactory performance of all the components listed above					
Date all assessments completed for this unit:					
Name of Assessor		Signature of Assessor		Name of Learner	

METALWORK E3

Unit no: **397** Unit title: **Join metals** Credit value: **2**

Guidance: The holes required for using the fixings can be done as part of unit 510. Pictures can be used for the recognition part of this unit.

Learning Outcome:

- The learner will be able to join **two** metal surfaces using **one** method correctly and safely

Assessor Initials/Date				

E M

Practical evidence				
				<ul style="list-style-type: none"> Choose and wear personal protective clothing
				<ul style="list-style-type: none"> Recognise metals to be joined (<i>state which were used</i>)
				Metals: <ul style="list-style-type: none"> Mild steel sheet Mild steel flat bar Aluminium sheet Copper sheet
				<ul style="list-style-type: none"> Recognise four different fixings:
				- self tapping screws
				- nuts, bolts and washers
				- rivets
				- 'pop' rivets
				<ul style="list-style-type: none"> Recognise and collect the appropriate tools and equipment (<i>indicate which ones were used</i>)
				Tools and equipment: <ul style="list-style-type: none"> engineers hammer spanners of appropriate sizes screwdriver (appropriate type) 'pop' riveter riveting punch or set anvil
				<ul style="list-style-type: none"> Check that tools and equipment are safe to use
				<ul style="list-style-type: none"> Drill holes in metal surfaces to be joined and check diameter
				<ul style="list-style-type: none"> Choose correct size of fixing items to be used
				<ul style="list-style-type: none"> Join the two surfaces using correct method
				<ul style="list-style-type: none"> Check that the joined surfaces are secure
				<ul style="list-style-type: none"> Clean and store equipment safely
				<ul style="list-style-type: none"> Clean and tidy up work area
				<ul style="list-style-type: none"> Clean and store personal protective clothing
				<ul style="list-style-type: none"> Wash and dry hands

Continued.....

METALWORK E3

397 Continued

Knowledge Evidence (<i>evidence of answers given to be recorded in portfolio</i>)			
	• A reason for joining materials using different methods		
	• A reason for checking that holes drilled are of the correct size		
	• A reason for choosing the correct size of joining item		
DECLARATION – The Learning Outcome has been achieved by satisfactory performance of all the components listed above			
Date all assessments completed for this unit:			
Name of Assessor	Signature of Assessor	Name of Learner	Signature of Learner

METALWORK E3

Unit no: 398	Unit title: Join metals by soldering	Credit value: 2
<p>Guidance: For this unit any type of metal can be used provided it can be effectively soldered. Pictures can be used for the recognition part of the unit.</p>		
Learning Outcome:	<ul style="list-style-type: none"> The learner will be able to join metal by soldering correctly and safely 	
Assessor Initials/Date		E M
Practical evidence		
		<ul style="list-style-type: none"> Choose and wear personal protective clothing
		<ul style="list-style-type: none"> Recognise all of the following tools and equipment:
		- emery cloth
		- solder
		- flux (paste or liquid)
		- pliers
		- soldering iron (gas or electric heated)
		- self gripping wrench
		<ul style="list-style-type: none"> Check that tools and equipment are safe to use
		<ul style="list-style-type: none"> Clean and prepare metal surfaces to be joined
		<ul style="list-style-type: none"> Heat the soldering iron by the appropriate method
		<ul style="list-style-type: none"> Apply flux to the prepared surfaces
		<ul style="list-style-type: none"> Check that the soldering iron is sufficiently hot
		<ul style="list-style-type: none"> Solder the two surfaces using the correct method
		<ul style="list-style-type: none"> Allow the surfaces to cool before being moved
		<ul style="list-style-type: none"> Place hot soldering iron in appropriate place to cool
		<ul style="list-style-type: none"> Check that surfaces are soldered securely
		<ul style="list-style-type: none"> Clean and store equipment safely
		<ul style="list-style-type: none"> Clean and tidy up work area
		<ul style="list-style-type: none"> Remove and store personal protective clothing
		<ul style="list-style-type: none"> Wash and dry hands
Knowledge Evidence (<i>evidence of answers given to be recorded in portfolio</i>)		
		<ul style="list-style-type: none"> A reason for cleaning surfaces to be soldered
		<ul style="list-style-type: none"> A reason for using flux
		<ul style="list-style-type: none"> A reason for checking that the soldering iron is sufficiently hot
		<ul style="list-style-type: none"> A reason for allowing the surfaces to cool before being moved

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METALWORK E3

398 Continued

DECLARATION- The Learning Outcome has been achieved by satisfactory performance of all the components listed above			
Date all assessments completed for this unit:			
Name of Assessor	Signature of Assessor	Name of Learner	Signature of Learner

METALWORK E3

Unit no: **399** Unit title: **Prepare a metal surface for treatment** Credit value: **2**

Guidance: For this unit any metalwork that requires preparation for painting or other treatment may be used. The learner should use the range of tools to prepare the metal.

Learning Outcome: • The learner will be able to prepare a metal surface for treatment correctly and safely

Assessor Initials/Date				



Practical evidence

					• Choose and wear personal protective clothing
					• Recognise all of the following hand tools:
					- scraper
					- wire brush
					- glass paper/wet and dry paper
					- electric drill with wire brush attachment
					• Recognise all of the following materials:
					- abrasive cloth/wire wool
					- chemical preparation materials
					• Recognise metal surfaces to be prepared
					• Check that tools and equipment are safe to use
					• Use each tool to prepare the metal surface
					• Secure item to be prepared correctly as appropriate
					• Clean and prepare metal surface as appropriate
					• Clean tools after use correctly
					• Store tools safely
					• Clean and tidy up work area
					• Remove and store personal protective clothing
					• Wash and dry hands

Knowledge evidence *(evidence of answers given to be recorded in portfolio)*

	• A reason for checking that tools and equipment are safe to use
	• A reason for preparing surface for treatment
	• A reason for securing item to be prepared
	• A reason for cleaning tools after use

Continued.....

METALWORK E3

399 Continued

DECLARATION- The Learning Outcome has been achieved by satisfactory performance of all the components listed above			
Date all assessments completed for this unit:			
Name of Assessor	Signature of Assessor	Name of Learner	Signature of Learner

METALWORK E3

Unit no: **400** Unit title: **Treat a metal surface** Credit value: **2**

Guidance: The metalwork prepared in unit 513 can be used or an alternative suitably prepared piece. The tutor should assist the learner in selecting the appropriate treatment.

Learning Outcome: • The learner will be able to treat a metal surface correctly and safely

Assessor Initials/Date				



Practical evidence

					• Choose and wear personal protective clothing
					• Recognise all of the following hand tools and materials:
					- brushes
					- rust preventatives
					- primer
					- undercoat
					- top coat
					• Recognise the surface to be treated
					• Ensure that the surface to be treated is:
					- clean
					- dry
					- free from contaminants (<i>oil and greases</i>)
					- free from loose material
					• Check that brushes are safe to use
					• Secure item to be treated correctly as appropriate
					• Apply surface treatment material correctly as appropriate
					• Follow instructions for application correctly
					• Clean brushes after use correctly
					• Dry and store brushes safely
					• Dispose of surplus materials correctly
					• Dispose of waste materials safely
					• Clean and tidy up work area
					• Remove and store personal protective clothing
					• Wash and dry hands

Continued.....

METALWORK E3

400 Continued

Knowledge evidence (<i>evidence of answers given to be recorded in portfolio</i>)			
		• A reason for treating a surface	
		• A reason for ensuring that surface is free from contaminants	
		• A reason for cleaning brushes correctly	
		• A reason for disposing of waste material safely	
DECLARATION – The Learning Outcome has been achieved by satisfactory performance of all the components listed above			
Date all assessments completed for this unit:			
Name of Assessor	Signature of Assessor	Name of Learner	Signature of Learner

Appendix 1 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:

- Regulatory Arrangements for the Qualifications and Credit Framework (2008)
- 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 on such things as:

- **Walled Garden:** how to register and certificate candidates on line
- **Qualifications and Credit Framework** : general guidance about the and how qualifications will change, as well as information on the IT systems needed and FAQs
- **Events:** dates and information on the latest Centre events
- **Online assessment:** how to register for e-assessments.

Useful contacts

UK learners General qualification	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
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials,	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	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	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,	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: walledgarden@cityandguilds.com
Employer Employer solutions, Mapping, Accreditation, Development Skills,	T: +44 (0)121 503 8993 E: business@cityandguilds.com
Publications Logbooks, Centre documents,	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413

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