



Regulated Qualifications Unit and Assessment Specification

Unit title	Preparing and Mixing Concrete and Mortars in the Workplace
Regulator unit code	K/503/9457
SQA unit code	H5YJ 81
SSC Ref	VR 36v2

History of changes

Publication date: November 2013

Version: 02 (July 2017)

Version number	Date	Description	Authorised by
02	July 2017	Unit Specification updated to reflect current Ofqual terminology	Qualifications Officer

© Scottish Qualifications Authority 2013

This publication may be reproduced in whole or in part for educational purposes provided that no profit is derived from reproduction and that, if reproduced in part, the source is acknowledged.

Regulated Qualifications Unit specification

Title:	Preparing and Mixing Concrete and Mortars in the Workplace	
Level:	1	
Credit value:	8	
Learning Outcomes <i>The learner will be able to:</i>	Assessment Criteria <i>The learner can:</i>	
1 Know how to comply with relevant legislation and official guidance when preparing and mixing concrete and mortars.	1.1	Describe the different types of relevant information used with the method/procedure to prepare and mix concrete and mortars.
	1.2	Describe their responsibilities regarding potential accidents and health hazards, whilst working: <ul style="list-style-type: none"> ◆ in the workplace, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting
	1.3	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.
	1.4	State what the accident reporting procedures are and who is responsible for making reports.
2 Maintain safe and healthy working practices when preparing and mixing concrete and mortars.	2.1	Use health and safety control equipment safely to carry out the activity in accordance with current legislation and organisational requirements when preparing and mixing concrete and mortars.
	2.2	Comply with information relating to specific risks to health when preparing and mixing concrete and mortars.
	2.3	State why and when health and safety control equipment, identified by the principles of protection, should be used, relating to preparing and mixing concrete and mortars, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> ◆ collective protective measures ◆ personal protective equipment (PPE) ◆ respiratory protective equipment (RPE) ◆ local exhaust ventilation (LEV)
	2.4	Describe how the relevant health and safety control equipment should be used in accordance with the given instructions.
	2.5	State how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards.

Title:		Preparing and Mixing Concrete and Mortars in the Workplace	
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>	
3	Select the required quantity and quality of resources for the methods of work to prepare and mix concrete and mortars.	3.1	Select resources associated with own work in relation to materials, components, tools and equipment.
		3.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> ◆ aggregate, sand, lime, cement, water, additives ◆ hand tools and mixing plant and equipment
		3.3	State how the resources should be used correctly.
		3.4	State how any problems associated with the resources are reported.
		3.5	Outline any potential hazards associated with the resources and methods of work.
		3.6	Describe how to calculate quantity, volume and wastage associated with the method/procedure to prepare and mix concrete and mortars.
4	Minimise the risk of damage to the work and surrounding area when preparing and mixing concrete and mortars.	4.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
		4.2	Minimise damage and maintain a clean work space.
		4.3	Dispose of waste in accordance with current legislation.
		4.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
		4.5	State why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.
5	Complete the work within the allocated time when preparing and mixing concrete and mortars.	5.1	Demonstrate completion of the work within the allocated time.
		5.2	State the purpose of the work programme.
		5.3	State why deadlines should be kept in relation to agreed start and finish times.

Title:	Preparing and Mixing Concrete and Mortars in the Workplace	
Learning Outcomes <i>The learner will be able to:</i>	Assessment Criteria <i>The learner can:</i>	
6 Comply with the given contract information to prepare and mix concrete and mortars to the required specification.	6.1	Demonstrate the following work skills when preparing and mixing concrete and mortars: <ul style="list-style-type: none"> ◆ gauging and mixing
	6.2	Gauge and mix mortars and/or concrete to given working instructions.
	6.3	Safely use materials, hand tools, mixing plant and equipment and ancillary equipment.
	6.4	Safely store the materials, tools and equipment used when preparing and mixing concrete and mortars.
	6.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: <ul style="list-style-type: none"> ◆ gauge and mix concrete and mortars by hand and mixer ◆ carry out pre-use checks on mechanical mixers ◆ use hand tools, mixing plant and equipment ◆ work with plant and machinery
	6.6	State the needs of other occupations and how to effectively communicate within a team when preparing and mixing concrete and mortars.
	6.7	Describe how to maintain the tools and equipment used when preparing and mixing concrete and mortars.

Title:	Preparing and Mixing Concrete and Mortars in the Workplace
Additional information about this unit	
Purpose and aim of unit	The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and mixing concrete and mortars in the workplace within the relevant sector of industry.
Unit start date	01 November 2013
Details of the relationship between the Unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	This Unit is based on the National Occupational Standard 'Prepare and Mix Concrete and Mortars' (VR 36v2)
Assessment requirements or guidance specified by a sector or regulatory body (if appropriate)	<p>This unit must be assessed in a work environment, in accordance with:</p> <ul style="list-style-type: none"> ◆ the Additional Requirements for Qualifications using the title NVQ in QCF ◆ the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment <p>Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Support for the unit from a sector skills council or other appropriate body (if required)	ConstructionSkills
Location of the unit within the subject/sector classification system	05.2 Building and Construction
Name of the organisation submitting the unit	ConstructionSkills
Credit value	8
Guided Learning Hours	27

Regulated Qualifications Assessment specification

Assessment (evidence) requirements

The evidence requirements for this unit are shown in the main body of the unit under the section titled 'Assessment requirements or guidance specified by a sector or regulatory body'.

Guidance on instruments of assessment

Occupational skills (OS) unit

This unit is designed to assess the skills of learners in the workplace. Observation of learner performance can only be carried out on-the-job and should always be the primary and preferred source of evidence of competent performance.

Collection of supplementary evidence of performance can be used to further substantiate, support and expand the evidence base for competent performance where this is necessary. This may arise in situations where evidence from direct observation of the learners on-the-job is deemed insufficient to fully meet the required standards. Supplementary evidence may include:

- ◆ witness testimony
- ◆ questioning,
- ◆ professional discussion,
- ◆ product and photographic evidence,
- ◆ relevant active documentation, reports, presentations and
- ◆ other valid evidence which relates directly to learner performance on-the-job.

SQA's Guide to Assessment is designed to provide support for everyone who assesses for SQA qualifications. It looks at the principles of assessment, and brings together information on assessment in general as well as on best practice in assessment. The Guide to Assessment can be downloaded free from SQA's website www.sqa.org.uk