



Regulated Qualifications Unit and Assessment Specification

Unit title	Application of Techniques for the Design of Products
Regulator unit code	F/601/6437
SQA unit code	H84K 62
SSC Ref	DES44

History of changes

Publication date: July 2016

Version: 02 (October 2017)

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

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Regulated qualifications unit specification

Title	Application of Techniques for the Design of Products	
Level	2	
Credit value	3	
Learning outcomes	Assessment criteria	
The learner will:	The learner can:	
1 Understand the formal elements and principles of design.	1.1 Give examples of how formal elements and principles of: <ul style="list-style-type: none"> ◆ balance ◆ proportion ◆ rhythm ◆ emphasis ◆ unity are applied in the design of products.	1.2 Describe how formal elements and principles of design are visible in the work of two major designers.
2 Know about common techniques, materials, tools and equipment and their application to design and manufacture.	2.1 Describe a range of common techniques, materials, used in design and manufacture.	2.2 Give examples of common tools and equipment used in design.
	2.3 Describe the physical properties and capabilities of a range of materials, tools and equipment used in design.	2.4 Describe the characteristics of different materials and the potential of these characteristics to achieve different effects.
3 Adopt the preferred approach based on the requirements of the brief.	3.1 Document the planned design approach.	3.2 Use a selected technique make a product, prototype or sample ensuring consistency with the selected approach and the brief.
	3.3 Present the designed product, prototype or model in accordance with the brief specifications.	

Additional information about the unit
Unit purpose and aim(s)
This unit describes the skills and knowledge required to research and apply techniques for design. The nature of the end products may vary greatly. The focus of the unit is on researching and experimenting with the design techniques for products including research of materials, and use of appropriate technology.
Unit start date
01/11/14
Details of the relationship between the unit and relevant national occupational standards (if appropriate)
N/A
Details of the relationship between the unit and other standards or curricula (if appropriate)
N/A
Assessment requirements specified by a sector or regulatory body (if appropriate)
Creative and cultural skills overarching assessment principles
Endorsement of the unit by a sector or other appropriate body (if required)
N/A
Location of the unit within the subject/sector classification system
9.2 Crafts, Creative Arts and Design
Name of the organisation submitting the unit
SQA
Guided Learning Hours
21

Regulated qualifications assessment specification

Assessment (evidence) requirements

Assessors must ensure that learners provide evidence to cover all the learning outcomes and assessment criteria.

This unit is designed to assess the skills of learners in the workplace. Evidence of occupational competence should be generated and collected through performance in workplace conditions. This includes the knowledge-based learning outcomes and assessment criteria of the competence units.

These conditions would be those typical to the learner's normal place of work. The evidence collected under these conditions should also be as naturally occurring as possible. It is accepted that not all employees have identical workplace conditions and therefore there cannot be assessment conditions that are identical for all learners. However, assessors must ensure that, as far as possible, the conditions for assessment should be those under which the learner usually works.

Collection of evidence of performance can be used to substantiate, support and expand the evidence base for competent performance. This may include:

- ◆ Observation
- ◆ Product and photographic evidence
- ◆ Relevant active documentation, reports, presentations

Performance evidence: Observation

Observation of performance at work. Assessors must provide information about the context of the assessment.

Performance evidence: Products

Work products (such as reports, letters, memos, printouts, presentations, etc) are valuable items of performance evidence. Assessors are encouraged to assess work products and record the location of evidence within their assessment records. Assessment centres using 'paperless portfolios' should first discuss their approach to assessment with their awarding body.

Guidance on methods/Instruments of assessment

This unit is designed to assess the knowledge of learners in the workplace. Learning outcomes may be assessed by a work-based assessment or by observation/product evidence/witness testimony. Online assessment may also be used. The 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 be required depending on the size of the organisation in which the learner is working.

Supplementary evidence may include:

- ◆ Questioning
- ◆ Professional discussion
- ◆ Witness testimony
- ◆ Other valid evidence which relates directly to learner performance

Guidance on methods/Instruments of assessment (cont)

Supporting evidence: Questioning

Assessment by observation and examination of work products usually results in inferred knowledge. As a result, questions should only be asked to fill gaps where knowledge is not explicit. This style of assessment still requires the assessor to confirm how knowledge and understanding has been addressed but avoids over assessment of the learner.

Questioning includes: verbal and written questioning, questionnaires, work-based tasks, reflective accounts, case studies, professional discussion and feedback reports.

Supporting evidence: Professional discussion

Professional discussion is a single, or series of structured, planned and in-depth discussions which can be recorded electronically or manually in paper, computer, audio or video files. Professional discussions can be used to support observation reports, examination of work products and knowledge questionnaires. It is more usually used to fill in gaps in existing performance and knowledge evidence. It can be used formatively and summatively, and using it enhances the assessment process for both learners and assessors.

Professional discussion is used in holistic assessment, which is rigorous, informative and cost-effective, provided the learner is competent in their job role and ready to be assessed. If these conditions are met, assessors can plan to assess naturally-occurring 'evidence-rich' opportunities at work by observation, examination of work products, professional discussion and questioning knowledge within one assessment session. It is also possible for assessors to obtain witness testimonies at the same assessment session. Such a comprehensive activity is likely to focus on major work activities that demonstrate learner competence.

Supporting evidence: Witness testimony

Witness testimony can provide valuable evidence of learner competence. In line with established principles it must be:

- ◆ a clear, authentic statement indicating how the learner carries out their job
- ◆ dated, signed and include the job title of the witness

Supporting evidence: Other qualifications

Other qualifications can be used as supporting evidence in a learner's portfolio. The qualification must be current and be benchmarked to one or more of the national occupational standards. However, it will only be supporting evidence, as assessors must still make judgements about how the learner demonstrates competence at work.

SQA's guide to assessment provides information on appropriate instruments of assessment. This guide 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.

Creative and cultural skills overarching assessment principles also supports the assessment of this unit.