



# Common questions about National 4 and National 5, Higher and Advanced Higher Design and Manufacture

## Units

### **Do I need to use the National 4 added value unit assessment support pack to assess candidates?**

The Design and Manufacture added value unit assessment is an assignment. To support schools and colleges, it was agreed that the use of SQA-developed added value unit assessments would be mandatory during the first two sessions of the new qualifications in 2013–14 and 2014–15. Centres can adapt the published assessment or create their own, within limits that are clearly described in the ‘assessment overview’ of the added value unit assessment.

The assessor provides overall guidelines for the assignment including a brief and questions/tasks/prompts, to lead candidates through the assignment in clear stages. Candidates are required to design and manufacture a solution in response to a problem, by interpreting a brief, creating and developing design ideas, and using practical skills to manufacture a prototype.

We will continue to provide a free prior verification service to schools and colleges who devise their own assessments, or who significantly change SQA’s assessments to suit their needs. More information on prior verification can be found on the [National Qualifications — prior verification page](#) on SQA’s website.

### **Do I need to use SQA’s National 4 unit assessment support packs to assess candidates for the units?**

Assessors can use SQA’s unit assessments as they are, adapt/modify them and/or use them to develop their own unit assessments.

For example, although we provide sample tasks in the unit assessment support packs, centres can choose to make their own tasks, as long as they meet the demands of the assessment standards and the relevant SCQF level.

We will continue to provide a free prior verification service to schools and colleges who devise their own assessments, or who significantly change SQA's assessments to suit their particular needs. More information on prior verification can be found on the [National Qualifications — prior verification page](#) on SQA's website.

### **Do candidates have to achieve all assessment standards in order to pass a unit?**

No. There is a threshold defining the number of assessment standards to be achieved to pass a unit.

You can find details of this in the 'Understanding the Next Steps for session 2016–17' document, which is available from the subject page on SQA's website. The unit thresholds detailed in the document can continue to be applied to freestanding SCQF level 5 units from session 2017–18 onwards.

### **If candidates achieve the Design unit, and Materials and Manufacturing unit for Design and Manufacture National 4 course, but do not pass the added value unit, can they be awarded a National 3 course?**

Yes. Candidates in this position can be awarded a certificate for National 3 Design and Technology, however, this process is not automatic. Centres need to enter their candidates for the National 3 Design and Technology course.

This also applies to National 4 Graphic Communication and National 4 Engineering Science.

## **Verification**

### **Can centres use their own tasks/projects for assessment?**

Yes. Centres can use any task(s) that allow candidates to generate evidence at a suitable level to meet the assessment standards.

### **Do all centre-devised tasks have to be prior verified?**

No. Prior verification is only required if major changes are made to the approach to assessment. Centres should make sure that the task(s) they use allows candidates to generate appropriate evidence for all assessment standards.

### **How is the Design unit verified?**

The Design unit evidence is portable. If a centre is selected for verification, evidence is sent to SQA to be verified during verification events.

## **How is the Materials and Manufacturing unit verified?**

The Materials and Manufacturing unit evidence is non-portable. Team leaders (visiting verifiers) will visit centres to verify a sample of judgements.

## **How is the National 4 added value unit verified?**

The National 4 added value unit is portable. If a centre is selected for verification, evidence is sent to SQA to be verified during verification events.

## **How are the Higher and Advanced Higher assignments verified?**

Team leaders (visiting verifiers) will visit centres to carry out the verification process. The team leader will verify a centre's judgements on a sample of completed and marked assignments. The team leader will inform the centre, prior to the visit, which level they are verifying.

# **Coursework assessment task — National 5**

## **When are assignments issued?**

There will be three briefs each year, published annually at the end of November on SQA's secure website.

## **When is the submission date for sending in the 'assignment — design'?**

The submission date for the 'assignment — design' is April. Further information on this is published in the 'Guide for SQA Co-ordinators'.

## **How much time should candidates spend on the 'assignment — design'?**

Candidates generate evidence of their design skills by responding to a given brief. This evidence is produced over an extended period, allowing candidates to develop and refine their work before it is presented for assessment.

## **How much time should candidates spend on the 'assignment — practical'?**

Candidates generate evidence of their practical skills by manufacturing the proposal developed in their assignment. This evidence is produced over an extended period, allowing candidates to develop and refine their work before it is presented for assessment.

## **Will candidates be marked down if they have an exploded view rather than an orthographic to help with planning for manufacture?**

No. Candidates must provide a drawing or sketch that clearly communicates sizes and any other appropriate information required for the manufacture of their proposal. An orthographic drawing is not the only method of doing so.

## **How is measuring and marking out verified by SQA when the planning for manufacture pro forma is sent in as part of the 'assignment — design'**

Centres **must** retain a copy of the planning for manufacture pro forma for verifiers to refer to during their verification visit.

## **Can candidates achieve marks by using Computer-aided Design (CAD)/Computer-aided Manufacturing (CAM) for modelling?**

The skill being assessed is 'use of modelling'. Therefore, any suitable method of manufacturing models will attract marks provided candidates use the models to develop the design proposal.

Candidates will attract **no** marks if they use CAM to produce the prototype in the 'assignment — practical'.

## **Is Computer Numerical Control (CNC) machining allowed in the course assessment?**

Yes. Candidates can choose to produce models as part of the development of the proposal or produce parts of the proposal using CNC machining. Marks can be awarded in the 'communication' stage for any appropriate models that are produced. However, marks cannot be awarded for practical skills, for parts that are CNC machined.

## **Can marks be awarded for practical skills for formers or jigs produced by candidates?**

Yes. Marks can be awarded for any activity where candidates demonstrate practical skills in manufacturing their proposal. Reference should be made to the range statements in the 'detailed marking instructions' which are published in the coursework assessment tasks.

## **Does the complexity of the proposal impact on the marks awarded for practical skills?**

Yes. The proposal must allow candidates to demonstrate their practical ability. Very simple proposals (even if perfectly executed), are unlikely to gain full marks. Candidates must be made aware of the skills they are required to demonstrate before they start the task, as this is likely to influence their design proposal.

## **Does the manufactured proposal have to be in response to the proposal designed in ‘assignment — design’?**

Yes. The coursework assessment task is made up of two assignments: ‘assignment — design’ and ‘assignment — practical’. The task requires candidates to fulfil the ‘assignment — practical’ by manufacturing what they have designed in the ‘assignment — design’. The same coursework assessment task covers both assignments.

## **Does using templates impact on the marks awarded for measuring and marking out?**

Yes. Candidates must demonstrate their skill and accuracy in measuring and marking out. Templates created manually (eg drawn out on card), are awarded appropriate marks by referring to the range statements in the detailed marking instructions. However, templates generated using Computer-aided Design (CAD) software, do not allow candidates to demonstrate the appropriate skills and will not attract marks.

## **Can marks be awarded for measuring and marking out, if candidates have not created a working drawing?**

Yes, although candidates are encouraged to create a working drawing, as this aids manufacturing and attracts marks in the ‘communication’ stage. Without a working drawing, the accuracy of their measuring and marking out would need to be assessed against other evidence, such as a dimensioned sketch.

## **Course assessment — National 5 question paper**

### **Will the paper have a similar format every year?**

Yes, it will follow a similar format with questions grouped into two sections, as described in the course specification.

### **Are the terms stated in the course specification document, eg ‘questionnaire’, ‘user trip’ the limit of what will be assessed in the question paper on that particular topic?**

No. The skills knowledge and understanding table outlines what could be assessed in the question paper.

In terms of analysing a brief, candidates are required to have knowledge and understanding of:

- ◆ gathering data
- ◆ the reasons for selecting research techniques

- ◆ the role of the product specification in the design process
- ◆ the key stages of questionnaires and user trips

The question paper could ask general questions about gathering information or reasons for selecting a research technique. When responding to these questions, candidates could apply their knowledge and understanding of suitable research. For example, candidates asked to describe how they gathered information in a research task, can describe any valid techniques to attract marks.

However, the skills knowledge and understanding table specifies that candidates must have knowledge and understanding of the key stages of questionnaires and user trips. Questions about key stages can only be set regarding questionnaires and user trips.

This applies to all topics within the course specification. Specific questions will be asked on listed topics but where appropriate, candidates can apply their knowledge and understanding of other topics.

### **Do candidates need to write extended responses to questions?**

Where a question asks candidates to 'explain' or 'describe', extended responses are expected. In other subsidiary parts of questions (including, 'state the reason', 'state the benefits' and/or 'outline'), extended responses are not required to gain full marks.

## **General**

### **What has happened to the units now they have been removed from the National 5 course?**

These units remain available as freestanding units at SCQF level 5. They no longer contribute to the National 5 course. You can present candidates for freestanding units as an alternative to National 5 courses.

### **If candidates are only presented for units, will the threshold for the number of assessment standards remain the same?**

Yes. The threshold applied to the number of assessment standards that candidates must meet to achieve each unit has not changed.

### **Is there a bank of assessment tasks for the National 4 added value unit and Higher assignments?**

Yes. For session 2017–18, a bank of assessment tasks is available from SQA's secure website, accessed via your SQA co-ordinator.

## **When should the Higher and Advanced Higher assignment be carried out?**

The assignment should be carried out over a period of time. Candidates should be assessed at an appropriate point in the course. This will normally be when they have completed most of the work on the course.

National Qualification questions and answers can be found on the [frequently asked questions section](#) of SQA's website.