National 5 Physics

Guidance on gathering key evidence for producing estimates in session 2020–21

This document provides subject-level guidance to SQA approved centres on gathering key evidence to support estimates for National 5 Physics in session 2020–21. You should read this guidance alongside *National Courses: guidance on gathering evidence and producing estimates* and the SQA Academy resource, *Quality assurance of estimates for National Courses*.

This document also includes information on subject-level assessment resources.

Gathering key evidence to produce estimates for National 5 Physics

Every year you provide estimates for your candidates. This document and *National Courses: guidance on gathering evidence and producing estimates* will give you additional support and guidance to support your decision making for session 2020–21. Evidence should be gathered later in the course, as a realistic reflection of a candidate's attainment. It is important to note that it is not the **quantity** of evidence, but the **quality** of evidence, in relation to its predictive value, that will support you during the estimation process.

The following types of key evidence are likely to provide a good predictive value and may be helpful, although there may be other types of key evidence you feel you would like to use.

Types of key evidence and assessment resources

The closer that the evidence is to the standard, format, and duration of the physics course assessment, and the more closely the marking follows the national standard and the *Physics General Marking Principles*, the more realistic and reliable your estimates should be.

You **must** base your estimates on demonstrated attainment.

Component 1: question paper

For physics, the key pieces of evidence are:

- an examination, covering as much of the course as possible
- a second, top-up examination or an extended test, that includes those areas not assessed in the first examination
- end-of-topic tests, including grade A marks, which you may use as supplementary evidence only, as they are not as reliable for estimating grades

You must gather key evidence in closed-book conditions and conducted under a high degree of supervision and control. The National 5 Physics course specification details what is meant by a high degree of supervision and control.

Examination

In most centres, examinations are used for informing estimates. They are usually taken when candidates have covered sufficient course content to make them worthwhile and useful predictors. Centre examinations should replicate, as closely as possible, the SQA examination in style, level of demand, and conditions of assessment.

You may need to adjust the cut-off scores you use from notional, so that they are appropriate for your instrument(s) of assessment. Where it is necessary to split the examination over a number of class sessions, you should raise the cut-off scores to reflect this.

Detailed guidance for physics, on exam construction, level of demand, examples of grade A marks, and common marking issues are given in the document listed in the 'Understanding the national standard' section below.

Top-up examination or an extended test

As centre examinations usually take place before the course is completed, it is important to generate evidence covering the latter part of the course for consideration in making an estimate. The best way of doing this is through a top-up examination or an extended test. This assessment should sample the knowledge not covered in the main assessment, as well as skills. It should also sample content from the earlier parts of the course. However, it is important that no questions are repeated between the assessments, as all questions should be unseen.

You should combine the attainment demonstrated in this top-up examination or extended test with the attainment demonstrated in the main assessment, to form a judgement about the estimated grade.

You should give greater weight the to the main instrument of assessment. However, your judgement should be holistic rather than focusing only on the piece of evidence that gives the best grade.

End-of-topic tests

End-of-topic tests, which include questions containing grade A marks, can be useful supplementary evidence. Such tests should aim to contain around 30% grade A marks, so that they are of an appropriate level of demand.

End-of-topic tests tend to compartmentalise the subject content and test limited knowledge. They tend to focus on testing knowledge and understanding rather than skills, and seldom require integration of knowledge and skills. To reflect these issues, you may need to adjust the cut-off scores you use from notional, so that they are appropriate for your instrument(s) of assessment.

On their own, end-of-topic tests do not have high predictive value and are therefore **not** suitable as the main or only type of evidence.

You can use high scoring performance in the holistic SQA outcome 2 unit tests, or in outcome 2 unit tests where the centre has adapted the original unit assessment support

(UAS) packs by adding questions testing physics calculations, as supplementary evidence of a C pass only.

If you use the outcome 2 unit tests in the original UAS packs without adapting them, the lack of questions testing physics calculations means that they are unsuitable as evidence for estimates.

When considering all the evidence gathered for an individual candidate, you should give greater weight to the evidence that most closely mirrors the SQA question paper, in forming a holistic judgement.

Component 2: assignment

The requirement to undertake the assignment has been removed from the National 5 Physics course for session 2020–21. You should not consider any evidence relating to the assignment when making your estimates.

Using additional assessment resources for session 2020–21: key information

It is important that you use valid and reliable assessment when gathering evidence to produce estimates for National 5 in session 2020–21.

In National 5 Physics, SQA will provide a question paper for session 2020–21, which you can use when gathering evidence to support your estimates. Please note that the marking instructions have not been standardised based on candidate responses. You may therefore need to agree within your centre how to consistently mark an item if a candidate response is not covered by the marking instructions.

The National 5 question paper will only be available on SQA's secure website — you must treat this confidentially, in the same way as other live assessment materials.

You should carefully consider how best to use these materials to support candidates, to integrate with your programme of learning, and to help you collate evidence of candidate attainment. Given current public health advice and to maximise learning and teaching time, it is important to stress that there is no expectation that schools and colleges hold a formal diet of prelims for National 5. One of the key reasons for moving to an alternative model was to create additional teaching time through removing the need for prelims and replacing the final examination diet with more flexible classroom-based or laboratory-based assessment.

If you use the question paper in part or in its entirety, you should remind candidates that they must not discuss the content of the paper with anyone, including friends, family or on social media.

Many centres will have already developed their instruments of assessment, and there is no requirement to use SQA's 2020–21 question paper in place of those. Centres that do not have a suitable top-up examination or extended test could use a selection of questions from the question paper provided, as well as from SQA past papers, to produce an appropriate exam or extended test.

Understanding the national standard

Please ensure you read the detailed information and guidance on producing evidence and estimates in physics, provided in the document *Physics: Guidance on gathering evidence and providing estimates*.