



# NQ verification 2022–23 round 1

## Qualification verification summary report

### Section 1: verification group information

<b>Verification group name:</b>	<b>Physics</b>
<b>Verification activity:</b>	<b>Event</b>
<b>Date published:</b>	<b>May 2023</b>

### National Units verified

<b>Unit code</b>	<b>Unit level</b>	<b>Unit title</b>
H256 73	National 3	Physics: Electricity and Energy
H258 73	National 3	Physics: Dynamics and Space
H25A 73	National 3	Physics: Waves and Radiation
H256 74	National 4	Physics: Electricity and Energy
H258 74	National 4	Physics: Dynamics and Space
H25A 74	National 4	Physics: Waves and Radiation

### Section 2: comments on assessment

#### Assessment approaches

All centres selected for this round of verification used the unit assessment support (UAS) packs available on SQA's secure website. One or two centres used some prior-verified assessments. Most centres used the holistic assessment packs, Outcome 2: Assessment activity 2 — test 1 or test 2, to make clear assessment judgements on the candidates' attainment.

A very small number of centres used the original UAS pack approach of assessing knowledge and understanding and each of the problem-solving skills individually. This approach requires candidates to answer at least half of the knowledge and understanding questions correctly to pass assessment standard (AS) 2.1 and answer at least half of the questions assessing **each** problem-solving skill correctly to pass AS 2.2. Using this assessment methodology, candidates must pass each problem-solving skill individually.

A small number of centres used an invalid approach to assess outcome 2. Some of these centres had allocated 1 mark to every question, including calculations, in the original UAS pack (package 1) to give a total mark of, for example, 11 or 14, and then applied a 50% cut-off score for a pass in outcome 2. The other centres allocated 1 mark to each question, or in a small number of cases 2 marks, and 3 marks to any calculations in the original UAS pack to give a total mark and a 50% cut-off score. However, none of these centres adapted the original UAS packs, as required, by adding additional ‘standard 3-mark calculation’ type questions assessing processing. Neither approach is valid. Every verification summary report since 2018 has highlighted this issue.

Centres that used the holistic outcome 2 tests had far fewer issues than those that attempted to allocate marks to the original UAS packs.

To use the original UAS packs with marks and a 50% cut-off score, centres **must** adapt them by adding additional ‘standard 3-mark calculation’ type questions assessing processing.

Where centres are allocating marks to questions, they **must** apply the [Physics: general marking principles National 3 to Advanced Higher \(2022\)](#) without exception.

Given that two holistic outcome 2 tests with marks and a cut-off score are available for every unit, we strongly advise centres to use these tests when assessing outcome 2 holistically by applying marks and a cut-off score.

We also strongly advise centres not to attempt to adapt the original UAS packs (package 1). This will also be less work for centres. We advise centres that have attempted to allocate marks to the original UAS packs (package 1) to swap to the dedicated outcome 2 holistic tests.

We strongly advise centres to use the original UAS packs (package 1) only when they are assessing the knowledge and understanding (AS 2.1) and each of the problem-solving skills (AS 2.2) individually.

These instructions apply whether centres are delivering the units as part of the National 3 or National 4 courses, as freestanding units, or as part of other awards such as National Certificates.

## **Assessment judgements**

Centres that used the holistic outcome 2 tests for each unit, available from SQA’s secure website, made accurate and reliable assessment judgements.

Centres that used the original assessment approach, from the original UAS packs (package 1), tended to make accurate and reliable assessment judgements.

Where centres received a ‘not accepted’ decision for their assessment judgements, this was mostly because they used an invalid approach to assessment, which meant the judgements were neither accurate nor reliable.

A small number of centres did not apply the [Physics: general marking principles National 3 to Advanced Higher \(2022\)](#), as required.

Centres must record clear assessment decisions. Where there is disagreement between the assessor and the internal verifier, the final assessment decision must be clear. Centres must ensure they record these decisions on the candidates' evidence and, to allow for verification of these assessment decisions, on an appropriate record sheet.

Most centres selected for verification made it clear where internal verification took place and what the final agreed decisions were.

This year, a small number of centres supplied evidence of professional dialogue.

### **Section 3: general comments**

Centres must submit the original evidence produced by candidates, rather than photocopies, to SQA.

In some cases where centres submitted photocopies, the centre may have used different colours of ink for the assessor and internal verifier, but both appeared the same on the photocopy. This reduced quality of evidence made the verification process more difficult.

Centres are still having problems understanding the type of evidence that they are submitting to SQA, and whether it is interim or complete.

When a centre uses a complete assessment instrument, they should mark the evidence as complete, rather than interim, even if a candidate needs to be re-assessed. Centres must mark clearly on the evidence whether it is 'complete' or 'interim' when submitting it to SQA.

Centres make their assessment decisions on the evidence they supply for verification. A centre can change a 'fail' decision they make for a candidate following successful re-assessment after the verification event.

Where a centre adapts the marking instructions, these adaptations or additions must be both clear and correct. They must also adhere to the [Physics: general marking principles National 3 to Advanced Higher \(2022\)](#).

Candidates should always include units with numerical answers, unless the answer is dimensionless or is written in a table that has the units in its header. A few centres incorrectly marked answers as correct even when candidates gave answers without a unit on a separate sheet of paper or below the question.

A number of centres accepted 'cancer' for the hazard from UV rather than 'skin cancer'. Cancer, on its own, is not specific enough for centres to award the mark.

A small number of centres applied the marking instructions leniently, and accepted answers that lacked specificity or 'filled in the gaps' in a candidate response. Assessors must not interpolate or extrapolate out from candidate responses and must only mark what the candidate has written.

All centres must follow the instructions and guidance in this report.