



# **NQ Verification 2015–16 Key Message Reports**

<b>Verification group name:</b>	<b>Science</b>
<b>Levels</b>	<b>N3 and N4</b>
<b>Date published:</b>	<b>October 2016</b>

**This Report combines all Verification Key Messages for the academic session 2015-2016.**



## NQ Verification 2015–16 Key Messages Round 1

01

### Section 1: Verification group information

Verification group name:	Science
Verification event/visiting information	Event
Date published:	March 2016

#### National Courses/Units verified:

H267 73 Science: Fragile Earth  
H268 73 Science: Human Health  
H267 74 Science: Fragile Earth  
H268 74 Science: Human Health

02

### Section 2: Comments on assessment

#### Assessment approaches

All centres used the published Unit assessment support packs. However, a number of centres did not use the most recent version of the packs. Other centres made minor modifications to aspects of the packs. Provided a modified instrument of assessment still relates to the key areas of the Course, and is of an appropriate standard, such an approach is encouraged.

Centres are reminded to use the most up-to-date Unit assessment support packs and corresponding marking instructions. Some centres used the most up-to-date assessment however they had used an old version of the marking instructions.

Centres are reminded that they should make use of SQA's prior verification service where significant changes are made to the Unit assessment support packs, or if they choose to use centre-devised assessments.

[Further information on SQA's Prior Verification service](#)

**Outcome 1: The candidate will apply skills of scientific inquiry and draw on knowledge and understanding of the key areas of the Unit to carry out an experiment/practical investigation.**

Most centres used an appropriate experimental investigation to assess Outcome 1.

Centres are reminded that appropriate support can be given at National 3. This support could be targeted towards giving clear initial aims in order that appropriate conclusions can be achieved. Assessors should also give support with table/headings/units, as appropriate.

Centres are reminded that it may be possible to reduce the assessment burden on candidates by achieving some aspects of Assessment Standard 2.4 (solving problems) via a carefully designed experiment/practical investigation.

**Outcome 2: The candidate will draw on knowledge and understanding of the key areas of the Unit and apply scientific skills by:**

*Assessment Standard 2.1 Making accurate statements*

All centres used the published Unit assessment support packs. Centres are reminded to use the most up-to-date versions.

One centre adapted the Science: Human Health Unit assessment support pack to specifically ask why there was an agreement or disagreement with the health claim. This was noted as good practice as candidates were given a clear steer on how to achieve the Assessment Standard.

*Assessment Standard 2.2 Describing an application;*

*Assessment Standard 2.3 Describing a scientific issue in terms of the effect on the environment/society*

Centres are reminded that an application of Science must be researched by the candidate.

Centres are encouraged to use the assessment activities from the Unit assessment support packs.

*Assessment Standard 2.4 Solving problems*

All centres used the published Unit assessment support packs. Centres are reminded to use the most up-to-date versions.

## **Assessment judgements**

Centres must ensure that their assessment decisions and internal verification decisions are clear.

**Outcome 1: The candidate will apply skills of scientific inquiry and draw on knowledge and understanding of the key areas of the Unit to carry out an experiment/practical investigation.**

Centres must ensure that candidate scripts are annotated by the assessor to show where a particular Assessment Standard has been achieved.

**Outcome 2: Draw on knowledge and understanding of the key areas of this Unit and apply scientific skills by:**

*Assessment Standard 2.1 Making accurate statements*

Rigorous, accurate and consistent application of assessment judgements is essential. This can be facilitated by effective internal verification procedures within a centre.

Centres must provide clear commentary on making assessment judgements.

Centres must provide clear marking instructions which show all accepted answers at each level.

Centres should ensure that they are correctly applying the marking instructions for the Science: Human Health Unit assessment support pack. Candidates should describe a health claim which has been in the media and state a reason why they agree or disagree with this claim.

Centres should ensure that if they have used the most up-to-date assessment then they must also use the most up-to-date marking instructions.

Marking guidance provided in the Unit assessment support packs is not intended to be exhaustive of all possibilities and can be modified. Modifications, where made, should be noted and should be subject to effective internal quality assurance processes.

*Assessment Standard 2.2 Describing an application;*

*Assessment Standard 2.3 Describing a scientific issue in terms of the effect on the environment/society*

Centres must indicate clear reasoning for awarding a pass for Assessment Standards 2.2 and 2.3. Judgements made via cross-marking and internal verification should be summarised with appropriate statements on the candidate's work or an attached pro forma.

*Assessment Standard 2.4 Solving problems*

Centres should note that for Processing it is appropriate to accept a correct numerical answer without units. This is particularly pertinent if the unit is provided within the stem of the question.

Where candidates have more than one opportunity to demonstrate a specific problem solving skill in any given assessment, they must do so on at least half of those occasions.

The published Understanding Standards exemplar material contains examples of candidate evidence and commentaries explaining why the evidence does or does not meet national standards for assessment. Further exemplification is provided on the Science Understanding Standards pages on SQA's secure site:

[www.sqa.org.uk/sqasecure](http://www.sqa.org.uk/sqasecure).

03

## Section 3: General comments

Centre staff are reminded that all centres offering SQA qualifications must have an effective internal quality assurance system that ensures that all candidates are assessed accurately, fairly and consistently to national standards. Centres selected for external verification are expected to provide details of their quality assurance policies and processes.

Centres must ensure that accurate details are entered on the verification sample form and candidate evidence flyleaf, and on the centre's candidate assessment record or equivalent. Before submitting evidence for external verification, centres should ensure that they have referred to the guidance documents. Guidance on evidence required for external verification of Units is provided on our quality assurance web page ([www.sqa.org.uk/cfega](http://www.sqa.org.uk/cfega)).

Centres are advised to record any decisions taken during their internal verification process with appropriate statements on the candidate's work or an attached pro forma.



# NQ Verification 2015–16

## Key Messages Round 2

01

### Section 1: Verification group information

Verification group name:	Science
Verification event/visiting information	Event
Date published:	June 2016

#### National Courses/Units verified:

H26A 74      National 4      Science Assignment (Added Value Unit)

02

### Section 2: Comments on assessment

#### Assessment approaches

Most centres used the SQA Science Assignment (National 4) Added Value Unit assessment.

Most candidate evidence submitted for verification took the form of written reports. Some excellent candidate material consisted of both a log/day book and a presentation or report. Although not necessary, it was seen to be a good strategy for overtaking all of the Assessment Standards.

Posters seemed to be an effective means of engaging candidates, and good examples of posters produced by candidates were submitted for verification.

Centres who devise their own marking instructions based on the Judging Evidence Table in the Unit Assessment Support Pack should be wary of being over-prescriptive in their expectations.

## **Assessment judgements**

Centres should ensure that candidate scripts are annotated by the assessor to show where a particular Assessment Standard has been achieved. Good practice would be for the internal verifier to also annotate scripts. This is helpful for candidates and for verifiers.

Centres should also record reasons for judgements in a clear manner for verification purposes.

Centres should use the published exemplars to help clarify their own knowledge of how to overtake an Assessment Standard. This can be incorporated into the Internal Verification approach.

The following specific points relate to individual Assessment Standards.

### **Assessment Standard 1.1 — Choosing, with justification, a relevant issue in science**

This Assessment Standard was completed well. The relevance to the environment/society was largely well described. However, since there is also a requirement to explain the impact of the issue on the environment/society in Assessment Standard 1.4, it is critical for this to be considered carefully at the outset when candidates are selecting their topics for research.

Some centres submitted evidence for this Assessment Standard in the form of a candidate's log/daybook. Although this is not necessary, this was seen as good practice.

### **Assessment Standard 1.2 — Researching the issue**

This Assessment Standard was completed well. As highlighted in previous reports, candidates must supply the full URL when referencing websites they have accessed. If one of the sources is an experiment/practical activity, the title and aim should be recorded.

Centres should ensure that the research is relevant and that information can be accessed easily by candidates.

Some centres submitted evidence for this Assessment Standard in the form of a candidate's log/daybook. Although this is not necessary, this was seen as good practice.

### **Assessment Standard 1.3 — Presenting appropriate information/data**

This Assessment Standard was generally completed well. However, candidates must present some of their information/data in their own way. The correct use of title, plotting of graphs, labels and units (where appropriate) is essential; although candidates should not be penalised if there are only minor omissions/errors to the

presentation and there is sufficient detail to convey the information/data. The candidate must present their information/data by using at least **one** of the methods stated in the Unit Assessment Support Pack.

#### **Assessment Standard 1.4 — Explaining the impact, in terms of the science involved**

Candidates should relate back to the issue investigated and use relevant knowledge of science to explain at least one impact of the issue on the environment/society.

#### **Assessment Standard 1.5 — Communicating the findings of the investigation**

Candidates are not required to draw a conclusion or to summarise their findings. The evidence needs to be clear, concise, relevant and appropriately structured to meet this Assessment Standard.

### **03 Section 3: General comments**

Centres are advised that it would be effective during their internal verification process to record decisions through discussion with statements on the candidate's work or on an attached pro-forma. Centres are also reminded that the use of Internal Verification Toolkit ([www.sqa.org.uk/IVtoolkit](http://www.sqa.org.uk/IVtoolkit)) is seen as good practice.

Centres are advised that it would be appropriate during re-assessment to discuss with the candidates and record any verbal responses as evidence to overtake the Assessment Standards.

Centres are advised that all appropriate SQA documentation must be provided within the external verification pack. There are checklists provided to advise what this entails. It is especially important that the candidate evidence flyleaf is completed correctly and attached to the candidate evidence.