



# NQ verification 2023–24 round 1

## Qualification verification summary report

### Section 1: verification group information

Verification group name:	Biology
Verification activity:	Event
Date published:	August 2024

### National Units verified

Unit code	Unit level	Unit title
H207 73	National 3	Cell Biology
H208 73	National 3	Biology: Multicellular Organisms
H209 73	National 3	Biology: Life on Earth
H207 74	National 4	Cell Biology
H208 74	National 4	Biology: Multicellular Organisms
H209 74	National 4	Biology: Life on Earth

### Section 2: comments on assessment

#### Assessment approaches

All centres used SQA's unit assessment support (UAS) packs, however, a small number of centres used outdated versions of the UAS packs. Centres must use the most up-to-date UAS packs from SQA's secure website.

#### **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.**

Some centres indicated that the candidate evidence submitted was complete but did not provide an outcome 1 report for their candidates. Centres are reminded that complete evidence must include evidence for both outcome 1 and outcome 2 and candidates cannot be awarded a pass for a unit until a pass has been achieved for **both** outcomes. If outcome 1 has not yet been completed by a candidate, the evidence should be indicated as interim. Evidence of outcome 1 is transferable between freestanding units at the same level and, therefore, candidates should only complete one outcome 1.

Candidates must be given the opportunity to meet all assessment standards for outcome 1. Centres are therefore expected to ensure that contexts that allow active planning by all candidates are chosen for experiments or practical investigations. Centre staff should familiarise themselves with the guidance in the outcome 1 judging evidence table in the UAS packs for each unit of the SCQF level being assessed.

National 4 candidates should not be provided with a template to complete their outcome 1 report. Candidates should be provided with the 'Assessment information for candidates' section, which is in the appendix of the UAS pack. This contains a series of prompts to guide them to produce the required evidence for assessment.

### **Assessment standard 1.1**

A small number of centres did not provide opportunities for candidates to meet the planning aspect of assessment standard 1.1. Some candidate evidence suggested that all candidates from a class had been provided with a protocol to carry out the experiment or practical investigation, with no evidence to suggest that candidates had been actively involved in the planning of the investigation. If a candidate has not been actively involved in the planning of the experiment or practical investigation, the candidate is unable to achieve a pass for assessment standard 1.1.

### **Assessment standard 1.2**

Some centres recorded that candidates had followed safety procedures safely on an observation checklist or candidate assessment record. In some cases, candidates identified the relevant safety procedures in their individual reports. Although candidates are not required to discuss safety as part of the outcome 1 report, including assessor and/or internal verifier comments as part of the checklist or candidate record is an example of good practice.

### **Assessment standard 1.3**

Candidates must only provide the raw data for their experiment or practical investigation. The data does not need to be presented in a fully accurate table for candidates to meet the requirements for this assessment standard.

### **Assessment standard 1.4**

Most candidates presented their data in both table and graph format. Tables need headings that adequately reflect the data. Candidates must also include the appropriate units for their data. A small number of candidates had been provided with an inappropriate level of support as they were given a template for completing the table to record their data. Candidates must choose their own method of presenting the data and if a table is chosen, they must design their own table to meet the requirements for assessment.

## **Outcome 2**

Some centres adopted the unit-by-unit approach, and some adopted the portfolio approach. A small number of centres had incorrectly identified their approach to assessment, identifying their approach as unit-by-unit when the candidate evidence demonstrated that a portfolio approach had been adopted. Centres are reminded to make full use of the guidance on approach within SQA's UAS pack for each unit, to ensure that a full understanding of both approaches is developed.

A small number of centres used a combination of unit-by-unit approach and portfolio approach. Centres should select the method of assessment based on the needs of individual

candidates. This may result in a combination of approaches being adopted across a cohort. However, a combination of assessment approaches for an individual candidate is not permitted. If the unit-by-unit approach is adopted, this approach must be adopted for all units for an individual candidate. If a portfolio approach is adopted, this approach must be adopted for all units for an individual candidate.

A small number of centres had made amendments to the UAS packs by replacing questions with a different question. The replacement question changed both the level of demand and the balance of question styles within the assessment. Amendments are permitted to the UAS packs; however, any amendments must not change the level of difficulty of the assessment or change the balance of assessment standard 2.1 and assessment standard 2.2 questions in the assessment.

### **Assessment judgements**

Candidates are no longer required to pass assessment standard 2.1 and 2.2 independently. If a unit-by-unit approach is used, candidates must achieve 50% or more of the total marks available in a **single** unit assessment to pass outcome 2 for that unit. If a portfolio approach is used, candidates must achieve 50% of the total marks available for assessment standard 2.1 in **each** unit and 50% of the total marks available for assessment standard 2.2 **across all three units**.

Centres can refer to the Understanding Standards audio presentation on the [Biology subject page](#) on SQA's website for clarification on thresholds for each approach.

Where centres adopted the unit-by-unit approach, those centres used the appropriate threshold. Where centres adopted the portfolio approach, a small number of centres did not use the appropriate thresholds for assessment standard 2.1 and assessment standard 2.2. When using the portfolio approach, the appropriate thresholds for assessment standard 2.1 and assessment standard 2.2 must be applied to candidate evidence in order to make the appropriate assessment judgement.

Most centre's assessment judgements were in line with the national standard. However, inconsistent application of the marking guidance was evident in some centres. Agreed marking guidance must be applied consistently, and internal verification must be implemented to ensure that all candidates are assessed to national standards.

For a small number of candidates, centre staff had discussed answers with the candidates to confirm their response. This is permitted and is an example of good practice, where the candidate response is unclear.

Marking guidance provided in the UAS packs is not intended to be exhaustive of all possibilities and can be modified. Almost all centres demonstrated good practice by annotating their marking guidance and detailing acceptable alternative answers. A small number of centres accepted appropriate answers that were not included in their marking guidance. Noting additional acceptable answers on the marking guidance ensures that assessments are fair and equitable for all candidates.

Some centres added incorrect answers to their marking guidance. If a centre amends SQA marking guidance to include additional answers for a question, care should be taken to ensure that these meet the national standard demonstrated in the current SQA UAS packs.

If a candidate needs reassessment for a unit assessment, the candidate must be assessed using a different assessment. Two versions of the UAS pack are available on SQA's secure website for each unit. It is not permitted to return the original assessment to the candidate to allow them to use guidance from centre staff to answer the questions that were incorrect when they completed the initial assessment.

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

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 processes, for example, in the form of an internal verification and moderation policy. Providing an internal verification and moderation policy to external verifiers gives them a better understanding of the processes implemented in the centre.

Whilst most centres did not provide a copy of their internal verification and moderation policy, it was evident that cross-marking was routinely used to make assessment judgements for most candidates. However, where the marking decision made by the assessor and internal verifier differed, there was often no indication of the final assessment decision made. The assessor and the internal verifier must discuss any discrepancies between the marks they award. Centres must clearly indicate the final judgement on the candidate evidence and/or the candidate assessment record.

Some centres provided evidence of their internal verification processes, specifically internal verification records. Some centres showed good practice by including notes from the internal verifier and demonstrating how they made assessment judgements. However, this did not always lead to consistent, reliable assessment judgements, specifically if they applied the marking guidance leniently.

Centres should record any discussions that take place during their internal verification process. They can use a candidate record sheet or an internal verification record sheet. Clearly annotating the candidate evidence, indicating where marks have or have not been awarded, is very helpful for candidates, other assessors, and verifiers. Assessor comments on particular assessment judgements are also useful in helping to make it clear why these judgements have been made.

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. If the evidence is indicated as being 'complete' on the candidate flyleaf, the sample must include evidence for **both** outcome 1 **and** outcome 2. When submitting evidence for only one outcome, the centre must indicate that the evidence is 'interim' on the candidate flyleaf.

Centres can choose which unit to submit for each level of verification. It is not necessary to submit evidence for all three units in a particular level. Centres can choose to submit different units for different levels if they are selected for verification for more than one SCQF level.

Centres are reminded that the National 4 added value unit (AVU) is **not** verified by SQA during the Round 1 procedure. Centres must only submit evidence for the added value unit if they are selected for Round 2 verification for National 4.

Centres should review their internal verification processes to ensure that they are effective. It is good practice to use SQA's [Internal Verification Toolkit](#).



# NQ verification 2023–24 round 2

## Qualification verification summary report

### Section 1: verification group information

Verification group name:	Biology
Verification activity:	Event
Date published:	August 2024

### National Units verified

Unit code	Unit level	Unit title
H20A 74	National 4	Biology Assignment: Added Value Unit
J4A9 75	SCQF level 5	Cell Biology
J4AA 75	SCQF level 5	Biology: Multicellular Organisms
J4AC 75	SCQF level 5	Biology: Life on Earth
J4A6 76	SCQF level 6	Biology: DNA and the Genome
J4A7 76	SCQF level 6	Biology: Metabolism and Survival
J4A8 76	SCQF level 6	Biology: Sustainability and Interdependence
J4A3 76	SCQF level 6	Human Biology: Human Cells
J4A5 76	SCQF level 6	Human Biology: Physiology and Health
J4A4 76	SCQF level 6	Human Biology: Neurobiology and Immunology

### Section 2: comments on assessment

#### Assessment approaches

All centres used the SQA unit assessment support packs, though a small number of centres used outdated versions of these. Centres are reminded to use the most up-to-date unit assessment support packs and corresponding marking guidance from SQA's secure website.

#### H20A 74 National 4 Biology Assignment (Added Value Unit)

##### Outcome 1: Apply skills and knowledge to investigate a topical issue in biology and its impact on the environment / society

All centres used the Biology Assignment (National 4) Added Value Unit assessment. Some of the evidence submitted for verification was in the form of a written report, and in many

instances, it was clear that this had been produced to meet the requirements of a National 5 coursework assignment. This approach can be adopted at the discretion of the centre; however, centres must appreciate that in such cases there is inevitably a different emphasis in the assignment at each level. A National 5 Assignment report is unlikely to allow candidates to access all marks available for assessment standards 1.1 and 1.4. For example, at National 4 level the issue being investigated must have some relevance to the environment / society. Centres are reminded that candidates must be provided with the opportunity to meet all assessment standards within the added value unit to ensure that no candidate is disadvantaged.

Most evidence submitted for verification was in the form of a poster, with almost all candidates clearly dividing their poster into sections representing each of the assessment standards. Almost all centres had made annotations on the candidate evidence to indicate where marks were being awarded for each assessment standard. Some centres had included a candidate assessment record, indicating marks awarded for each assessment standard; however, no annotations had been made on the candidate's poster. Centres are reminded that it is good practice to indicate where marks have been awarded on the candidate's evidence.

It is important that the activity used to generate evidence is at the appropriate level, and care should be taken to ensure that this is not too demanding for unit assessment. Where a candidate fails to achieve the outcome on their first assessment opportunity, it is not necessary for them to redraft their entire report or presentation. Redrafting the relevant part(s), or adding some supplementary evidence, to demonstrate that they have achieved the required number of marks would be sufficient. Evidence produced to meet the requirements of a National 5 assignment does not necessarily allow candidates to achieve a pass for this unit and, in many instances, some redrafting is required: specifically, assessment standards 1.1, 1.2, and 1.4.

Many centres subdivided the individual requirements for each assessment standard into a checklist, detailing the sub-points within each assessment standard. This is good practice, assisting candidates and assessors in ensuring that all aspects of each assessment standard has been addressed.

### **Assessment standard 1.1 — Choosing, with justification, a relevant issue in biology**

Almost all candidates were able to make some form of statement regarding the issue being investigated. However, the justification for choosing this must include a statement explaining the relevance of the issue to the environment / society, which was rarely included or correct. As there is also a requirement to explain the impact of the issue on the environment / society for assessment standard 1.4, it is critical for this to be considered carefully at the outset when candidates are selecting their topics for research.

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

Most candidates included relevant information / data from two sources in their evidence. Some candidates used an experiment or practical activity as one of the two sources of data. Where this approach is adopted, it is important to ensure that it is clearly linked to an issue that satisfies the criteria for assessment standard 1.1, that is, it has an impact on the environment / society. Centres are reminded that, where the candidate's own data has been included, then the title and aim must be recorded as the reference for this source. This must be separate from the title and aim of the investigation itself.

### **Assessment standard 1.3 — Processing and presenting appropriate information / data**

Almost all candidates provided evidence of presenting one of their pieces of information / data in a different way to that found in their source. In many instances, this was in the form of a graph or table, but these were not always completed with the accuracy required at this level. Centres are reminded that a half box tolerance should be used when candidates are plotting points on a graph. For the added value unit only, centres are reminded that candidates are only required to plot a minimum of 90% of their points accurately to be awarded the mark.

### **Assessment standard 1.4 — Applying knowledge and understanding of biology relevant to the issue**

There is no requirement for the topic to include an application of biology. Guidance should be given to candidates in the initial stages of choosing a topic to ensure that this is an assessment standard they can meet. Centres are reminded that marks can only be awarded for descriptions or explanations of underlying biology that are relevant to the issue being investigated. Candidates can only access the third mark for this assessment standard if the impact is explained or described using some knowledge of biology.

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

Centres are reminded that candidates are required to draw a conclusion or to summarise their findings and that this must be supported by the evidence in the investigation.

## **SCQF level 5 and level 6**

### **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.**

A small number of centres indicated that the candidate evidence submitted was complete but did not provide an outcome 1 report for their candidates. Centres are reminded that complete evidence must include evidence for both outcome 1 and outcome 2, and candidates cannot be awarded a pass for a unit until a pass has been achieved for **both** outcomes. Where an outcome 1 has not yet been completed by a candidate, the evidence should be indicated as interim.

Centres are reminded that evidence of outcome 1 is transferable between freestanding units at the same level and, therefore, candidates should only complete one outcome 1.

Centres are reminded that candidates must be given the opportunity to meet all assessment standards for outcome 1. Centres are therefore expected to ensure that contexts that allow active planning by all candidates are chosen for experiments or practical investigations. It is recommended that centre staff familiarise themselves with the guidance within the outcome 1 judging evidence table in the unit assessment support packs for each unit of the SCQF level being assessed.

### **Assessment standard 1.1**

A small number of centres did not provide opportunities for candidates to meet the planning aspect of assessment standard 1.1. Some candidate evidence suggested that all candidates from a class had been provided with a protocol to carry out the experiment / practical investigation, with no evidence to suggest that candidates had been actively involved in the planning of the investigation. Where a candidate has not been actively involved in the



planning of the experiment / practical investigation, the candidate is unable to achieve a pass for assessment standard 1.1.

Some candidates provided aims that were unclear and therefore were unable to draw suitable conclusions. In addition to this, some candidates provided dependent variables that were not appropriate to the aim or did not include all controlled variables that could affect the results.

### **Assessment standard 1.2**

Some centres recorded that candidates had followed safety procedures safely on an observation checklist or candidate assessment record. In some cases, candidates identified the relevant safety procedures within their individual reports. Centres are reminded that, although candidates are not required to discuss safety as part of the outcome 1 report, including assessor or internal verifier comments as part of the checklist or candidate record is an example of good practice.

### **Assessment standard 1.3**

To meet the requirements for this assessment standard, candidates are only required to provide the raw data for their experiment or practical investigation. There is no requirement for this data to be presented in a fully accurate table for candidates to meet the requirements for this assessment standard.

### **Assessment standard 1.4**

Most candidates presented their data in both table and graph format. To meet the requirements for this assessment standard, candidates are only required to present their data in one of these formats. Where a candidate has opted to present their data in both formats, both should be marked, but candidates are only required to show full mastery in one format to meet the requirements for the assessment standard.

Centres are reminded that tables require headings that adequately reflect the data. Candidates must also include the appropriate units for their data. A small number of candidates had been provided with an inappropriate level of support as they were given a template for completing the table to record their data. Centres are reminded that candidates must select their own method of presenting their data for this assessment standard and, where a table is the chosen method, candidates must design their own table to meet the requirements for assessment.

Where candidates have presented their data in a graph format, centres should apply a half box tolerance to the plotting of the data.

## **Outcome 2**

Almost all centres adopted the unit-by-unit approach, applying the appropriate threshold of 50% or more of the total number of marks available for assessment standards 2.1 and 2.2 combined. However, the portfolio approach was adopted by a small number of candidates. Centres are reminded that the portfolio approach is **not** permitted at SCQF levels 5, 6 and 7.

## Assessment judgements

Candidates are no longer required to pass assessment standard 2.1 and 2.2 independently. When using the unit-by-unit approach, candidates must achieve 50% or more of the total marks available in a single unit assessment to pass outcome 2 for that unit.

Centres can refer to the Understanding Standards audio presentation on SQA's website for clarification regarding thresholds for each approach:

[https://www.sqa.org.uk/sqa/files\\_ccc/BiologyUnitsAssessmentandExternalVerification.ppsx](https://www.sqa.org.uk/sqa/files_ccc/BiologyUnitsAssessmentandExternalVerification.ppsx)

For most centres, the assessment judgements were in line with the national standard. However, inconsistent application of the marking guidance was evident in some centres. Centres are reminded that agreed marking guidance must be applied consistently, with internal verification being implemented to ensure that all candidates are assessed to national standards.

For a small number of candidates, centre staff had discussed answers with the candidates to confirm their response, noting this on the candidate evidence. This is permitted and is an example of good practice, where the candidate response is unclear.

Marking guidance provided in the SQA unit assessment support packs is not intended to be exhaustive and can be modified. Almost all centres demonstrated good practice by annotating their marking guidance and detailing acceptable alternative answers. A small number of centres accepted appropriate answers that were not included within their marking guidance. Centres are reminded that noting additional acceptable answers on the marking guidance ensures that assessments are fair and equitable for all candidates.

Some centres added incorrect answers to their marking guidance. Where a centre amends SQA marking guidance to include additional answers for a question, care should be taken to ensure that these meet the national standard demonstrated in the current SQA unit assessment support packs.

Where a candidate requires reassessment for a unit assessment, centres are reminded that the candidate must be assessed using a different assessment. Two versions of each unit assessment support pack are available on SQA's secure website for each unit. It is not permitted to return the original assessment to the candidate to allow the candidate to use guidance from centre staff to answer the questions that were incorrect when they completed the initial assessment.

## 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 processes, for example in the form of an internal verification and moderation policy. Inclusion of the centre's internal verification and moderation policy would be helpful in assisting event verifiers to develop a better understanding of the processes implemented within the centre.

Whilst most centres did not provide a copy of their internal verification and moderation policy, it was evident that cross-marking was routinely used to make assessment judgements for most candidates. However, where the marker and internal verifier decisions differed, the final assessment judgements were not always clear. Centres are reminded that, where assessment judgements of the marker and internal verifier differ, it is essential that discussion takes place and the final assessment decisions are noted on the candidate evidence or the candidate assessment record.

Some centres provided evidence of their internal verification processes, specifically internal verification records. Some centres showed good practice by including notes from the internal verifier and demonstrating how assessment judgements were made. However, this did not always lead to consistent, reliable assessment judgements being made, as in some cases the marking guidance was leniently or severely applied.

Centres are advised to record any discussions that take place during their internal verification process. These could be recorded on a candidate record sheet or on an internal verification record sheet. Clear annotation by assessors on the candidate evidence, indicating where marks have or have not been awarded, is very helpful for candidates, other assessors and verifiers. Assessor comments on assessment judgements are also useful in helping to make it clear why these judgements have been made.

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. Centres are reminded that, where the evidence is indicated as being 'complete' on the candidate flyleaf, the sample must include evidence for **both** outcome 1 **and** outcome 2. When submitting evidence for only one outcome, the centre must indicate on the candidate flyleaf that the evidence is 'interim'.

Centres are reminded that they can choose which unit to submit for each level of verification. It is not necessary to submit evidence for all three units within a particular level. Centres can choose to submit different units for different levels if they are selected for verification for more than one SCQF level.

Centres should review their internal verification processes to ensure that they are effective. Centres are advised to refer to the Internal Verification Toolkit for further guidance: ([www.sqa.org.uk/sqa/74670.html](http://www.sqa.org.uk/sqa/74670.html)).