



NQ Environmental Science Qualification

Verification Summary Report 2024–25

Section 1: verification group information

Verification group name:	Environmental Science
Verification activity:	Event
Round:	1 and 2
Date published:	August 2025

National Units verified

Unit code	Unit level	Unit title
H24P 73	National 3	Environmental Science: Living Environment
H24R 73	National 3	Environmental Science: Earth's Resources
H24S 73	National 3	Environmental Science: Sustainability
H24P 74	National 4	Environmental Science: Living Environment
H24R 74	National 4	Environmental Science: Earth's Resources
H24S 74	National 4	Environmental Science: Sustainability
H24T 74	National 4	Environmental Science assignment
J25Y 75	SCQF level 5	Environmental Science: Living Environment
J265 75	SCQF level 5	Environmental Science: Sustainability
J261 76	SCQF level 6	Environmental Science: Living Environment

Section 2: comments on assessment

Assessment approaches

Almost all centres had used the most recently published SQA unit assessment support (UAS) packs for assessment. Centres are reminded to check that they are using the most up-to-date UAS packs. UAS packs that are no longer available on the secure site are out of date and must not be used

Some centres marked the evidence they submitted as complete, but did not include evidence for both outcome 1 and outcome 2. Candidates must pass both outcome 1 and outcome 2 to pass a unit, although evidence for outcome 1 from any unit is transferable between all the units. If centres are submitting evidence for only outcome 1 or outcome 2, the submission must be marked as interim evidence.

Some centres sent incomplete evidence for outcome 2 by sending evidence for only a portion of the questions in the outcome 2 test. Centres are reminded that interim evidence must cover an outcome; evidence must either be a complete report for outcome 1 or a complete test for outcome 2.

A very small number of centres had issued candidates with a logbook to fill in for the added value unit. However, the level of additional guidance contained in such logbooks was too detailed and gave an inappropriate level of assistance. The UAS pack gives detailed information on what constitutes reasonable assistance. Centres must issue the instructions for candidates contained in the UAS pack and must not supplement these with centre-devised instructions. Logbooks should not contain any prompts and are to be used for collecting research information during stage 1 only.

Assessment judgements

Assessors had, in general, made assessment judgements in line with national standards.

Some centres had annotated the marking instructions with additional alternative responses to the marking instructions to show alternative answers that are acceptable or not acceptable. The UAS pack marking instructions are not exhaustive and centres are encouraged to annotate them, as this aids consistency between assessors and internal verifiers within a centre. Centres should make sure that any annotations are scientifically correct.

Most centres used the holistic approach of applying marks and a cut-off score of 50% to the assessment of outcome 2. This is by far the easiest approach to administer and internally verify, and all centres are encouraged to adopt this approach.

In a small number of centres, the assessor had separated the marks for assessment standards (AS) 2.1 and 2.2, which is only acceptable if each of the problem-solving skills for AS 2.2 is judged individually. However, in most cases the internal verifier used the holistic approach and changed this to use the 50% cut-off score across the two assessment standards. Centres should be aware that applying a 50% cut-off score to AS 2.2 (problem solving) as a whole is an invalid approach.

Where a centre is assessing AS 2.1 and 2.2 atomistically, the centre must still give all the questions in the outcome 2 test to the candidate to answer. For the atomistic approach, candidates must achieve at least 50% of the accurate statements testing AS 2.1, and must achieve at least 50% in each of the problem-solving skills. For example, if a test has three questions testing the problem-solving skill of predicting, the candidate must answer at least two of the questions correctly to pass that skill. When using the atomistic approach, the candidate must pass all of the problem-solving skills to pass AS 2.2.

Some centres had included evidence for outcome 1 for verification. Most centres had applied the judging evidence criteria correctly. However, a few centres did not apply the criteria for each assessment standard correctly, in particular for AS 1.1, 1.3, 1.4, and 1.5.

For AS 1.1, an aim must be specific; sometimes a vague aim was incorrectly awarded the standard.

For AS 1.3, candidates must include their raw data. Some candidates had not included any raw data but were still awarded a pass for the assessment standard.

Where raw data is not included, AS 1.4 cannot be awarded, as it is not possible to check whether the data has been plotted correctly.

When a candidate draws a graph, it must either be drawn using a computer graphing package or using graph paper. Drawing a graph on blank paper, or squared paper, is not appropriate, as the accuracy of the plotting cannot be determined. When computer graphing packages are used to produce a graph, the candidate must include both major and minor gridlines for the assessment standard to be awarded. When a candidate includes a line of best fit, it must be appropriate to the data. Centres are also reminded that a candidate must use units in tables and on graphs when appropriate, and the correct SI unit must be used.

For AS 1.5, when a candidate states an aim that contains multiple parts, the conclusion must apply to all parts of the aim for the assessment standard to be awarded.

The evidence for and assessment of the added value unit (AVU) was generally good. All candidates prepared their investigations as reports, PowerPoint presentations, or posters.

Some candidates had processed data from graphs into tables, and this can be valid as long as it is possible to determine accurate values from the graph. Where it is not possible to determine the absolute values from a graph, it is not appropriate to award the mark for AS 1.3a, as a table in this case is not an appropriate format. As the

absolute values cannot be determined, this would also mean that the mark for AS 1.3c cannot be awarded, since the accuracy of processing cannot be checked.

Some centres had marked a copy of a National 5 assignment as an AVU. While this is acceptable practice, it is not recommended. The requirements for a National 5 assignment and a National 4 AVU are different, and they are also assessed differently. A National 5 assignment will often not give a candidate an opportunity to achieve all the assessment standards. For example, AS 1.1a, 1.1b, 1.2b, 1.4a and 1.4b may not be achievable if the candidate has not investigated and reported on a relevant topical issue.

Some centres awarded candidates the mark for AS 1.1a for the title of the candidate's communication. The mark for this assessment standard is awarded for a clear statement of the issue being investigated. If the title of the candidate's communication is a clear statement of the issue, then it would be acceptable to award the mark. However, it is not appropriate to award the mark for a title that does not communicate the issue.

Some centres had awarded the mark for AS 1.3c despite points being plotted incorrectly and/or the mean being calculated incorrectly. To award the mark for AS 1.3c, a minimum of 90% of the data must be plotted and/or calculated correctly.

Many centres had applied the standard for AS 1.5a correctly, and did not award a mark because candidates had not summarised or given a conclusion based on all of their data.

Some candidates did not include two sources of data, meaning they could not be awarded both marks in AS 1.2a. This also meant that they could not be awarded the mark for AS 1.2b, since they could not give two correct references. Some candidates used an experiment as one of their data sets, but did not record the title and aim of the experiment, which meant they could not be awarded the mark for AS 1.2b.

Some centres had given candidates a template for the AVU, which is not acceptable. Centres are reminded that at National 4 level, candidates should only be given the information for candidates from the UAS pack and must not be given a template.

Centres must follow the guidance for assessment conditions laid out in the UAS pack for the added value unit, and not give inappropriate levels of assistance.

Section 3: general comments

Centres must check at the start of the year that they are using the most up-to-date assessments if they are using the UAS packs.

If a centre decides to adapt a UAS pack significantly, the adapted assessment should be submitted to SQA for prior verification before it is used. This helps ensure that candidates are not assessed using invalid assessment instruments.

When centres are using the holistic approach of allocating marks and a cut-off score, they must make sure to total the number of marks awarded correctly. Centres are advised to use the holistic approach rather than the original atomistic approach, as it is much easier to administer and track, and helps reduce assessor workload.

Candidates must pass both outcome 1 and outcome 2 to pass a unit, although evidence for outcome 1 from any unit is transferable between all the units at that level. Evidence from a Higher assignment, National 5 assignment, or National 4 Environmental Science added value unit cannot be used as evidence for outcome 1.

There is no need to verify all evidence internally; an appropriate sample can be verified. The internal verification carried out by centres was generally good. Many centres showed a high level of annotation on candidate evidence, showing rigorous internal verification.

Where the assessor and the internal verifier do not agree, the final decision must be made clear. Both the assessor and the internal verifier must be aware of the standard of answer expected for each level of qualification, and both must be aware that the marking guidance is not meant to be exhaustive and can be annotated by the centre.

Some questions in the UAS packs specify that the answer must be appropriate to the previous part of a question. In these questions, an answer in the second part of the

question that does not relate to the first part cannot be awarded the mark. However, where a candidate gives an answer to the first part that is incorrect and then gives an answer to the second part that is consistent with their previous incorrect answer, they may be awarded the second mark. This ensures a candidate is not penalised twice for the same mistake.

In some cases, answers were accepted that referred to inter-specific competition rather than intra-specific competition, and also biomagnification rather than bioaccumulation. These terms are not interchangeable.

Some centres had not annotated the candidate's evidence for the added value unit, so it was not possible to see where the marks for assessment standards had been awarded. Centres should mark on the candidate's evidence where the marks for each assessment standards are achieved. This will aid both internal and external verification.