



Qualification Verification Summary Report

NQ Verification 2019–20

01

Section 1: Verification group information

Verification group name:	Chemistry
Verification event/visiting information	Event
Date published:	June 2020

National Courses/Units verified:

H21G 73	Chemical Changes and Structure
H21J 73	Nature's Chemistry
H21G 74	Chemical Changes and Structure
H21J 74	Nature's Chemistry
H21L 74	Chemistry in Society

02

Section 2: Comments on assessment

Assessment approaches

National 3 units

All centres verified had used the published unit assessment support packs (UASPs), which meant that there were generally few problems concerning the approach to assessment. All centres verified were using a test with a 50% cut-off score to assess outcome 2.

Almost all centres were assessing outcome 1 appropriately. However, a small number of centres required candidates to successfully carry out multiple types of processing for assessment standard 1.3. There is no requirement to do this. The candidate is required to process their results and present these in a given format using at least one of the following formats: extended table, line graph, bar chart, or another appropriate format. As long as one form of processing is carried out successfully, this is sufficient to achieve assessment standard 1.3.

National 4 units

All centres verified had used the published unit assessment support packs (UASPs), which meant that there were generally few problems concerning the approach to assessment.

Most centres were using the unit-by-unit approach. Almost all centres verified were using a test with a 50% cut-off score to assess outcome 2 rather than ensuring that 50% or more of the knowledge statements made by a candidate were correct and at least one correct response was made for each of the problem solving skills.

Some centres had chosen to make modifications to published UASPs. A number of centres had chosen to provide candidates with a template to record their responses. This is acceptable. However, care must be taken to ensure that the level of demand is not altered. For questions that require candidates to provide the correct units, it is not acceptable to supply a template for responses with the units already filled in, as this reduces the level of demand. Centres should also ensure that where re-assessment of a candidate is required, a different assessment to the original is provided to candidates.

Almost all centres were assessing outcome 1 appropriately. However, a small number of centres required candidates to achieve all six of the assessment standards for outcome 1. Candidates are only required to achieve five of the six assessment standards in order to achieve outcome 1. In addition, a small number of centres required candidates to include a hypothesis in order to achieve assessment standard 1.1. There is no requirement in the marking guidance for candidates to do this and should not be assessed as part of outcome 1.

Centres should ensure that they are applying the marking guidance appropriately and not increasing the level of demand for outcome 1.

When a centre accepts responses other than those in the marking guidance there should be annotations to the marking guidance to reflect the additional correct responses. Some centres made annotations to the marking guidance, which was helpful during verification. However, in a few cases the additional responses recorded on the marking guidance were invalid. Centres should therefore ensure that any additional responses added to the marking guidance are appropriate.

Assessment judgements

On most of the candidate evidence submitted there were clear marking annotations and clear judgements where the assessment standards had been achieved. These were often by both assessors and internal verifiers.

Most assessment judgements were accurate and reliable. Most centres submitted candidate record sheets to record the assessment decisions, which aided the external verification process.

There were some issues with the correct use of SI units. 'Seconds' or 's' is an appropriate unit for time. 'Secs' is not a correct SI unit. If a candidate chooses to record a time in minutes and seconds, then this must be clearly noted. Times given in minutes and seconds, for example 2:34, but with a unit given only as seconds are not correct. The correct unit for temperature is °C, not °. If units are stated incorrectly by a candidate in outcome 1, then an assessment standard cannot be achieved. If units are incorrectly stated in outcome 2, the response cannot be awarded a mark.

National 3

Almost all centres verified were found to have made reliable assessment judgements and applied the marking guidance consistently throughout.

On a small number of occasions, candidates had provided a response to a question that demonstrated understanding of the principles being assessed, but that was not stated in the marking guidance. It is acceptable to modify the marking guidance to accept valid additional responses.

National 4

Most centres verified were found to have made reliable assessment judgements and applied the marking guidance consistently throughout.

For outcome 1, some candidate evidence indicated that redrafting had taken place in order to achieve assessment standards. This is acceptable. However, assessors should not provide specific advice on how to improve responses, and should ensure that any feedback provided prior to redrafting is limited to general advice.

A small number of centres had not correctly applied the marking guidance for assessment standards 1.3 and 1.4. Assessment standard 1.3 relates to observations or measurements of raw data being recorded correctly, including SI units. There is no requirement for processed data (including averages) to be assessed for this assessment standard.

Assessment standard 1.4 relates to processing raw data into an appropriate format (extended table, graph, bar chart, or another appropriate format), with correct SI units. Averages should be assessed as part of this assessment standard.

For outcome 2, some candidates were awarded marks for responses including incorrect units, chemical symbols and specific chemical terms. If a response does not require a unit, but an incorrect one is stated, this should not be awarded a mark. Where a chemical symbol is stated, it must be in the correct format, for example Br, not BR for bromine. Chemical terms must be correctly stated. One issue commonly seen was a mark being awarded for the response 'iconic', rather than ionic.

Section 3: General comments

In Round 1 this session centres were selected for verification in Chemistry for units at National 3 and National 4. This session, there was no visiting verification, and no verification of the National 4 Added Value Unit (H21M).

Most centres verified in this session have a good understanding of the national standard. Almost all centres provided candidate evidence that was internally verified by cross-marking. It was observed that centres will often show clearly which judgements are made by an assessor and which are made by the internal verifier since different coloured pen is used. Undertaking internal verification activity in this way aids the process of external verification. Most centres also included comments and notes on professional dialogue between assessors and internal verifiers and this was very helpful.

In some centres, the process of internal verification was not entirely effective. In some cases, both the original assessor and internal verifier awarded marks incorrectly to candidates. This was particularly true for assessment standards where processing of data had to be checked, or for candidate responses required use of a correct unit or chemical formula. On a few occasions, there was discrepancy between the internal verifier and assessor, and it was not clear what the final assessment judgement was.

Although the marking guidance provided in the UASPs is not intended to be exhaustive and can be modified, centres must ensure that any modifications are of an equivalent standard to the existing guidance. If valid modifications are made, they must be applied consistently to all candidates within the cohort. If a correct answer is followed by a wrong answer, then this should be treated as a cancelling error and no marks should be awarded.

If candidates choose to word-process their evidence, this is acceptable. However, they are still required to provide chemically correct responses, with the use of subscripts and superscripts as appropriate for formulae.