



# NQ Verification 2017–18

## Key Messages Round 1

01

### Section 1: Verification group information

Verification group name:	Chemistry
Verification event/visiting information	Event and visiting
Date published:	March 2018

#### National Courses/Units verified:

H21G 73	National 3	Nature's Chemistry
H21J 73	National 3	Chemical Changes and Structure
H21J 74	National 4	Nature's Chemistry
H21G 74	National 4	Chemical Changes and Structure
H21G 75	SCQF level 5	Chemical Changes and Structure
H4KH 76	Higher	Chemical Changes and Structure
H21J 76	Higher	Chemical Changes and Structure

02

### Section 2: Comments on assessment

#### Assessment approaches

In August 2016, SQA produced guidance for centres explaining the changes to assessment for candidates presented in session 2016–17. This guidance is also valid for the current session, 2017–18. 'Understanding the next steps' documents are available for each level from the SQA website.

Candidates are no longer required to show full mastery of the assessment standards to achieve outcome 1 at each level. Outcome 2 can be assessed by means of a single test that contains marks and a cut-off score. Where a candidate achieves 50% or more of the total marks available in a single unit assessment they will pass outcome 2 for that unit.

Assessment standards 2.2 and 2.3 have been removed at National 3 and National 4, having previously been removed at National 5. Candidates are therefore no longer required to produce a short report(s) covering these assessment standards. At National 3 and National 4, Outcome 2 now consists of

only two assessment standards (2.1 Making accurate statements and 2.2 Solving problems).

All centres verified were using the unit assessment support packs produced by SQA. Most centres were using the unit-by-unit approach with some centres using the combined approach. Most 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 are correct and at least one correct response is made for each of the problem solving skills.

At Higher, the majority of centres are using Unit Assessment Support Pack: Test 1 (March 2017) and Test 2 (December 2017).

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 that was helpful during verification. However, in a few cases the additional responses recorded on the marking guidance were incorrect. Centres should therefore ensure that any additional responses added to the marking guidance are appropriate.

Centres are advised to refer to the general marking principles for National 5 and Higher for additional guidance when using unit assessments at these levels.

## **Assessment judgements**

On the vast majority of candidate evidence submitted there were clear marking annotations and clear judgements where the assessment standards had been achieved. The majority of assessment judgements were accurate and reliable. Most centres submitted candidate record sheets to record the assessment decisions which aided the external verification process.

### **National 3**

Centres that were verified were generally found to have made reliable assessment judgements. For assessment standard 1.2, candidates are required to record observations/measurements. When candidates are measuring pH using universal indicator they should be encouraged to record the colour observed as well as the corresponding pH number. For assessment standard 1.3, candidates should process their results and present them in a given format. At this level assessors should give support with format and headings/units as appropriate. For some candidates verified the assessment judgements for these two assessment standards were not always reliable. Assessment judgements for outcome 2 were found to be reliable.

### **National 4**

Centres verified were generally found to have made reliable assessment judgements although on a few occasions there were some issues. In the *Chemical Changes and Structure* unit, question 6(b) in the unit-by-unit approach

unit assessment support pack requires candidates to draw a conclusion from a results table. The marking guidance lists two possible responses. Some centres were deemed to have been lenient in assessing this question. Candidates occasionally answer this question by describing the table of results rather than stating a valid conclusion based on the results. Since this particular question is assessing the problem solving skill of processing, centres may wish to develop processing skills with candidates while delivering the unit. It was also seen that a small number of candidates make a correct statement ('nitrate salts are soluble') followed by an incorrect statement ('all metals are soluble') in answering this question. In this situation a cancelling error would have occurred and no mark should be awarded.

### **SCQF level 5 freestanding units**

Only a small number of centres were verified for level 5 units. While some content changes were made to National 5 for the current session there were no content changes to SCQF level 5 units.

Centres should note that where the marking guidance specifically allocates a mark for units in a calculation, this mark should not be awarded if the units are incorrect or missing. Missing or incorrect units at intermediate stages in a calculation should be ignored.

### **Higher**

Centres verified were generally found to have made reliable assessment judgements although on a few occasions there were some common issues with particular questions.

When assessing the *Chemical Changes and Structure* unit at Higher using the Unit Assessment Support Pack: Package 1, which was published in September 2016 (version 2.1), there were common responses which were being accepted by assessors which were incorrect:

- ◆ Question 1. A correct response for question 1 requires the term 'successful' to be used in terms of an increase in collisions.
- ◆ Question 6. No mark can be awarded when a candidate uses the term 'molecule' or 'molecular'. The use of these terms in addition to 'network' should be treated as a cancelling error.
- ◆ Question 7. Candidates must clearly describe that when graphite sublimates covalent bonds are broken or when fullerene sublimates only weak intermolecular forces or London dispersion forces are broken.

03

## **Section 3: General comments**

In Round 1, centres were selected for verification in Chemistry for units at National 3, National 4 and SCQF level 5, or units at Higher and Advanced Higher. The vast majority of centres were using a valid approach and made reliable assessment judgements.

Almost all centres provided candidate evidence that was internally verified by cross-marking. It was observed that centres often show clearly which judgements are made by an assessor and which are made by the internal verifier since different colours of pen are used. Undertaking internal verification activity in this way aids the process of external verification. However, in a small number of centres it was not clear what the final mark or judgement was. Most centres also included comments and notes on professional dialogue between assessors and internal verifiers and this was very helpful. There were some examples of excellent dialogue leading to an improved understanding of what is an acceptable response to a particular question. Centres that facilitate dialogue between assessors and internal verifiers will help to ensure the most consistent approach to assessment.

It was observed that centres often include marking annotations on candidate evidence which helps support candidates in their misunderstanding and the process of verification.

Although the marking guidance provided in the unit assessment support packs 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 a correct answer is followed by a wrong answer then this should be treated as a cancelling error and no marks should be awarded.