Optional assessment guidance

This guidance is **optional**. You can use this guidance or deliver and assess as outlined in the group award specification.

Group award title and code:	HND in Applied Sciences (SCQF level 8) GK6F 16

The approach you take **must** meet the:

- full evidence requirements for graded units
- national standards

Changes to conditions of assessment and/or evidence requirements

Theory assessments

You can assess all units in the group award outcome-by-outcome. If you use a cut-off score for an examination-based assessment, the cut-off score must be 60% for each assessment. If you assess a single outcome using an examination-based assessment, the cut-off score must also be 60%.

You cannot remediate examination-based assessments. If a candidate does not pass, you must re-assess them using an alternative examination-based assessment.

If selected, you must assess the following units using closed-book assessments:

- Biochemistry: Theory and Laboratory Skills (SCQF level 7) H922 34
- Cell Biology: Theory and Laboratory Skills (SCQF level 7) J2RE 34
- DNA and Genetics (SCQF level 7) J2RF 34
- Dynamic Phenomena (SCQF level 8) J4C0 35
- Electricity and Magnetism (SCQF level 7) H93L 34
- Electronics (SCQF level 8) H93M 35
- Fundamental Chemistry: Theory and Laboratory Skills (SCQF level 7) H92X 34
- Human Body Structure and Function (SCQF level 8) H92C 35
- Inorganic Chemistry: Theory and Laboratory Skills (SCQF level 7) H92Y 34

- Linear Algebra 1 (SCQF level 7) J81W 34
- Linear Algebra 2 (SCQF level 8) J5WF 35
- Linear Algebra 3 (SCQF level 8) J2RD 35
- Mathematics for Science 1 (SCQF level 6) H8XP 33
- Mathematics for Science 2 (SCQF level 7) H8XR 34
- Microbiology: Theory and Laboratory Skills (SCQF level 7) H92G 34
- Organic Chemistry: Theory and Laboratory Skills (SCQF level 7) H933 34
- Physical Chemistry: Theory and Laboratory Skills (SCQF level 7) H936 34
- Physics 2 (SCQF level 7) J5RV 34
- Physics for Life Sciences (SCQF level 7) J5RT 34
- Physics: Light and Optics (SCQF level 8) H93J 35
- Physics Principles: Heat and Thermodynamics (SCQF level 7) H93G 34
- Physics Principles: Mechanics (SCQF level 7) H93H 34
- Protein Structure and Function (SCQF level 8) H92J 35
- Relativity and Quantum Mechanics (SCQF level 8) J676 35
- Spectroscopic and Analytical Techniques (SCQF level 8) H937 35
- Statistics for Science 1 (SCQF level 6) H8XT 33
- Statistics for Science 2 (SCQF level 7) H8XV 34
- Thermodynamics and Kinetics: Theory and Laboratory Skills (SCQF level 8) H938 35
- Transition Metal Chemistry: Theory and Laboratory Skills (SCQF level 8) H939 35

If you want to use different approaches to assessment rather than a traditional closed-book examination, you can amend a maximum of **5** optional credits from closed-book to open-book assessment. Examples include, but are not limited to:

- case studies
- group discussions
- investigations
- presentations
- projects
- supervised assessments covering the application of knowledge and understanding, and problem solving.

If you are using open-book assessments, the following applies.

- You cannot amend any of the units listed above to open-book.
- You must assess **two** sciences at SCQF level 8 under closed-book conditions.
- For any supervised and timed open-book assessments, candidates are restricted to **one page** of summary notes for each outcome, and this must be in their own words.
- You must not use a traditional closed-book examination in open-book supervised conditions.
- The revised assessment task(s) must have the same level of demand as the original assessment.

- You cannot use questions from SQA's assessment support packs (ASPs) in open-book assessments.
- You must split the **5** open-book optional credits into:
  - 2 or 3 credits in year 1
  - 2 or 3 credits in year 2

Note: some open-book assessments used in previous sessions are no longer valid. You must ensure that all open-book assessments meet the criteria listed above.

Practical experiments

We have introduced an abbreviated pro forma. This should avoid candidates being repeatedly assessed on laboratory reporting skills that they have adequately demonstrated competence in the Laboratory Skills for Science Industries (SCQF level 7) H91V 34 unit. It also allows more time to further develop practical skills.

You can only use the abbreviated pro forma when a candidate has demonstrated full competence in the required laboratory reporting skills, as detailed in the Laboratory Skills for Science Industries (SCQF level 7) H91V 34 unit. The revised laboratory reporting requirements for the group award are:

- Laboratory Skills for Science Industries (SCQF level 7) H91V 34
- **Three** full laboratory reports at SCQF level 8, covering two of the three science areas (biology, chemistry and physics)
- All remaining practical experiments can be reported using an abbreviated pro forma, a laboratory diary entry, a pro forma or a full laboratory report.

You can amend the practical requirements for the following units:

- Human Metabolism (SCQF level 8) H92D 35
  - reduce to **two** practical experiments
- Thermodynamics and Kinetics: Theory and Laboratory Skills (SCQF level 8) H938 35
  - reduce to **one** practical experiment

If you are assessing a multistep practical experiment in the following units, you can amend the practical requirements, as shown:

- Organic Chemistry: Theory and Laboratory Skills (SCQF level 7) H933 34
  - reduce to **one** multistep practical experiment
- Main Group Inorganic Chemistry (SCQF level 8) H932 35
  - reduce to **one** multistep practical experiment
- Aromatic Chemistry: Theory and Laboratory Skills (SCQF level 8) H92N 35
  - reduce to **one** multistep practical experiment
- Base-Catalysed and Organometallic Chemistry: Theory and Laboratory Skills (SCQF level 8) H92P 35
  - reduce to **one** multistep practical experiment

A multistep practical experiment must involve a minimum of **three** steps at SCQF level 7 and **four** steps at SCQF level 8. Examples of steps that could contribute towards a multistep practical experiment are:

- Synthesis (which itself could be more than one step) — providing the steps are substantive, for example preparation of a Grignard reagent followed by its reaction with a carbonyl compound could count as distinct steps
- Purification (for example by recrystallisation)
- Determination of melting point
- Running and analysing IR spectrum
- Thin layer chromatography of product

Additional guidance and information

We have guidance on how to use the abbreviated pro forma on SQA's Understanding Standards website.

You can find more information on HNVQ delivery and assessment approaches on SQA's website.