



The following report gives feedback to assist assessors with general issues and trends that have been identified during external moderation of the internally assessed standards in 2023. It also provides further insights from moderation material viewed throughout the year and outlines the Assessor Support available for Chemistry.

Insights

91388: Demonstrate understanding of spectroscopic data in chemistry

Performance overview:

This standard requires students to interpret spectroscopic data to identify an unknown organic molecule.

Evidence that identified discrete aspects of the structure from each of the three spectroscopic techniques (infrared, mass and ^{13}C nuclear magnetic resonance) met the requirements of the standard.

Practices that need strengthening:

Justification of the correct structure by integrating aspects from all three spectroscopic techniques is required for Excellence. Students who did this well integrated the three spectroscopic techniques to show how the aspects consistently align with each other to confirm the molecule's structure.

Tasks that supplied the spectroscopic data without any possible structures allowed students to fully integrate aspects from the three techniques to justify the structure, rather than focusing on ruling out the possible structures.

91393: Demonstrate understanding of oxidation-reduction processes

Performance overview:

This standard requires students to explain both oxidation and reduction for electrochemical and electrolytic processes.

Evidence that clearly described either the change in the oxidation number of the relevant element or the number of electrons lost/gained for oxidation and reduction in both cell processes, as well as referring to the requirement of energy for the electrolytic process and the cell potential/standard reduction potentials for the electrochemical process, met the requirements of the standard.

Practices that need strengthening:

The justification of the spontaneity of electrolytic and electrochemical processes is a key requirement for Excellence. Students who did this well justified the spontaneity of both the electrolytic and electrochemical processes by using either the cell potential calculation or the relative oxidant/reductant strength based on the standard reduction potentials.

Assessor Support:

Online

NZQA's learning management system (Pūtake) offers 150+ easy to access courses, materials and products. These are designed to support teachers, as assessors, to improve their assessment of NCEA standards.

Online, subject-specific or generic, bite-sized learning modules and short courses are now available to complement the traditional face-to-face workshops that NZQA offers. These online courses can be accessed using your Education Sector Logon.

Subject-specific course/workshops available for Chemistry include:

- 91911 - The Significance of the Findings

Online Making Assessor Judgements workshops are also available throughout the year. These workshops are structured to guide teachers to improve their understanding of each grade level by examining several full samples of student work. The following standards are available for enrolment in 2024:

- 91388: Demonstrate understanding of spectroscopic data in chemistry
- 91393: Demonstrate understanding of oxidation-reduction processes

Feedback from teachers for these workshops indicates that more than 74% of participants agreed or strongly agreed that the content in the module was beneficial:

"Although I was a bit skeptical that this was going to provide me with better understanding of the standard (and marking it), I found I've picked up more certainty about making judgements about the work my students might produce. I'm also more secure about guiding them through the selection of their topic and setting it up so that they are able to complete a successful investigation."

Exemplars of student evidence for all standards at each level of achievement are available on the NZQA subject page for Chemistry.

NZQA will continue to provide generic modules and workshops designed to improve general assessment practice. The following modules and workshops will be available in 2024:

- Assessment Approaches, an online workshop exploring different methods of assessment
- Culturally Responsive Assessment
- Assessment Guidance – Reviewing Your Practice
- Tāku Reo, Tāku Mahi – My voice, My work, a guide to managing authenticity
- Why Less is More, a guide to reducing volumes of student evidence
- Integrated Assessment
- Modes of Assessment
- Alternative Assessment
- Acknowledging Sources

"This was great! I liked that I could choose from different scenarios, see how sources are used and the way the student answered the question."

"Reassuring and very thorough. Easy to use/follow."

We will also continue to offer the Transforming Assessment Praxis programme, an online workshop relevant to all subjects which helps assessors learn about re-contextualising assessment resources and collecting evidence in different ways, in order to better meet the needs of students.

Check the NCEA subject pages on the NZQA website regularly, as more online modules, workshops and courses will be added throughout 2024.

Assessor Practice Tool

The Assessor Practice Tool (APT) will be used to support assessors with the new NCEA standards from 2024 onwards. The purpose of the APT is to allow assessors to practice making assessment judgements and immediately receive feedback on their judgements from a moderation panel. The APT will initially have material for some existing Level 3 standards, with moderated samples for the new Level 1 NCEA standard subjects being added as material becomes available. Material for the new Level 2 and Level 3 standards will be added over time, and all material for the old NCEA standards will be archived.

Material is currently available for:

- 91389: Demonstrate understanding of chemical processes in the world around us
- 91393: Demonstrate understanding of oxidation-reduction processes

Workshops and Presentations

The Best Practice Workshops offered by Assessment and Moderation continue to be viewed by the sector as significantly contributing to improved assessor practice:

“I thought the workshop was very clear and helpful, there were a lot of varied examples of ākonga work discussed and opportunity for participants to discuss and ask questions.”

We offer several options of online workshops and presentations for events to support assessors with the assessment of internally assessed standards. These can be subject-specific, or general assessment support, and tailored to the audience. Virtual presentation slots, online workshops or webinars can be requested to provide targeted support to local, regional or national audiences.

To give feedback on this report click on [this link](#).