

NCEA Chemistry Remote Learning and Assessment

Subject matrices are a guide to assessment where remote teaching, learning and assessment have to take place due to a significant event leading to closure of schools over an extended period of time. For example, lockdown, natural disaster, etc.

General Guidance

Where teaching, learning and assessment is done via remote means, students will need access to digital devices and the internet.

Students may need access to specific chemicals and equipment to collect primary data for some standards. This may pose issues regarding health and safety, as well as access and equity for some students. You will need to consider this in your programme planning.

Chemistry Matrix

COLOUR KEY: A colour-coding system to categorise standards according to the advice in this document.

Green:	These standards are suitable for remote teaching, learning and assessment.
Blue:	Teachers can facilitate assessment against these standards by remote learning with guidance (refer to General Guidance above).
Orange:	These standards are suitable for remote teaching and learning provided the candidate has access to appropriate equipment and/or technology. They are not suitable for remote assessment in their current delivery method and/or requirements. Guidance will be provided at the time as required.
Red:	These standards require a collaborative process or interaction with others, and are not suitable for remote teaching, learning and assessment.

Level 2	Level 3
AS 91910 2.1 Internal (4 credits) Carry out a practical investigation into a substance present in a consumer product using quantitative analysis It is suggested that this standard be assessed once students have safe access to suitable chemicals and equipment.	AS 91387 3.1 Internal (4 credits) Carry out an investigation in chemistry involving quantitative analysis It is suggested that this standard be assessed once students have safe access to suitable chemicals and equipment.
AS 91191 2.2 Internal (3 credits) Carry out an investigation into chemical species present in a sample using qualitative analysis It is suggested that this standard be assessed once students have safe access to suitable chemicals and equipment.	AS 91388 3.2 Internal (3 credits) Demonstrate understanding of spectroscopic data in chemistry Suitable for distance learning and assessment using digital platforms for video conferencing, word processing or file-sharing. The evidence can be presented using a variety of modes to clearly demonstrate the student's understanding. For authenticity purposes, each student could be required to use different spectroscopic data for their assessment. Where students are using the same spectroscopic data, teachers could also have regular check points or verbal conferences with students during the assessment period. For specific advice on how to manage authenticity when assessing during uncertain times, please see the Pūtake module: Tāku Reo, Tāku Mahi - My Voice, My Work. Guidance and support are also provided on the NZQA Chemistry page. This includes exemplars, the clarification document, Alternative Evidence Gathering Template, and the National Moderator's Report. Further guidance can also be accessed through Pūtake modules and courses.

Level 2	Level 3
AS 91163 2.3 Internal (3 credits) Demonstrate understanding of the chemistry used in the development of a current technology Suitable for distance learning and assessment using digital platforms for video conferencing, word processing or file-sharing. The evidence can be presented using a variety of modes to clearly demonstrate the student's understanding. For authenticity purposes, each student could be required to select a different current technology for their assessment. Where students are using the same current technology, teachers could also require draft materials to be submitted along with the final assessment evidence to ensure all evidence is the student's own work, and have regular check points or verbal conferences with students during the assessment period. For specific advice on how to manage authenticity when assessing during uncertain times, please see the Pūtake module: Tāku Reo, Tāku Mahi - My Voice, My Work. Guidance and support are also provided on the NZQA Chemistry page. This includes exemplars, the clarification document, Alternative Evidence Gathering Template, and the National Moderator's Report.	AS 91389 3.3 Internal (3 credits) Demonstrate understanding of chemical processes in the world around us Suitable for distance learning and assessment using digital platforms for video conferencing, word processing or file-sharing. The evidence can be presented using a variety of modes to clearly demonstrate the student's understanding. For authenticity purposes, each student could be required to select different chemical processes for their assessment. Where students are using the same chemical processes, teachers could also require draft materials to be submitted along with the final assessment evidence to ensure all evidence is the student's own work, and have regular check points or verbal conferences with students during the assessment period. For specific advice on how to manage authenticity when assessing during uncertain times, please see the Pūtake module: Tāku Reo, Tāku Mahi - My Voice, My Work. Guidance and support are also provided on the NZQA Chemistry page. This includes exemplars, the clarification document, Alternative Evidence Gathering Template, and the National Moderator's Report. Further guidance can also be accessed through Pūtake modules and courses, such as the Assessor Practice Tool.

Level 2		Level 3	
AS 91164	2.4	AS 91390	3.4
External (5 credits)		External (5 credits)	
Demonstrate understanding of bonding, structure, properties and energy changes		Demonstrate understanding of thermochemical principles and the properties of particles and substances	
Teaching and learning towards assessment of this standard is suitable remotely. Assessment is not suitable remotely. The current Assessment Specifications will continue to apply.		Teaching and learning towards assessment of this standard is suitable remotely. Assessment is not suitable remotely. The current Assessment Specifications will continue to apply.	
AS 91165	2.5	AS 91391	3.5
External (5 credits)		External (5 credits)	
Demonstrate understanding of the properties of selected organic compounds		Demonstrate understanding of the properties of organic compounds	
Teaching and learning towards assessment of this standard is suitable remotely. Assessment is not suitable remotely. The current Assessment Specifications will continue to apply.		Teaching and learning towards assessment of this standard is suitable remotely. Assessment is not suitable remotely. The current Assessment Specifications will continue to apply.	
AS 91196	2.6	AS 91392	3.6
External (4 credits)		External (5 credits)	
Demonstrate understanding of chemical reactivity		Demonstrate understanding of equilibrium principles in aqueous systems	
Teaching and learning towards assessment of this standard is suitable remotely. Assessment is not suitable remotely. The current Assessment Specifications will continue to apply.		Teaching and learning towards assessment of this standard is suitable remotely. Assessment is not suitable remotely. The current Assessment Specifications will continue to apply.	

Level 2	Level 3
AS 91167 2.7 Internal (3 credits) Demonstrate understanding of oxidation-reduction Suitable for distance learning and assessment using digital platforms for video conferencing, word processing or file-sharing. The evidence can be presented using a variety of modes to clearly demonstrate the student's understanding. For authenticity purposes, each student could be required to use different oxidation-reduction reactions for their assessment. Where students are using the same oxidation-reduction reactions, teachers could also have regular check points or verbal conferences with students during the assessment period. For specific advice on how to manage authenticity when assessing during uncertain times, please see the Pūtake module: Tāku Reo, Tāku Mahi - My Voice, My Work. Guidance and support are also provided on the NZQA Chemistry page. This includes exemplars, the clarification document, Alternative Evidence Gathering Template, and the National Moderator's Report.	AS 91393 3.7 Internal (3 credits) Demonstrate understanding of oxidation-reduction processes Suitable for distance learning and assessment using digital platforms for video conferencing, word processing or file-sharing. The evidence can be presented using a variety of modes to clearly demonstrate the student's understanding. For authenticity purposes, each student could be required to use different oxidation-reduction processes for their assessment. Where students are using the same oxidation-reduction processes, teachers could also require draft materials to be submitted along with the final assessment evidence to ensure all evidence is the student's own work, and have regular check points or verbal conferences with students during the assessment period. For specific advice on how to manage authenticity when assessing during uncertain times, please see the Pūtake module: Tāku Reo, Tāku Mahi - My Voice, My Work. Guidance and support are also provided on the NZQA Chemistry page. This includes exemplars, the clarification document, Alternative Evidence Gathering Template, and the National Moderator's Report. Further guidance can also be accessed through Pūtake modules and courses, such as the Assessor Practice Tool.