

NCEA Technology CMT/Processing 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

If students have an internet connection, there are a number of options available for collaborative working. For example, they may be able to use video conferencing, a cloud-based platform for file sharing, or a learning management system.

Care must be taken when students are interacting online to ensure their safety.

Remote working using digital technology may pose issues around access and equity for some students, which you will need to consider in your programme planning.

For the standards that have a practical component and require access to specialist equipment, tools and materials, assessment will need to be completed upon return to school.

Supporting Evidence

Evidence for these standards could be collected in a number of ways:

- Using cameras to capture or record what the students are saying.
- Annotations of images. Take photos, print them or annotate digitally.
- Video with voiceover using software for screen-casting or recording.
- Using e-portfolio platforms to collate digital evidence.
- Written portfolios.

For standards that have a research and/or stakeholder feedback component, rather than presenting large amounts of gathered research or stakeholder surveys, evidence could be provided that summarises the findings along with what this means for the brief or conceptual design.

Technology CMT/Processing 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 91344	2.20	AS 91620	3.20
Internal (6 credits)		Internal (6 credits)	
Implement advanced procedures using resistant materials to make a specified product with special features		Implement complex procedures to integrate parts using resistant materials to make a specified product	
Students may be able to research suitable alternative techniques to achieve advanced procedures and develop the order of construction. This may enable the student to do focused trialling on return to the classroom.		Students may be able to research suitable alternative techniques to achieve advanced procedures and develop the order of construction. This may enable the student to do focused trialling on return to the classroom.	
As it requires specialist equipment and materials, it is suggested that this standard be assessed once students have safe access to materials/resources/specialist equipment.		As it requires specialist equipment and materials, it is suggested that this standard be assessed once students have safe access to materials/resources/specialist equipment.	
Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Generic Technology page.		Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Generic Technology page.	
For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.		For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.	

Level 2		Level 3	
AS 91345	2.21	AS 91621	3.21
Internal (6 credits)		Internal (6 credits)	
Implement advanced procedures using textile materials to make a specified product with special features		Implement complex procedures using textile materials to make a specified product	
Students may be able to research suitable alternative techniques to achieve special features and develop the order of construction.		Students may be able to research suitable alternative techniques to achieve complex features and develop the order of construction. This may enable the student to do focused trialling on return to the classroom.	
This standard may require specialist equipment and materials. It is suggested that this standard be assessed once students have safe access to suitable materials, equipment and tools to fabricate the specified product.		This standard may require specialist equipment and materials. It is suggested that this standard be assessed once students have safe access to suitable materials, equipment and tools to fabricate the specified product.	
Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page.		Support can also be found in the assessment resources on TKI and in the clarification documents and exemplars on the NZQA Technology page. The Pūtake module: Making Assessor Judgements – Construction and Mechanical Technologies provides additional guidance.	
For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.		For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.	

Level 2	Level 3
AS 91347 2.22 Internal (4 credits) Demonstrate understanding of advanced concepts used to make products Where students have access to research materials, this standard is suitable for distance learning and assessment using digital platforms such as learning management systems, video conferencing or file sharing. Students may be able to gain feedback on the development of their report using collaboration tools to share with their teacher. Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.	AS 91622 3.22 Internal (4 credits) Implement complex procedures to make a specified product using a Computer Numerical Controlled (CNC) machine This standard may require specialist equipment and materials. It is suggested that this standard be assessed once students have safe access to suitable materials, equipment and tools to fabricate the specified product. Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.

Level 2	Level 3
AS 91346 2.23 Internal (4 credits) Demonstrate understanding of advanced concepts used to make textile products Where students have access to research materials, this standard is suitable for distance learning and assessment using digital platforms such as learning management systems, video conferencing or file sharing. Students may be able to gain feedback on the development of their report using collaboration tools to share with their teacher. Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.	AS 91623 3.23 Internal (4 credits) Implement complex procedures to create an applied design for a specified product Students may be able to develop the complex design and research suitable alternative techniques remotely, to apply the design. Note: these techniques do need to be trialled. The research could inform the trialling once the student returns to school. This standard may require specialist equipment and materials. It is suggested that this standard be assessed once students have safe access to suitable materials, equipment and tools to produce the applied design. Support can also be found in the assessment resources on TKI and in the clarification documents and exemplars on the NZQA Technology page. The Pūtake module: Making Assessor Judgements – Construction and Mechanical Technologies provides additional guidance. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.

Level 2	Level 3
AS 91348 2.24 Internal (3 credits) Demonstrate understanding of advanced concepts related to structural frameworks Where students have access to research materials, this standard is suitable for distance learning and assessment using digital platforms such as learning management systems, video conferencing or file sharing. Students may be able to gain feedback on the development of their report using collaboration tools to share with their teacher. Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.	AS 91624 3.24 Internal (3 credits) Demonstrate understanding of a structural system Where students have access to research materials, this standard is suitable for distance learning and assessment using digital platforms such as learning management systems, video conferencing or file sharing. Students may be able to gain feedback on the development of their report using collaboration tools to share with their teacher. Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.

Level 2	Level 3
AS 91349 2.25 Internal (3 credits) Demonstrate understanding of advanced concepts related to machines Where students have access to research materials, this standard is suitable for distance learning and assessment using digital platforms such as learning management systems, video conferencing or file sharing. Students may be able to gain feedback on the development of their report using collaboration tools to share with their teacher. Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.	AS 91625 3.25 Internal (3 credits) Demonstrate understanding of a complex machine Where students have access to research materials, this standard is suitable for distance learning and assessment using digital platforms such as learning management systems, video conferencing or file sharing. Students may be able to gain feedback on the development of their report using collaboration tools to share with their teacher. Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.

Level 2		Level 3	
AS 91350	2.26	AS 91626	3.26
Internal (4 credits)		Internal (6 credits)	
Make advanced adaptations to a pattern to change the structural and style features of a design		Draft a pattern to interpret a design for a garment	
This standard may require specialist equipment and materials. It is suggested that this standard be assessed once students have safe access to suitable materials, equipment and tools to produce the pattern and fabricate the garment.		This standard may require specialist equipment and materials. It is suggested that this standard be assessed once students have safe access to suitable materials, equipment and tools to draft the pattern and fabricate the garment.	
Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page.		Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page.	
For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.		For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.	

Level 2		Level 3	
AS 91351	2.60	AS 91643	3.60
Internal (4 credits)		Internal (6 credits)	
Implement advanced procedures to process a specified product		Implement complex procedures to process a specified product	
This standard may require specialist equipment and materials. It is suggested that this standard be assessed once students have safe access to suitable materials, equipment and tools to process the specified product.		This standard may require specialist equipment and materials. It is suggested that this standard be assessed once students have safe access to suitable materials, equipment and tools to process the specified product.	
Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page.		Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page.	
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Level 2	Level 3
AS 91352 2.61 Internal (4 credits) Demonstrate understanding of advanced concepts used in processing Where students have access to research materials, this standard is suitable for distance learning and assessment using digital platforms such as learning management systems, video conferencing or file sharing. Students may be able to gain feedback on the development of their report using collaboration tools to share with their teacher. Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.	

Level 2	Level 3
AS 91353 2.62 Internal (4 credits) Demonstrate understanding of advanced concepts used in preservation and packaging for product storage Where students have access to research materials, this standard is suitable for distance learning and assessment using digital platforms such as learning management systems, video conferencing or file sharing. Students may be able to gain feedback on the development of their report using collaboration tools to share with their teacher. Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.	AS 91644 3.62 Internal (4 credits) Demonstrate understanding of combined preservation mechanisms used to maintain product integrity Where students have access to research materials, this standard is suitable for distance learning and assessment using digital platforms such as learning management systems, video conferencing or file sharing. Students may be able to gain feedback on the development of their report using collaboration tools to share with their teacher. Further support can be found in the assessment resources on TKI and in the clarification document and exemplars on the NZQA Technology page. For authenticity purposes, check points and verbal conferencing with students during the assessment period is recommended. 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.