

This newsletter and the Secondary Student Achievement Professional Learning and Development initiative is funded by the Ministry of Education. The providers are The University of Auckland and Te Tapuae o Rehua consortium.

# National Newsletter: Technology

## Information and resources for middle leaders in secondary schools | Term 3 2014

Kia ora, Tālofa, Mālō e lelei, Kia orana, Bula vanaka, Fakaalofa lahi atu, Talofa ni, and greetings to you all.

In this issue we cover:

- A reminder about authenticity for external assessment as the year rapidly moves towards finalising external submissions
- The range of essential materials for secondary technology learning area. This was based on the number of questions regarding where to source information during the recent National workshops as well as some general links for literacy and ESOL

Ngā mihinui  
Malcolm and Cheryl  
National Co-ordinators - Technology

## Authenticity

Adapted from <http://www.nzqa.govt.nz/providers-partners/assessment-and-moderation/assessment-of-standards/generic-resources/authenticity/>

### What is authenticity

Authenticity is the assurance that evidence of achievement produced by a learner is their own. While this is a student's responsibility teachers also have a significant role to play in assuring structure and formative assessment and recognizing issues of authenticity during preparation of materials.

### Strategies teachers can use to ensure authenticity include:

- modifying assessments available from publicly available sources
- changing the context of the assessment from year to year and embedding the learning in engaging contexts that are over the course of the programme of learning
- supervising the research process by including regular checkpoints
- requiring plans, resource material and draft work to be submitted with the final product
- keeping on-going work on site
- frequent conferencing to confirm a student's understanding
- being familiar with or controlling the resources available
- controlling group work by breaking the task into group and individual components
- Requiring a signature on an authenticity statement to highlight the issue for both parents and students
- Have regular feedback and review points in the preparation phase of the report.

### Students are expected to

- Submit their own work to reflect their understanding of the context or topic
- Reference work appropriately. All information from sources other than the student's own work must be acknowledged at the place in the work that the information is used
- Interpret and rewrite the information in their own words and make meaning from synthesised material
- relate the information to a specific context or example
- comment meaningfully on the information to demonstrate their understanding.

## Contacts

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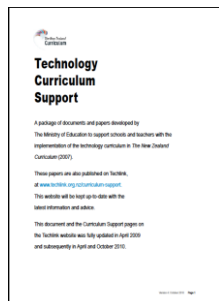
# Curriculum related resources- TKI

## The NZC

The starting point for all things to do with the NZ curriculum.  
<http://nzcurriculum.tki.org.nz/>

## Technology Curriculum Support

<http://technology.tki.org.nz/Technology-in-the-NZC/Publications/Technology-curriculum-support-documents>



The Technology Curriculum Support document (October 2010 version) contains the explanatory papers that give background on the eight components of technology, and the indicators of progression for these components. The indicators have the achievement objective, teacher guidance, and indicators of what students should be able to demonstrate at each curriculum level.

## Learning objectives for the specialist skills and knowledge strands

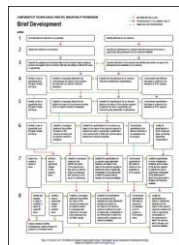
<http://technology.tki.org.nz/Technology-in-the-NZC/What-does-learning-in-technology-look-like/Indicators-Learning-Objectives>



Learning objectives, teacher guidance, and indicators of progression are available for the specialist skills and knowledge components of technology, but note this information is only available at curriculum levels 6, 7, and 8 to align with NCEA. Teachers can use this to backwards map the requirements for junior programmes.

## Progression diagrams

<http://technology.tki.org.nz/Technology-in-the-NZC/What-does-learning-in-technology-look-like/Progression-Diagrams>



The progression diagrams show the indicators of progression visually showing how each component progresses from level to level and the relationship between aspects within a level. Note in this format the teacher guidance is missing so it is useful to use the progression diagrams and the indicators of progression together.

## The teaching and learning guide

<http://seniorsecondary.tki.org.nz/Technology/Achievement-and-learning-objectives/Level-8>

Level 8 achievement and learning objectives	Indicator codes
<b>Curriculum strands (C)</b>	
<b>Technological practice (TP)</b>	
1. Skill development	TP.1.1, TP.1.2
2. Design, manufacture and evaluation	TP.2.1, TP.2.2
<b>Technological knowledge (TK)</b>	
1. Technological practice (TP)	TP.1.1, TP.1.2
2. Technological knowledge (TK)	TK.1.1, TK.1.2
3. Technological innovation (TI)	TI.1.1, TI.1.2
<b>History of technology (HT)</b>	
1. Innovation in history	HT.1.1, HT.1.2
2. Innovation in the future (IF)	IF.1.1, IF.1.2
<b>Manufacturing (M)</b>	
1. Innovation in manufacturing (IM)	IM.1.1, IM.1.2
2. Innovation in manufacturing processes (IP)	IP.1.1, IP.1.2
<b>Construction and mechanical technologies (CMT)</b>	
1. Construction and mechanical technologies (CMT)	CMT.1.1, CMT.1.2

Use the navigation on the right side of the page to find the component of technology you are interested in and find teacher guidance, key messages, and ideas.

## Technology Online – 'Technology in the NZC' tab

<http://technology.tki.org.nz/Technology-in-the-NZC>

The 'Technology in the NZC' tab contains most of the material mentioned above, plus other links and resources. Also explore the rest of the Technology Online website for case studies, teaching snapshots, and much more.

## Useful links on TKI

### Secondary Middle Leaders PLD

<http://nzcurriculum.tki.org.nz/Secondary-middle-leaders/Professional-learning-and-development>



This page outlines the various PLD aspects across New Zealand for Secondary Middle Leaders, including the facilitators, regions and the e-newsletters that have been sent to schools.

### Senior Secondary Guides Technology

<http://seniorsecondary.tki.org.nz/Techology>

Useful information about the learning area, its structure, and key points for teaching across the disciplines



### Technology Online

An essential resource portal for teaching guidance, curriculum support and snapshots and case studies



<http://technology.tki.org.nz/>

# Resources for internally assessed standards- NZQA

## The subject resources pages

The starting place for all NCEA resources. Part way down the page is the link to resources for internally assessed standards.

Technology subject resources at

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/technology/levels/>

Design and Visual Communication (Graphics) subject resources at

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/graphics-dvc/levels/>

Computing and Digital Technologies subject resources at

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/computing-digital-technologies/levels/>

## Clarifications

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/technology/clarifications/>

Technology - clarifications

Show: Technology homepage

### Contents

- General introduction
- Level 1
- Level 2
- Level 3
- Unit standards
- Implement standards

Clarification documents unpack the requirements of the achievement criteria where issues have been identified by moderators through external moderation. Note there are separate clarifications pages for Technology, DVC, and Computing/Digital Technologies – all accessible through the relevant subject resources page.

## Assessment resources

<http://ncea.tki.org.nz/Resources-for-Internally-Assessed-Achievement-Standards/Technology>

NZQA approved assessment resources

Standards	Assessment resources	Vocational Pathway assessment resources
Technology 1.1 (AS91044)	<a href="#">1.1 Aa2</a> (Word, 152 KB) <a href="#">1.1 Bb2</a> (Word, 105 KB)	<a href="#">Outdoor dining - C1</a> (Word 2007, 503 KB) <a href="#">Zagouff - MT</a> (Word 2007, 506 KB) <a href="#">Farm security - P1</a> (Word 2007, 506 KB) <a href="#">Kitchen safety - S1</a> (Word 2007, 507 KB)

Assessment tasks and schedules for the internally assessed standards – 'NZQA Approved'. Note the extra column with Vocational Pathway assessment resources. Teachers are expected to customise and contextualise these for their students rather than just print them off and hand them out!

## Moderators newsletters

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/technology/moderator-newsletters/april-2014/>



A combined newsletter from the moderators for Technology, DVC, and Computing/Digital Technologies. Teachers who have 'liked' their subject Facebook page will receive an alert in their newsfeed when new newsletters or other resources have been published.

## Conditions of assessment

<http://ncea.tki.org.nz/Resources-for-Internally-Assessed-Achievement-Standards/Technology/Level-1-Technology>



National Certificate of Educational Achievement  
TAUMATA MĀTAURANGA Ā-MOTU KUA TĀEA

NCEA Level 1 Technology  
Conditions of Assessment

The assessment conditions for internally assessed standards, covers such things as whether evidence must be in writing or whether oral evidence is acceptable. Available for level 1, level 2, and level 3 on the appropriate page for each level.

## Technology in the NZC

The curriculum support area of Technology online



<http://technology.tki.org.nz/Technology-in-the-NZC>

Please email any feedback to [technology@tki.org.nz](mailto:technology@tki.org.nz)

The team are always pleased to hear from teachers in the field to help shape this resource portal

## Technology in the News –

Looking for a snippet or an inspirational piece to energize your students? Try this section of the Technology Online site

<http://technology.tki.org.nz/Technology-in-the-news>

There is also a useful archive of news items



## Some General TKI Links ESOL Online

<http://esolonline.tki.org.nz>, <http://deliver.tki.org.nz/static/1758.html>

## Secondary Literacy online

<http://literacyonline.tki.org.nz/Literacy-Online/Secondary-Literacy>

## Secondary Literacy online- Technology exemplar

This annotated exemplar helps teachers to support the literacy and language learning of students in technology.

<http://literacyonline.tki.org.nz/Literacy-Online/Secondary-Literacy/Teacher-needs/Literacy-in-the-learning-areas2/Annotated-student-exemplars/Annotated-exemplar-Technology>

## Success for All

<http://www.ero.govt.nz/National-Reports/Including-Students-with-High-Needs-June-2010/>

<http://www.ero.govt.nz/Review-Process/National-Evaluation-Topics>, <http://www.minedu.govt.nz/NZEducation/EducationPolicies/SpecialEducation/OurWorkProgramme/SuccessForAll.aspx>



# NCEA externals and scholarship- NZQA

## The subject resources pages

The starting place for all NCEA resources. Part way down the page is the link to resources for externally assessed standards, and further down is the link to scholarship.

Technology subject resources at

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/technology/levels/>

Design and Visual Communication (Graphics) subject resources at

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/graphics-dvc/levels/>

For Computing and Digital Technologies externally assessed standards see the Technology subject resources page.

## The assessment specifications

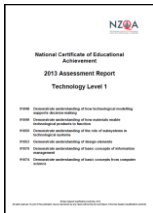
<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/technology/levels/>



Published each year (in December the year before, and updated if required in March of the current year). Assessment specifications contain crucial material about the type of evidence required for external assessment and guidance about such things as authenticity. Assessment specifications for DVC are accessed via the DVC subject resources page.

## Assessment reports and schedules

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/technology/levels/>



Published each year after the period for reconsiderations is over. The assessment report and schedule should be seen as essential reading in preparation for the next round of external assessment. Assessment reports and schedules for DVC are accessed via the DVC subject resources page.

## Exemplars

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/technology/external-exemplars/>

Technology - external exemplars

Show: Technology Homepage

### Level 1

- 91048 exemplars 2013 (ZIP, 39MB)
- 91049 exemplars 2013 (ZIP, 55MB)
- 91050 exemplars 2013 (ZIP, 1.1MB)
- 91053 exemplars 2013 (ZIP, 9.4MB)
- 91070 exemplars 2013 (ZIP, 2.3MB)
- 91074 exemplars 2013 (ZIP, 3.4MB)

For technology look for the zip files with 2013 in the name. These are the latest exemplars sourced from marking student work in November 2013. For level 2 there are also exemplars from 2012, and for level 1 from 2011 and 2012. For DVC exemplars see the DVC subject resources page.

## Technology scholarship

<http://www.nzqa.govt.nz/qualifications-standards/awards/scholarship/scholarship-subjects/scholarship-technology/>

The scholarship standard, assessment specifications, markers reports, and exemplars are all at this link. Also see the webcast on technology scholarship (Refer to page 1 for the link).

## Design and Visual Communication scholarship

All the resources related to DVC scholarship

<http://www.nzqa.govt.nz/qualifications-standards/awards/scholarship/scholarship-subjects/scholarship-graphics/>

## Useful links



The Youth Guarantee initiative provides young people more choices, ways, and places to achieve NCEA level 2 or equivalent. <http://youthguarantee.net.nz/>



This site features up-to-date examples of biotechnology in practice and supporting classroom resources. <http://www.biotechlearn.org.nz/>



The New Zealand website for information about careers in technology, engineering and science. <http://www.futureintech.com/>

## Subject Association links & partnerships



<http://wp.nzgtta.co.nz/>



<http://www.hettanz.org.nz/>



<http://nzacditt.org.nz/>



<http://www.tenz.org.nz/>



<http://www.techlink.org.nz/index.cfm>