

Secondary Technology newsletter

For leaders of technology in secondary schools in the Northern and Central North regions | Term 3 | 2013

Kia ora koutou

We do hope you all had a relaxing break and are refreshed ready for a busy term ahead.

Authenticity is a crucial issue in technology education, especially related to the externally assessed standards. See pages two and three of this newsletter for some suggestions to help you review what you have done to prepare your students for external assessment.

The TESAC technology conference 'Connect - putting the pieces together' is nearly full. If you are intending to go to this conference in the October school holidays you need to register soon! See the details on page four.

Page five has some reminders about crucial sources of information related to the internally assessed standards. Have you checked the 'Clarifications of Standards' link lately? What about the new format moderators newsletters? Or the latest exemplars? See page five for more details.

Have you seen the July issue of t-news in the new web-based format? If not details of how to access it (and other sources of information) are on page six of the newsletter.

Wishing you all a successful and productive term three.

Nga mihinui
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<p>TS Technology Wiki</p> <p>technologynz.wikispaces.com/</p> 	<p>TS Technology Webcasts</p> <p>http://tinyurl.com/TeamSolutionsPLD</p> 
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Technology webcasts

There are a series of webcasts that the Team Solutions technology facilitators have prepared on various aspects related to technology education. Go to <http://tinyurl.com/TechnologyTS> and then choose 'Technology' from the list on the left hand side, then choose the webcast you are interested in. You may need to install a plugin for your browser to be able to view the webcasts (Microsoft Silverlight player). When you click on one of the webcasts there will be an onscreen prompt to tell you if you need to install the plugin.

Technology Scholarship 2013

In this webcast Lesley Pearce explains the student attributes and evidence required to be successful at the 2013 aligned technology scholarship.

Exploring a context and issue.

Beth McCrystal illustrates the importance of exploring a context and issue within brief development. This presentation aims to develop a better understanding around the importance of exploring a context in order to select an authentic issue.

Fitness for Purpose: in the broadest sense.

In this webcast Malcolm Howard introduces the concept of 'Fitness for purpose in the broadest sense'. This is a key concept at level 8 of the New Zealand Curriculum and is specifically mentioned in a number of level 3 achievement standards and in the technology scholarship standard.

Washing-line Strategy

In this webcast Lesley Pearce looks at one effective strategy to engage students in collaborative learning around the process of brief development.

Literacy and Language Strategies

This webcast focuses on subject specific literacy. In this presentation Malcolm Howard shares some literacy and language strategies to assist students with writing in technology. The aim of the webcast is to provide ideas of ways teachers can support students writing reports for the externally assessed standards, but it is also relevant for any piece of writing in technology.

Authenticity

Authenticity guidance from:

<http://www.nzqa.govt.nz/about-us/publications/newsletters-and-circulars/assessment-matters/authenticity-requirements-for-non-examination-external-assessment/>

For authenticity purposes teachers need to verify that:

- Candidate submissions are developed from a programme of teaching and learning derived from Level 6, 7 or 8 of the New Zealand Curriculum.
- Candidates are instructed that text, music scores or imagery, (for example, digital photographs, elements of website, screen shots or billboards), reproduced from external sources, must be referenced at the point of use in the submission.
- Student work relates to a context used or negotiated in the teaching and learning programme.
- Candidate work is sighted, dated and signed in progress by the instructing teacher.

In your department do you have a policy to ensure student work is authentic, it is not copied but is the student's "voice"

The following check list could help.

Step 1: Authenticate the student report

1. Does the candidate's report reflect the specific context of the course I taught at the appropriate level of the Technology Learning area of the NZC?
2. If not, how do I know the report is the candidate's work?
3. Is the candidate work in the candidate's words?
4. If not, how do I know the report is the candidate's work?
5. Why would a marker believe this is the work of a candidate?
6. Does the candidate's report have significant differences to the work of other candidates in the submission from my students?
7. If not, what indicates that the work is the candidate's work?
8. Has the candidate used supplied answers to fill in gaps in a template?
9. If so, when you ignore these supplied answers, is there **clearly sufficient evidence** to demonstrate understanding?
10. Has the candidate copied and pasted information without modification into the report.
11. If so, when you ignore the copied information is there **clearly sufficient evidence** to demonstrate understanding?
12. Has the candidate copied and pasted information with minimal modification e.g. substituting words?
13. If so, when you ignore the copied information is there **clearly sufficient evidence** to demonstrate understanding?

Step 2: Analyse the report contents

In the candidate work, can you find the place(s) where the candidate: (insert appropriate criteria definition from the standard) e.g. 91050 achieved criteria definitions

- identifying subsystems in technological systems
- describing the role of subsystems in technological systems
- describing how subsystems work together to allow technological systems to function.

As each place is found ask:

- A. Is there **clearly** sufficient evidence at curriculum level in the report?
- B. Is the evidence clear so that a marker who does not know the candidate will recognise it?

Links and resources

Literacy resource for 91358 (2.5)

There are new resources for secondary teachers on the Literacy online website, [annotated exemplars](#) for Mathematics & Statistics, Biology, History, P.E. and Technology. These five exemplars of student work have been annotated to show how teachers might identify features of literacy and language from student writing, and provide feedback within each subject area. Whilst the exemplars have been sourced from five different senior subjects, the identified features and responses may be relevant across other learning areas. The annotations are made under the headings of Structure, Audience and Purpose, Ideas and Information, Language and Accuracy. These notes provide assistance in supporting students to develop their writing at NCEA Level 2.

The technology exemplar is AS 91358 (2.5)

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

The Māori Technology glossary

The Māori Technology glossary has been a collaboration between Steve Thornton from Trident High School and Te Taura Whiri i te Reo Māori – The Māori Language Commission to translate common technology terms into words in te reo Māori.



<http://technology.tki.org.nz/Resources/Teaching-snapshots/Middle-Years-7-10/Maori-Technology-glossary>

External Assessment Best Practice Checklist

The checklist below could be used by an HOD or by individual teachers as a way of ensuring thorough preparation of students ready for external assessment.

External Assessment Best Practices Checklist		
Department:		
Course Identification:		
Teacher:		
To prepare candidates for external assessment in Technology, I have:		
<ul style="list-style-type: none"> prepared and scheduled a course of instruction derived from the appropriate curriculum level. 	No	Yes
<ul style="list-style-type: none"> NCEA Level 1 New Zealand Curriculum level 6 NCEA Level 2 New Zealand Curriculum level 7 NCEA Level 3 New Zealand Curriculum level 8 		
<ul style="list-style-type: none"> read the latest version of the achievement standards that will be for used for summative assessment. 		
<ul style="list-style-type: none"> completed a Marking Outcomes Reflective Analysis on the previous submission. 		
<ul style="list-style-type: none"> read and understood the Assessment Specifications published in December and updated in March 		
<ul style="list-style-type: none"> read and understood the Assessment Reports from previous years 		
<ul style="list-style-type: none"> read the latest Assessment Reports from previous year's assessment published in April 		
<ul style="list-style-type: none"> read the Assessment Exemplars from previous assessment published in April 		
<ul style="list-style-type: none"> developed an Assessment Map that relates the curriculum based course to the criteria of each of the standards to be assessed 		
<ul style="list-style-type: none"> developed a Specific Assessment Guide that provides a framework to assist the candidate to be able to structure the material to be presented for external assessment. 		
Signed	Teacher:	
	HOD:	
Date(s)		

Links and resources...

Spatial Design

A recent Youtube video on an interview about Zaha Hadid, although long, has a great deal of personal insight into her innovative designs. Zaha Hadid Architects (London) has become a world leader in urbanism, architecture and design through projects that integrate man-made systems and preexisting topography.



<https://www.youtube.com/watch?v=DhHiYU3kl0E>

Resources for year 1-10

The Beacon Practice Technology Project (Phase 3) The focus in the project this year is on the [Technological Knowledge](#) and [Nature of Technology](#) strands of Technology in the *New Zealand Curriculum* (2007) in Years 1-10, with an emphasis on culturally responsive pedagogy, innovative environments and supportive relationships. Resources developed by the teachers will be shared on the Technology online website.

<http://technology.tki.org.nz/Resources/Beacon-Practice-Technology-Project-Phase-3>

Technological Products in Food Technology

Year: 11
 Curriculum level: Level 4, Level 5
 School: Riccarton High School
 Teacher: Gillian Mandley
 Strand: Technological Knowledge
 Curriculum component: Technological



Technology Education Conference

Connect - putting the pieces together



Mon, 07/10/2013 - 8:30am - Wed, 09/10/2013 - 5:40pm

This is a conference for Technology educators (in Primary, Secondary and Tertiary sectors) involved in Design and Visual Communications / Graphics; Manufacturing and Processing Technologies; Construction and Mechanical Technologies; Digital Technologies and Computer Science; Food Technology and Home Economics; Textiles and Soft Materials.

NZACDITT, HETTANZ, NZGTTA and TENZ working together to deliver a conference with: -

- 'take home' value
- contextualised learning
- culturally responsive pedagogy for 21st century classrooms
- course and programme planning development opportunities
- industry and business sector experts, presentations and visits
- latest research findings
- leadership development
- practical workshops
- time for networking and sharing 'stories' from the classroom
- registered teacher criteria evidence
- updates and feedback on vocational tertiary pathways
- and much more.....

An opportunity to focus on future-oriented views of knowledge and learning; and to explore the position of Technology in 21st century education.

Meet and greet and early registration check in 4 - 6pm on Sunday 6th October.

Conference begins at 9.00am on 7th October so travel will need to be booked to suit.

Registration fee includes conference plus catering - morning tea, lunch, afternoon tea for three days and conference dinner.

Application form found here. Invoice will be sent direct to your school
http://www.trcc.org.nz/trcc_2008/doormouse/main/trcc_2008_main.php?pid=865283&act_id=165

	Earlybird Fee*	Full Fee
Liveout	\$ 350.00	\$ 450.00

* Earlybird Fee applies if fee is paid by 23rd Aug 2013, otherwise Full Fees apply.

Registrations for this course close 6th Sep 2013

Various resources...

Kickstarter website

Kickstarter is a website that helps people to fund creative projects. Investigate creative projects from around the world (and most recently New Zealand with Yolkr). This website could be used with students to show aspects of product development, modeling, and/or prototyping. Anyone can launch a project on Kickstarter as long as it meets specific guidelines. Check out:

<http://www.kickstarter.com/discover>

Have a look at the Yolkr which is a product developed by Hamish Dobbie of Auckland.



<http://www.kickstarter.com/projects/849939509/yolkr-the-incredible-egg-yolk-separator?ref=live>

Or explore some other kickstarter projects such as:

[Food Huggers](#)

[The Buccaneer® - The 3D Printer that Everyone can use!](#)

Food intolerance and allergies

Food intolerance and allergies have different causes but similar symptoms. Read a description of what causes these conditions and how they are diagnosed and treated.

http://www.biotechlearn.org.nz/the-mes/food_intolerance_and_allergies

Test your senses

Does food taste the same if you can't smell it? Try it and see! (suitable for younger primary students).

<http://www.planet-science.com/categories/under-11s/our-bodies/2011/02/test-your-senses.aspx>

Key resources for the internals

Clarifications of standards

A key source of information for teachers about the internally assessed standards is the 'Clarifications of Standards' page on the subject home page

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

Resources for internally assessed standards		
National Moderator Report	All levels	
Moderator Newsletters	All levels	
Clarifications of Standards	All Levels	
Exemplars of student work	All Levels	
TKI resources & Conditions of Assessment	Level 1	Level 2 Level 3

The current list (July 2013) of the newly aligned standards where a clarification has been issued is:

Level one:

Technology: 91044, 91045, 91046, 91047, 91057, 91058, 91060

DVC: 91066, 91067, 91068, 91069

Digital: 91071, 91072, 91073, 91077, 91078, 91079, 91080, 91081

Level two:

Technology: 91354, 91355, 91356, 91357, 91362, 91364, 91345, 91346, 91347, 91348, 91349, 91350, 91351, 91352, 91353, 91361, 91365, 91366

DVC: 91340, 91341, 91342, 91343

Digital: 91368, 91369, 91370, 91374, 91375, 91376

Level three:

Technology: 91608, 91609, 91610, 91611, 91615, 91616, 91618, 91619, 91620, 91621, 91622, 91623, 91643

DVC: 91628, 91629, 91630

Digital: 91633, 91637, 91639, 91640

Moderators newsletters

Another key source of information for teachers about the internally assessed standards is the 'Moderators newsletters' page on the subject home page.

The new format newsletter is a combined publication from the technology moderators, the DVC/Graphics moderators, and the Computing/Digital moderators. The latest issue is June 2013

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/technology/moderator-newsletters/june-2/>

Contents of this June newsletter include Level 2 trends, Learning area specific trends (Level 2), Technology panel meeting, Best Practice Workshops, and Cool websites.

Exemplars for internally assessed standards

An increasing number of annotated exemplars are being published on the subject resources page on the NZQA website

For technology go to

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

For Computing/Digital technologies or DVC (Graphics) go to the relevant subject resources page.

Various resources and links

Product design



Looking for authentic design projects/contexts for your students? Investigate what young designers are doing around the world. One young designer worth watching is Lee Grieve. He was recently awarded the 'Brightest Spark' award by Marcus Hirst of Ron Arad Associates, recognising the highest standard of work within Sheffield Hallam University.



The smoke reduces the chance of the beekeeper being stung as the bees are tricked into preparing to evacuate the hive.

-SMOKA- combines ultrasonic vapourising technology (similar to e-cigarettes) with the alternative liquid smoke solution, something that is already readily available from most beekeeping suppliers. It gives a steady stream of bee friendly cool mist with the same calming effects as smoke. The compact, efficient and reliable design makes it ideal for commercial beekeepers on the move.

Follow his other products on his website:

leegrievedesign.com

Sources of information

Techlink website is back with a different focus

An all new Techlink website is now online (www.techlink.org.nz). The aim of the new Techlink website is to showcase examples of teaching and learning in Technology from early childhood through to vocational pathways into industry and enterprise. With TENZ support Techlink now hosts t-news, which aims to communicate what's happening in Technology education to those working in the learning area.

Latest t-news out

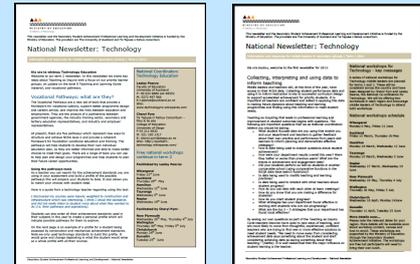


The July 2013 issue is the first in a new web-based format 'T-news on Techlink'. For the latest edition of t-news, and for archived copies of previous issues visit <http://www.techlink.org.nz/index.cfm>

Resources and links

National technology newsletters

The national technology newsletters are available on the Secondary Middle Leaders website on TKI at <http://nzcurriculum.tki.org.nz/Secondary-middle-leaders/Professional-learning-and-development>



Youtube videos by Cheryl Pym

<http://www.youtube.com/user/Cheryl9NZ>

Attributes and conceptual design

In this video Te Tapuae o Rehua facilitator Cheryl Pym explains curriculum concepts relating to attributes, design ideas and conceptual design from the New Zealand Curriculum in technology.

modelling part 1

In this video Cheryl Pym explains the types of technological modelling used within technology. This is a forerunner to the NCEA discussion for modelling at levels 6-8 of the New Zealand Curriculum.

Teacher Fellowships

Endeavour Teacher Fellowships are a two term Fellowship open to all fully registered teachers who have taught in the sciences, mathematics or technology for 5 or more years and who hold a permanent position in a New Zealand school. Successful applicants work on a project in conjunction with a host organisation to gain a better understanding of how science, mathematics or technology are applied outside of the classroom. Applications are now being accepted for Terms 1 and 2 2014. Applications close on Tuesday 20 August 2013.

<http://www.royalsociety.org.nz/teaching-learning/teacher-fellowships/endeavour-teacher-fellowships/>