

Secondary Technology newsletter

For leaders of technology in secondary schools in the Northern and Central North regions | Term 1 | 2013

Kia ora koutou and Happy New Year

We do hope you all had a relaxing break and had time to enjoy the wonderful weather with family and friends.

Are you having trouble coming up with a good New Year's teaching resolution? Here's a list of 10 to pick from. These are things we teachers know we should do but often don't. Don't overdo it — just pick one and commit to it. Ten New Year resolutions for Technology Teachers to pick from....For 2013, I'm going to:

1. Develop an inquiry approach for all my teaching to ensure positive outcomes for all my students.
2. Plan thoroughly and ensure all is well defined – what is the learning objective of the lesson and how will students know they have succeeded.
3. Have high expectations that are consistent for all students, especially Maori, Pasifika and special needs students.
4. Take every opportunity to develop reading, writing, communication and numeracy skills in my planning and lesson delivery.
5. Ensure there are high levels of engagement, interest, resilience, collaboration and co-operation for all students
6. Re-read the curriculum support document to ensure I have high subject knowledge of all three strands of the curriculum and deliberately teach all eight objectives to all year levels.
7. Be a critical friend with another colleague. Observe (and be observed) a teacher from another subject area and use this as a valuable tool in improving aspects of my own teaching and give constructive feedback on strategies that worked.
8. Contribute to department meetings: making pedagogy a major focus by sharing and challenging my own thinking on teaching and learning.
9. Share resources with my department and work collaboratively
10. Ask open-ended questions which will make demands on the learner, then follow up with further questioning to establish whether my students have understood.

Wishing you all a successful and productive year.

Nga mihinui

Beth, Lesley and Malcolm

Team Solutions Technology facilitators

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Leading learning in technology workshops

The following technology workshops aimed for middle leaders of technology will be held in the Northern and Central North regions this year. There is no need to register now – just mark the date in your diary. A separate flyer with further information including the registration process will be sent soon.

Northland

Monday 6th May

Friday 21st June

Whangarei

Auckland

Friday 15th March

Wednesday 29th May

Auckland

Waikato

Monday 18th March

Wednesday 12th June

Hamilton

Bay of Plenty

Monday 25th March

Wednesday 5th June

Tauranga

Hawkes Bay and East Coast

Wednesday 27th March

Wednesday 19th June

Napier

New PLD section on TKI website

A good way to keep up to date with what PLD is coming up is to visit the PLD pages on TKI

<http://nzcurriculum.tki.org.nz/Ministry-curriculum-guides/Secondary-middle-leaders/Professional-learning-and-development/Workshops-and-clusters/Northern-and-central-north/Technology>

Team Solutions Website

www.teamsolutions.ac.nz

Team Solutions Technology Wiki
technologynz.wikispaces.com/

2013 Technology Scholarship Alignment

Scholarship is a demanding and challenging standard that up to 3% of Technology and DVC students will reach in any one given year.

Students will be expected to demonstrate a high level of critical thinking, to show abstraction and generalisation and also to show how they can integrate, synthesis, justify, apply knowledge, skills and understandings and ideas in a complex situation. Teachers will need to consider a variety of pedagogical strategies in order to develop these skills in their students.

The 2013 Assessment Schedules reflect the revised performance standard to meet the rollout for all re-aligned NCEA Achievement Standards. The criteria are the same for all subjects with individual subject clarifications.

From 2013 Technology Scholarship requires students to demonstrate they have critically analysed, synthesised, and integrated their technological experiences. Technological experiences include all three strands from the Technology curriculum:

- undertaking technological practice to develop a technological outcome(s) that is justified as fit for purpose in the broadest sense and shows elements of elegance and or originality
- demonstrating understandings of concepts underpinning technological knowledge
- demonstrating understandings of the nature of technology.

This does not mean students have to do the corresponding level 3 Achievement Standards.

The second column on the Technology Schedule requires evidence of justification of the complexities of the situation. (Extensive exploration around the context and issue, how it was identified and explored.) This is critical to be successful at scholarship. A design and make project with a preconceived solution in mind will not allow the issue to be explored in depth. Teachers should be familiar with the expectations of brief development at level 8 of the curriculum and support students to identify a context and authentic issue that can be comprehensively explored and critically analysed. This exploration should result in the identification of a number of needs/opportunities. This stage should not be rushed and should be revisited throughout the technological practice.

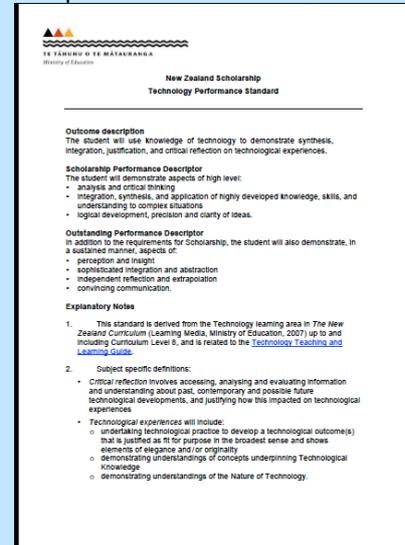
Refer to the Explanatory paper on Brief development from the Technology Curriculum Support. Link:

<http://technology.tki.org.nz/Curriculum-Support/Explanatory-Papers/Technological-Practice/Brief-Development>

Scholarship links and resources

The standard

The Technology scholarship standard can be accessed from the sample resources link below



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

Assessment specifications

Specifications for 2013 are at

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

Assessment schedule

Schedule for 2013 at

The screenshot shows a 'Sample Assessment Schedule' for 'Scholarship Technology'. It is a table with columns for 'Synthesis and Integration' and 'Critical Reflection', and rows for different achievement levels (1-8). The table includes a 'Sub Total' row and a 'Total' row.

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

Teachers: Analyse with your students the two annotated scholarship exemplars, on the NZQA website (see blue box to the right), to identify the critical evaluation that occurred to identify a suitable context and issue.

Level 3 NCEA does not require students to have a client, however this often leads to challenging issues to be solved, so if students choose not to have a client they should be supported to choose multiple key stakeholders that can challenge their thinking and practice. Often conflicting requirements lead to a deeper reflection, synthesis and innovation.

Previous years students have neglected to critically reflect on the experiences of others to assist them in their technological practice. So assist students to read widely, visit, interview others throughout their practice.

The page limit is to be adhered to and if students go excessively over 60 pages they could find pages over 60 have not been assessed and may not fit into the new NZQA assessment envelopes. Teach students to be concise in their documentation without neglecting the evidence required for scholarship. For example a summary of research undertaken rather than pages of images or surveys.

DVC Scholarship in 2013

The above article was focused on Technology Scholarship for 2013 but similar resources are available for DVC

The standard and the 2013 specifications for DVC scholarship can be found at:

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

Sample resources for the 2013 revised standard for DVC can be found at:

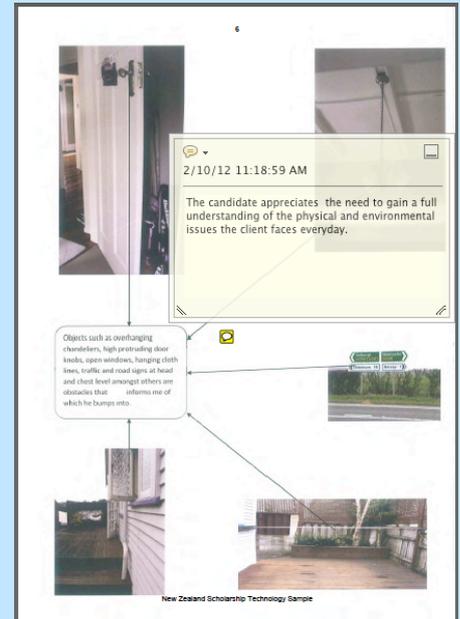
<http://www.nzqa.govt.nz/qualifications-standards/awards/scholarship/scholarship-subjects/scholarship-graphics/sample-resources/>

Scholarship resources...

Sample resources

This link has two annotated examples of student work – one at scholarship level, and one at outstanding scholarship level.

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



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OUTSTANDING SCHOLARSHIP EXEMPLAR

Question	Mark
ONE	8
TWO	6
THREE	6
TOTAL	20/24

NZQA
New Zealand Qualifications Authority

New Zealand Scholarship Technology

AUTHENTICITY DECLARATIONS

CANDIDATE TO COMPLETE

If the NSN printed at the top of this page is not your NSN, advise your teacher immediately.
Print your National Student Number (NSN):

Declaration:
"The report enclosed in this folder is my entry for Achievement Standard. This work presented for assessment is my own. I have included references to all external sources."
Signature: _____
Date: _____

If the information supplied above is inaccurate, there may be an investigation for a breach of the NZQA Rules and Procedures.

THIS PDF ALSO CONTAINS A PRINTABLE ANNOTATED VERSION

NOTE: This exemplar is adapted from the 2011 Scholarship exemplars.

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Note that both these exemplars are based on the previous version of the scholarship standard with annotated comments showing how the student work relates to the new version of the standard. Also note that neither of these exemplars have sufficient evidence from the three strands of the technology curriculum to satisfy the new standard.

Technology Online

Technology Online has replaced Techlink. The IPENZ contract with the Ministry of Education for publishing technology education resources on Techlink ended on 31 December 2012.

Technology Online (<http://technology.tki.org.nz>) is the new site dedicated to educators, learners and those interested in technology education in New Zealand. This site showcases examples of contemporary teaching and learning in Technology and provides curriculum support and inspiration for educators in their ongoing planning and implementation and reviewing of teaching and learning programmes.



Welcome to Technology Online

Technology Online is a site dedicated to educators, learners and all those with an interest in technology education in New Zealand.

Technology Online showcases examples of contemporary teaching and learning in Technology and provides curriculum support and inspiration for educators in their ongoing planning and implementation and reviewing of teaching and learning programmes.

Up until now, most of these ministry-funded resources were published on the Techlink website, by our education partner IPENZ. We would like to acknowledge and thank IPENZ for their contribution and support in developing and building this resource over the last 8 years. And for their ongoing support during the transition to this new site.

Kāua e rangiruaia te hāpai o te hōe; e kore te tātou waka e ā ki uta
Don't paddle out of unison; our canoe will never reach the shore

Curriculum Support
The most up-to-date MoE support for schools and teachers in the implementation of the technology...

Case Studies
Over 170 case studies of interest to Technology teachers, divided into three categories: Classroom Practice, ...

Teaching Snapshots
Single-page 'snapshots' of ideas/strategies/resources/ collaborations that Technology teachers have used successfully in their classroom...

Information for Parents
Parents - find out about Technology, how it is being taught in New Zealand schools,...

Teacher Education
Technology Online Teacher Education site provides Technology teachers and education professionals with a wide range...

Student Pages
Throughout the country New Zealand students are producing Technology project work of exceptional innovation, design...

For teachers who have been used to navigating on Techlink you will find most of the information that was on Techlink has been transferred across to Technology Online. Some useful links when developing teaching and learning programmes are:

<http://technology.tki.org.nz/Curriculum-Support/Technology-Programme-Design>

<http://technology.tki.org.nz/Curriculum-Support/Indicators-of-Progression>

<http://technology.tki.org.nz/Curriculum-Support/Knowledge-and-Skills-documents>

<http://technology.tki.org.nz/Curriculum-Support/Strategies-for-Engaging-Students>

<http://technology.tki.org.nz/Teacher-Education>

<http://technology.tki.org.nz/Student-Pages>

Resources and links

2013 Technology conference

The dates and venue for the TEASC 2013 National Technology Education Conference have been changed from those notified last year. This first combined technology subject association conference will be held in Wellington from 7-9 October 2013, with Wellington High School confirmed as the host venue.

'Connect - putting the pieces together'
Wellington High School
7-9 October 2013

TESAC, in conjunction with TRCC, is proud to present 'the conference' for 2013.

HETTANZ, NZGATTA, NZACDITT and TENZ working together for their members 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....

The conference is aimed at educators from across the sectors.

It will provide an opportunity to focus on future-oriented views of knowledge and learning, and to explore the position of Technology education in the 21st century.

Put the conference dates in your diaries now and look out for registration and programme details early next year, at www.trcc.org.nz.

Remember that TRCC will subsidise teachers' travel to the conference for those who register early.

If you have any queries, contact conference convener Adrienne Reeves at president@hettanz.org.nz

The planning team will be introduced in the next issue of t-news.

This is a joint venture between the four technology subject associations (TENZ, NZGATTA, HETTANZ, NZACDITT). This conference is being run in association with the Teachers Refresher Course Committee (TRCC) so there will be a travel subsidy available for the first hundred registrations. Programme and registration details to follow but mark the dates and start thinking about applying for PD funding now!

Creative Ideas



Students love turning unconventional materials into wearable accessories. What about zippers! This site gives five simple, beautiful ways to create bracelets, cuffs, and bangles out of metal, plastic, and repurposed zippers. <http://www.stumbleupon.com/su/21f8DL/www.brit.co/zipper-bracelets/Best>

NCEA alignment update – level 3 technology

Technology matrix for 2013

On the level three technology resources page on TKI in the top right corner

<http://ncea.tki.org.nz/Resources-for-aligned-standards/Technology/Level-3-Technology>

Level three standards

Final registered versions of the level three standards are on the NZQA website at

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

Assessment resources for the level three standards

'NZQA approved' assessment resources for all the level three internally assessed standards are available on the TKI website at

<http://ncea.tki.org.nz/Resources-for-aligned-standards/Technology/Level-3-Technology>

Conditions of Assessment

Conditions of assessment for the internally assessed level three standards are on the level three technology resources page on TKI in the top right corner

<http://ncea.tki.org.nz/Resources-for-aligned-standards/Technology/Level-3-Technology>

Assessment specifications

Assessment specifications for 2013 are on the NZQA website

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

Scroll down to the heading 'Resources for externally assessed standards'.

Sample external assessments

Assessment guides and annotated exemplars for the externally assessed standards are at

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/technology/sample-external-assessments/level-3/>

DVC links and resources

The corresponding resources for Design and Visual Communication (DVC) can be found on the NZQA website at

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

Transition arrangements and exclusion list for 2013

The June 2012 SecQual listed transition arrangements and the exclusion list for 2013 and provided links to the exclusion lists. Refer to S2012/011 - 20 Jun 2012

Mutually Exclusive Level 3 Standards and Transition for 2013

<http://www.nzqa.govt.nz/about-us/publications/newsletters-and-circulars/secqual/mutually-exclusive-level-3-standards-and-transition-for-2013/>

NZQA Best Practice workshops

NZQA will be running Best Practice workshops again in 2013. For all the details see the NZQA website at

<http://www.nzqa.govt.nz/about-us/events/best-practice-workshops/>

Level 3 key messages

Key messages about the newly aligned level 3 technology standards can be accessed on the Team Solution technology wiki at

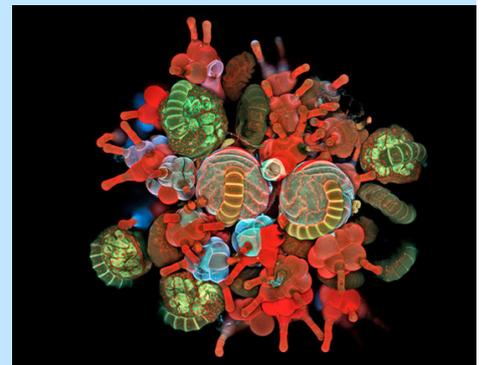
<http://technologynz.wikispaces.com/Level+3+NCEA>

Resources and links

Design ideas

Looking for inspiration for AS91627 Initiate design ideas through exploration. Get your students to look through a microscope at plant cells, and look at professional photos of BioScapes. The images are amazing and could lead to exciting and innovative ideas for a product or spatial design. Try for a starter this site:

<http://www.coolhunting.com/tech/olympus-bioscapes-2012-winners.php>



The ABC of Architects

The ABC of Architects video takes viewers on an animated tour of famous architects by assigning each letter of the alphabet to an individual and their best known building. The concept and animation was created by Andrea Stinga and Federico Gonzalez. I love the way the famous buildings are reduced to simple geometric shapes.

<http://www.stumbleupon.com/su/6NVsJp/www.psfk.com/2013/01/famous-architects-buildings.html>



