

## Contents

- 2 GIF Technology Education Update
- 2 Resource Guidelines
- 3 Beacon Practice Schools
- 3 Biotech Roadshow
- 4 TRCC Conference
- 4 TENZ Council news
- 4 A visitor from Sweden
- 5 Futureintech news

## About TENZ

Technology Education New Zealand (TEENZ) is a professional network working to support and promote Technology education in New Zealand. TEENZ:

- fosters the development of Technology in the New Zealand Curriculum.
- develops and maintains national and international links between Technology education professionals and with the wider technological community.
- supports professional, curriculum, and resource development in Technology Education.
- encourages research in Technology Education.
- organises a biennial national Technology Education conference.
- to register for TEENZ, visit [www.tenz.org.nz](http://www.tenz.org.nz).

## Towards university recognition

### Progress is at last being made to have Technology on the University Entrance 'approved list'

At the end of last year getting Technology on the UE 'approved list' seemed a long way off. However, following last year's feedback to NZQA on the common University Entrance standard a number of school subjects, including Technology, made formal application for inclusion on the list.

At a meeting in late February these applications were considered by a university entrance panel which included NZQA and New Zealand Vice Chancellor's Committee (NZVCC) representation.

The next stage in the process for Technology will be formal consultation

with universities and the NZVCC in March and April.

The results of this consultation will then be considered by the panel and a recommendation made to NZQA on which subjects should be added to the list.

At this stage it is expected that changes will be notified to schools by 15 June and take effect from the middle of 2007.

It'll be one small step for NZQA, but a massive leap forward for Technology in schools.

## Scholarship numbers on the rise in Technology

Provisional results from the 2005 external assessment round saw the award of 15 Scholarships in Technology, two with outstanding performance. This came from a total pool of 875 Level 3 students of which 60 presented material for Scholarship assessment.

Sixteen year old Samantha Eagle (right), a Y13 student at Tararua College in Pahiatua, was one of the successful students. In her L3 project she worked with a practising food technologist from Hansell's NZ Ltd on the development of a Soy based yoghurt.

Food technology consultant Carol Pound provided additional mentoring over the year to help Samantha with her understanding of food science concepts in the product development process.

This year Samantha takes a break from Technology – she'll be studying



Level 3 English, Biology, Chemistry, Physics and Maths with Calculus with a view to starting a Health Sciences degree at Auckland University in 2007.

## GIF Technology Education update

Response to the recent national survey of Technology HoDs was overwhelmingly positive – with no negative responses to the question concerning how respondents feel about their role as HoD Technology.

In the survey, HoDs were asked to list the main issues they are currently facing. As could be expected, there was a huge range of responses – covering everything from implementation issues and facilities to national assessment and professional development.

One broad theme, however, was the problem with the status of technology education both within schools and in the broader community (including parents) and the fact that Technology is not on the 'approved list' for University Entrance

When asked about the support which they accessed – many HoDs referred to School Support Services and subject associations. Responses also highlighted the benefit of clusters and the ability to

have discussions with other HoDs.

In addressing the requirements for ongoing support many responses asked for assessment support and professional development. There was also a desire for additional opportunities to meet as a cluster regionally.

Proposed actions to address these issues and provide the additional support requested include the active promotion of technology education within the education sector and in the wider community. This will focus on the good things that are happening in a large number of schools and include student and teacher success and the growing effectiveness of links with business and the community.

As a follow up to the highly successful HoD day in October

2005 we will be running HoD day in both the North and South Islands in June. These days will be a part of a coordinated programme to support HoDs based on the needs they have identified. The emphasis of the days will be to focus on professional leadership in technology education. A result of these days will be the establishment of local clusters. The proposed dates are Friday 2 June in Auckland and Monday 19 June in Christchurch.

Your feedback on these initiatives would be appreciated. Email your comments or questions to [Niall.Dinning@xtra.co.nz](mailto:Niall.Dinning@xtra.co.nz)

### t-news hounds...

We welcome your suggestions on news items for inclusion in future issues.

If it's topical and of interest to others in technology education, then email your contribution to [tenz@ipenz.org.nz](mailto:tenz@ipenz.org.nz).

## Technology Resource Guidelines online

How do you tell a 'quality' technology education resource? How can we best assist resource developers in technology education to aim for 'quality' in their resource production process?

This issue has been addressed as an integral part of the GIF Technology Education initiative.

Draft Guidelines were presented at the HoD forum at the TENZ Conference in 2005 and feedback obtained through a follow-up workshop.

The latest draft has been posted on the Techlink site for wider trial – at

[www.techlink.org.nz/teched/resourceguide.htm](http://www.techlink.org.nz/teched/resourceguide.htm). It outlines why it has been developed, the criteria to judge 'quality' in a resource and what developers should be looking to achieve in their resource production process.

While the content has been well critiqued, how the Guidelines are used will be the measure of their

success. We are asking teachers and teacher educators to test out the draft 'evaluation' sheet for us. Pick a resource which works for you at any level of technology education. Look to communicate to others how you have been able to use it with students and summarise why you would encourage others to use it. Make comments on how easy you found the process – then press the button to submit.

After feedback has been collated, we will publish the results in t-news.

## New Beacon Practice schools for 2006

**This year a further nine schools will join the existing thirteen schools in the Beacon Practice Project.**

In Auckland Carmel College (pictured) and St Kentigern College are clustering together to work on developing cohesive junior programmes (Y9-10) which will provide continuity and progression toward senior (Y11-13) courses. Their focus technological areas will be food, materials, ICT and electronics and control. At Botany Downs Secondary College in Howick one emphasis will be on demonstrating how the integration of ICT tools supports technology education and the role ICT has in supporting functional modelling in technology classrooms. Mount Roskill Grammar is the fourth Auckland school joining the project this year. Here the target area will be programmes that support learning in technology education from

Y10-13 with a focus on electronics and control technology.

In the Waikato region, Hamilton Girls' High School, Tauranga Boys' College and St John's College (Hamilton) will cluster together. One of their goals will be to develop systems of evidence gathering that effectively support student learning and that are appropriate for national assessment purposes. Classes will be

mainly working in the areas of food and materials technology.

Two further South Island schools join the project this year. Nelson's Nayland College and Garin College will be working across the areas of food, materials and electronics and control exploring among other things links between literacy strategies and achievement in technology education.

Progress on all projects can be followed on [www.techlink.org.nz](http://www.techlink.org.nz).



## Biotech Roadshow trucks on

**The Biotechnology Roadshow currently touring New Zealand is the first national touring exhibition mounted by Te Papa, the National Museum.**

Setting up in highly public areas such as A&P shows, mall carparks and museum and library forecourts the exhibition has been making information on recent developments in biotechnology more accessible to a wide audience across the length and breadth of the country.

The exhibition, which is touring using the facilities of the national Science and Technology Roadshow Trust, is structured into four main sections – on what people leave behind when they leave a room, medical advances, farming advances and leading edge NZ research and development.

Free entry has encouraged high levels of

attendance in all centres and exhibition manager Wayne Rewcastle is delighted with the support from schools - despite the overlap with external examinations and the holiday break.

Early March will see the mobile display set up at the Viaduct Basin in central Auckland, and from there it will move south to finish at the Wellington waterfront in early April.

The exhibition is supported by the Ministry of Research Science and Technology.

To find out more, visit the Te Papa website [www.tepapa.govt.nz](http://www.tepapa.govt.nz).



## TRCC Conference: Convergence – Getting it together in electronics and technology

This TRCC Conference, held on 25-28 September 2006 at St Andrew's College, Christchurch, brings together the best practises in electronics education of Science & Technology teachers and those offering the National Certificate in Electronics Technology (NCET).

While the conference follows on from ETITO's determination to support electronics in the Technology Curriculum, emphasis will be given to empowering teachers (of all levels) to deliver exciting, creative programmes.

Regardless of your expertise you will have fun working in teams to grow your knowledge and skills and follow a design process to create a takeaway product. Teachers will opt into teams that focus on activities at the year level they wish to concentrate on, or are comfortable with. Practical activities will model a technological approach that may be imported into school programmes. Aspects of the course will relate to Technology achievement standards, NCET and junior classes.



Join the fun by enrolling now. The conference promises to be stimulating, relevant, informative, active and enjoyable. There will be opportunities to interact with tertiary educators, company leaders, to visit sites of interest, get informed comment and see the electronics industry in action. Prices and advertising are on the TRCC website ([www.trcc.org.nz](http://www.trcc.org.nz)) and flyers are available from TRCC, email [trcc@clear.net.nz](mailto:trcc@clear.net.nz). The usual TRCC travel benefits apply.

## TENZ National Council news

**Results from the 2005 National Council elections see two new elected members joining the council, Louise Milne and Brian Allen.**

Louise Milne moves from a co-opted member to an elected member. Louise has a background in primary education and is presently working within the School of Education at the University of Waikato.

Brian Allen is HoD Technology at St Patrick's College - Kilbirnie and has extensive experience as an HoD Technology having recently worked in this role at both Wellington High School

and Otaki College.

Subscription reminder notices were posted out at the start of the school year through IPENZ administrative channels and we are encouraged by the level of support received from individual members and schools. A focus of this year will be to increase support for members and constructive feedback on how this could be best achieved can be forwarded to [tenz@ipenz.org.nz](mailto:tenz@ipenz.org.nz)



## A visitor from Sweden

Thomas Ginner, Director of The Centre for School Technology Education (CETIS) in Sweden, is currently visiting New Zealand.

CETIS is based at Linköping University and is the national centre for the collaborative development of technology education in Swedish schools.

While here, Thomas has talked with a range of Technology teachers and teacher educators, and observed that there are many similarities between the New Zealand and Swedish situations – both in the intent of the technology education curriculum and the level of resourcing.

During his visit Thomas is establishing a range of contacts to enable him to co-ordinate a visit to New Zealand by a representative group of Swedish technology educators to coincide with the next TENZ National Conference in October 2007.

For more information on technology education in Sweden visit [www.cetis.se](http://www.cetis.se)

## Futureintech update

### Hands-on learning

Having outside experts helping in the classroom can be an excellent learning tool for students – and their teachers. This is where Futureintech comes in. It's our job to help teachers find the right people to support their maths, science and technology programmes.

Futureintech Ambassadors are young engineers, scientists and technologists with a passion for what they do. In 2005, our Ambassadors helped students with a range of projects in schools, including the design and building of bird houses, electrical circuits, sand pits and playgrounds, and helped with computer programming and food technology units, just to name a few examples.

In 2004, Clifton Terrace Model School in Wellington was one of the first schools to become involved with Futureintech. The school worked with environmental engineer Hannah Hyde, who helped the students redevelop a rocky bank into a useable space. According to teacher Delia Glogowski, Hannah's input was crucial. "It made the learning experience very real for the students. Hannah is able to answer questions and facilitate discussion in a way that I can't, because of her professional knowledge.

"She's really given the students a better understanding of what an engineer does."

If you would like to make use of the ambassador in your class simply contact your local Futureintech Facilitator. Their details can be found at: [www.futureintech.co.nz/facilitators.cfm](http://www.futureintech.co.nz/facilitators.cfm)

*Above: Hannah Hyde and Delia Glogowski working with students from Clifton Terrace Model School*



### Transpower Neighbourhood Engineer Awards

So far this year, 66 schools have signed on for Transpower's Neighbourhood Engineer Awards, and Futureintech Facilitators have more schools in the process of integrating the programme into their curriculum.

The IPENZ Neighbourhood Engineers Awards are open to all primary and secondary schools in New Zealand. It aims to create a greater awareness of the engineering profession by integrating a major practical exercise into the Technology curriculum. The programme works by facilitating the introduction of teachers and students with an engineer already living locally who has volunteered to work with the children.

Together the class and the volunteering engineer work to identify a specific need that the school or community has. The class, teacher and engineer work as a team to develop a plan to either create

an entirely new addition to the school/community or further enhance the existing structures.

A report of the technological practice is then submitted as an entry for the award with the winning school receiving \$2,000 to spend on whatever they choose.

Examples from previous NEA participants have included the construction of new playgrounds designed by the children, the redevelopment of vacant lots into recreational areas and, in one unique case, the production of sophisticated farms for the class's pet snails.

Futureintech has a myriad of engineers from all disciplines eager to participate in the programme. For more information on how to bring the Transpower Neighbourhood Engineer Awards to your community go to: [www.ipenz.org.nz/ipenz/Education\\_Career/neigheng](http://www.ipenz.org.nz/ipenz/Education_Career/neigheng)

### [www.futureintech.org.nz](http://www.futureintech.org.nz)

Futureintech's website contains a wealth of information for students, parents, teachers and careers advisors. It has profiles of young people working in technology, engineering and science, the companies they work for, and information on the different courses, careers and scholarships available to New Zealand students.

