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## About TENZ

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

- 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.

## Ministry moves to increase support for Subject Associations

At the initiative of the PPTA, a Forum of Subject Associations was convened in April of this year. A further subgroup meeting was held in August.

At these meetings it was agreed there was a need for national co-ordination of subject associations and assistance to enhance their ability to function in ways which support teachers, to:

- ensure the MoE and NZQA communicate more effectively with the sector and seek advice from practising teachers through their subject associations
- enable the MoE to work with subject associations to build professional learning communities
- enable the MoE to more easily encourage bids for contracts from subject associations eg, the current one for NCEA exemplars (where there was just a small notice in the Gazette), production of resources, etc
- share best practice for subject association organisation, eg, on running conferences, managing websites, publishing newsletters, bidding for government contracts, thereby ensuring that subject associations are supported to build their expertise and infrastructure
- provide a single contact point for people to find out about how to contact the relevant subject association, eg, through the Royal Society website
- Help the subject associations to work together and advocate on common issues, eg, Curriculum Project, school-based curriculum development, NCEA
- co-ordinate subject associations so their conferences don't clash and

to enable any useful collaboration around conferences

- represent subject associations on the TRCC committee so that there is an easy conduit to the TRCC.

A two-stage draft proposal has been developed beginning with a pilot which it is hoped could commence during the current financial year.

### Stage 1

Contracting the Royal Society of New Zealand to host a full-time national co-ordinator of subject associations, whose initial task would be to scope the issues, build links between subject associations, network, and generally develop the role. The co-ordinator would work alongside a committee established for the purpose of representing the participating subject associations (up to 32 associations). The co-ordinator would also need to organise a national conference of subject association representatives.

### Stage 2

Continuing the contract with the Royal Society (or another organisation, subject to the tendering process) to host a full-time national co-ordinator and to bring the subject associations together as above. In addition some directed targeted support would be provided to individual national associations.

Following feedback by subject associations on this draft proposal it is expected that a formal proposal will be submitted by the Royal Society, PPTA and NZEI to the Ministry of Education – by the end of September, if all goes well. You are encouraged to contact [TENZ@ipenz.org.nz](mailto:TENZ@ipenz.org.nz) to express your views on this proposal .

## Three weeks to go... !!!

The conference programme has now been confirmed and the proceedings have been posted out. This will enable those already registered to select their preferred workshops, papers or visits in advance.

The workshops are always a strong feature at TENZ conferences. Presenters traditionally include enthusiastic and innovative classroom practitioners, teacher educators, resource developers, industry personnel and tertiary providers. Here's a taster from the 40 or so workshops offered at Christchurch:

- For those with an interest in food science and its application in product development in the food industry, Dr Ken Morison of the Chemical Engineering Department at Canterbury University will present The Role of Water in Food: Understanding Mouldy Bread and Soft Crackers.
- Mitzi Austin from Secondary Futures Education will facilitate an interactive session examining trends to explore possibilities for learning in the future.
- Melvin Din will introduce a hands on workshop session focusing on Creative electronics in primary schools for absolute beginners.
- The workshop taken by Rhys Taylor and teacher fellow, Jocelyn Papperill will explore Skills and Knowledge for Sustainable Living. Topics to be featured include waste, energy, water, gardening with biodiversity, organic gardening, travel and shopping.
- Jonathon Owens, Manazana Ltd and Gary Brinsden will do three separate presentations incorporating a variety of classroom technology tools.
- The Telecom Information Technology Roadshow will be with us at the conference offering workshops on Webbuild, Movie Mania and Movie Making.

### Programmes posted

The Conference Programme was sent on Friday 16 September. If you've registered for the conference and have not received your Programme by Wednesday 21 September, please contact Megan Rodden, email [mrodden@ipenz.org.nz](mailto:mrodden@ipenz.org.nz)

- 'Processing' is a knowledge area in technology education in South Africa and Karen Walstra will present a hands on session on beading using a range of different materials and exploring the cultural relationships.
- Tim Carrell, a teacher at the successful Senior Computer College in Christchurch, will present three workshops. With fellow teacher Vilna Gough-Jones, Tim will help those who want to begin designing and writing computer games from scratch. Participants will take away tutorials, software and resources to enable further development at home. Tim will pair up with teacher trainee Josh Campbell to model ideas for facilitating web design with senior students and Tim's final workshop, with the support of a successful 2004 scholarship student, will be a forum on how to give students the best chance for success in scholarship.
- Andrew Regaldo will look at the Integrated Technology system in use at Riccarton High School – what it is, why it's taught and the positives and negatives of its implementation.
- Niall Dining will talk about the Beacon Practice experience and two of the

schools involved – Katikati College and Hillcrest High School will present examples of ICT units of work and outcomes produced by students, and ways to teach technology in an ICT context using technology/ ICT achievement standards for assessment.

- Heather Bell and Mary Anne Mills from the MoE will focus on the Curriculum Project and the implications for programme design and student learning in technology.
- MWH Global is a company which provides knowledge driven services in 36 countries worldwide. Mike Rutledge will show how a range of their technological solutions have had to balance the at-times competing interests of clients, lobby groups, regulators and budgets.
- Kaikoura's Jos Main will present 'Making Sense of the Muddle' – developing a resource about Technology Faculty systems and procedures.
- Bringing modern biotechnologies into the classroom – Cathy Bunting and Alister Jones will outline how teachers can engage with the New Zealand Biotechnology Learning Hub – a new online portal developed by educators and the biotechnology industry to provide up-to-date biotech resources for students and teachers.
- Architect and National College of Art and Design tutor, Nicole Lauensten will discuss the results being obtained from a new approach used with students which aims to maximise their creative potential whilst engaging with modern methods of communication technology.

So... there's only three weeks to go... but there's still time to register – go to [www.tenz.org.nz](http://www.tenz.org.nz)

See you in Christchurch !!

## The New Cool

What do the names Huffer, Disruptiv, Inject Design and Sticky Pictures mean to you? Well they are four of the 12 street smart companies that have featured in The New Cool exhibition which has just completed a phenomenally successful season at The Dowse (Art Gallery) in Lower Hutt.

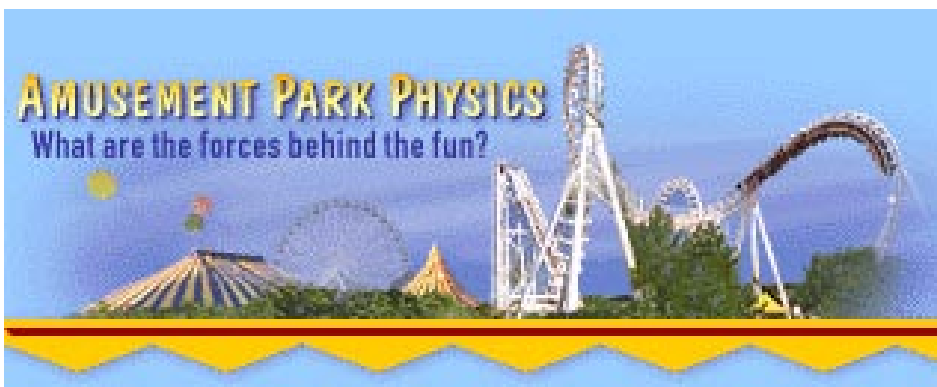
The publicity material says they are companies who are "...engaging creativity and business to create the products, lifestyles and communities they want." The exhibition presents their stories as a multi-media experience featuring a dynamic mix of moving image, graphics, product, music, website animations, video games and more !!

As part of the programme The Dowse and The Centre for Creative Industries at WelTec put on a series of 'New Cool seminars'. The third in the series, Clothing with Attitude, featured Dan Buckley from Huffer, Steve Hodge from Illicit, Kylee Davis from Insidious Fix and Tanya Thompson, aka Misery – the

creative brains behind four very different clothing labels. They talked to a packed audience of mainly young people about the ins and outs of the rag trade in New Zealand and how they've managed to find a niche in what is a very competitive market.

With sponsorship from the Westpac Bank, the exhibition now moves to the South Island where it will open for seven weeks at the Design and Arts College of New Zealand in Christchurch on 11 October 2005. To find out more about the exhibition and access some fantastic technology education resource material go to [www.dowse.org.nz/new-cool/TNC.html](http://www.dowse.org.nz/new-cool/TNC.html)

## Design your own roller coaster



Amusement parks are big business – visited by hundreds of millions of people world wide every year. A recent article published in *The Pre-Engineering Times* focussed on roller coaster design.

 IPENZ Engineers New Zealand	PO Box 12 241 Wellington New Zealand Tel: +64 4 473 3444 Fax: +64 4 474 8933 www.ipenz.org.nz newzealand@ipenz.org.nz ipenz@ipenz.org.nz - Tech Groups		<b>Invoice for services</b> Membership Number: 1987455 Invoice Number: 1433423 Issue Date: 1 Oct 2005 Payment due date: 1 Dec 2005																													
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"Designing roller coasters is practically an art form. In the simplest terms, a designer wants to create a ride that is heart-stopping, exhilarating, thrilling, addictive, and safe. You must provide the ultimate thrill or experience but not leave the riders feeling like they have been run over by a MACK truck."

The full article includes a number of links for those getting serious about roller coaster design and is at [www.learner.org/exhibits/parkphysics/coaster](http://www.learner.org/exhibits/parkphysics/coaster).

The newsletter is a publication of JETS – an American organisation which promotes the world of engineering and technology to students, parents, and educators. It is published monthly and can be accessed at [www.jets.org/publications/petimes.cfm](http://www.jets.org/publications/petimes.cfm)

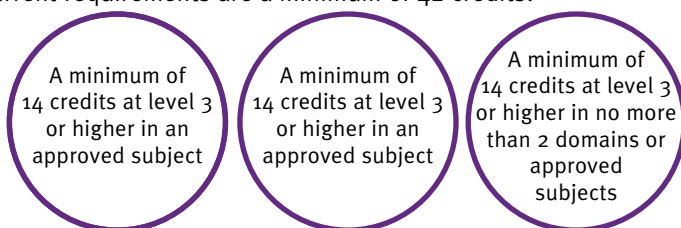
## Review of common standard for university entrance

NZQA has the function of establishing and maintaining the common standard for university entrance in consultation with universities and the New Zealand Vice Chancellors' Committee. The primary purpose of university entrance is to provide evidence that a student has 'a reasonable chance of success at degree level study'.

Key indicators of evidence of 'a reasonable chance of success' that underpin the current and previous university entrance standards, are:

- study in accepted fields at an appropriate level, and
- sufficient overall capability, and sufficient reading and writing competence.

The current requirements are a minimum of 42 credits:



- 14 credits in Mathematics at level one or higher
- 4 credits at level two or above in Reading
- 4 credits at level two or above in Writing

Credits can be accumulated over more than one year. Where a unit standard and an achievement standard assess the same learning outcome they are mutually exclusive for the NCEA and university entrance purposes.

In 2004, concerns were raised with NZQA about the entrance standard. Numbers achieving the entrance standard appear slightly down compared to previous years: 15,809, or 47.4% of all year 13 students, compared to 16,603 (51.9%) in 2003 and 15,290 (50.9%) in 2002.

An NZQA working group is reviewing the common entrance standard. They have prepared a consultation document backgrounding issues raised by some sector groups and seeking feedback on possible modifications to the common entrance standard that might address those issues can be downloaded at : [www.nzqa.govt.nz/ncea/ue/standardreview.html](http://www.nzqa.govt.nz/ncea/ue/standardreview.html). This consultation document seeks feedback on changes that might be desirable in both the shorter and longer term. (Submissions requesting inclusion of additional fields of study or subjects on the list of approved subjects will be considered using a mechanism separate to this consultation.)

Formal consultation with the NZVCC and university councils about specific changes will take place before NZQA formalises decisions. Depending on the nature of possible changes, an appropriate lead-in time would be required, with implementation of changes unlikely before 2007 (for the 2008 university intake). Minor changes may be able to be implemented earlier. Responses are due to NZQA by 1 October 2005.

### Resource development opportunity

The Ministry of Education is advertising for expressions of interest from teachers and educators to develop additional resources for all levels of NCEA across the subjects.

This project is running concurrently with the Level 3 resources upgrade that follows Level 3 standards review.

The resources may provide conventional or innovative ways of preparing students for assessment. Resources may be developed to support existing assessment activities on TKI or involve your own assessment activities, schedules and related material on teaching and learning context for assessment. Resources may include examples of student work with annotations, or information describing how assessment decisions were made. Ideally, examples of student work will have been assessed previously and activities and schedules used will have been externally moderated.

If you have relevant experience and are interested in becoming part of a team to develop additional resources for L1-3 NCEA technology, contact [TENZ@ipenz.org.nz](mailto:TENZ@ipenz.org.nz) giving a short overview of how you could contribute to the project.

## Futureintech update

### Rocket man has left the building

Christchurch students got a vision of the future last month, as NASA Engineer Dr Jack Bacon made a flying visit to New Zealand to give a series of presentations. Dr Bacon discussed NASA's space shuttle missions, the vision for future Moon and Mars missions, and described his work on the International Space Station which he calls 'the most complicated technical project in history'. Compared to the seriousness needed at NASA's mission control at Cape Canaveral, the Christchurch Town Hall was an extremely noisy and entertaining event.

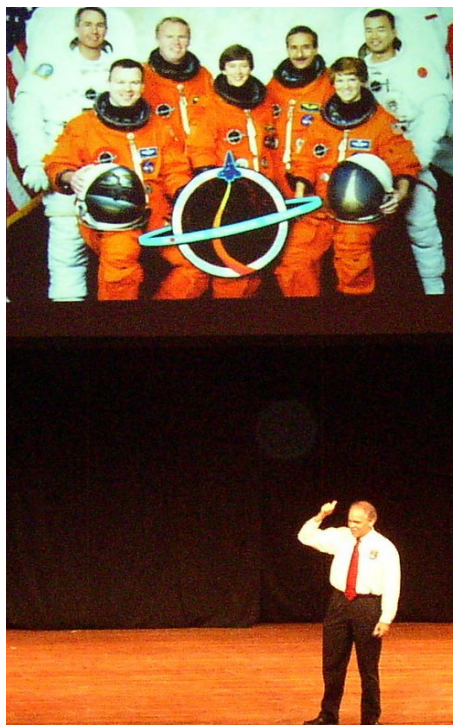
As well as two presentations to school students, Dr Bacon also a free public lecture later that night entitled "History in the making", and appeared on TV3's Campbell Live. His visit was organised and paid for by the Canterbury branch of the Institution of Professional Engineers (IPENZ) and was supported by Futureintech.

### QTV launches this month

A dynamic new multi-media series designed to engage young people's interest in the world around them starts this month on TV One.

QTV is presented by four young people with a passion for finding out what makes the world tick. Q takes science out of the classroom and goes where real scientists are working – underwater with giant spider crabs, on the edges of volcanoes, in front of a supercomputer, solving crimes or brewing bugs in the lab.

As part of the project, a DVD has been developed, with the support of various



companies, crown entities and the Ministry of Education, featuring 10 profiles of young scientists. You can order copies from [www.qcareers.co.nz](http://www.qcareers.co.nz). The first show airs this Wednesday (21 September) at 3:30pm on TV1.

### More resources for technology teachers

Futureintech has won a new contract from New Zealand Trade and Enterprise (NZTE) to provide case studies for technology teachers.

The Futureintech team will be developing case studies of technological practice for the Techlink website ([www.techlink.org.nz](http://www.techlink.org.nz)), which provides resources for teachers and encourages links between schools and industries.

The contract is part of NZTE's Enterprise Culture and Skills and Activities fund (ECSA), which aims to build a culture of business and enterprise in New Zealand by promoting entrepreneurial attitudes,

values and skills.

### Futureintech on the radio

Keep your ears peeled if you're in Auckland, Rotorua or Whangarei over the next month as radio campaign for Futureintech is aired on Mai FM. This is the most popular station in Auckland for teenagers, especially for Maori and Pacific Islanders, and follows on from a successful campaign last year.

### Promoting careers in ICT

A new magazine for school students promoting careers in Information Communications & Technology (ICT) is being launched later this year. The HiGrowth Trust, a Government initiative to promote careers in ICT, is providing seed funding for the new independent magazine.

According to the magazine's publishers, Actv8 will "inspire teenagers to become passionate about the positive benefits that technology can have on their lives and careers." It will feature profiles of young people working in and studying ICT, and the latest technological innovations in fields such as fashion, food and music.

120,000 copies of the magazine will be printed and distributed to schools in October.

### How to contact us

Visit our website at: [www.futureintech.org.nz](http://www.futureintech.org.nz), or email [enquiries@futureintech.org.nz](mailto:enquiries@futureintech.org.nz), or phone 0-4-473 2023.

