Technology Education New Zealand

TENZ is the professional body that:

- 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.
- operates as a special interest group that operates within IPENZ Engineers New Zealand

For details of TENZ membership see www.tenz.org.nz

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T-news

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International success in community problem solving

THE CLEAN GREEN STREAM TEAM FROM St Francis Xavier School, Whangarei won the Junior Division Grand Champions title at the recent international conference on Future/Community Problem Solving in Michigan State University in the USA. The SUSSED Team of Kerikeri High School also won first place in the Middle Division – Health and Environmental Concerns. Competition was fierce, with around 2,000 competitors from over 40 American States, Korea, Russia, Japan, Australia, Canada, Hong Kong, Singapore and New Zealand.

On the international evaluation team was Debbie Green, an advisor with Team Solutions at Auckland University, and a primary technology and e-learning facilitator working with schools in Northland. Debbie has been involved in the Future/Community Problem Solving programme for 10 years.

Future/Community Problem Solving is a programme that teaches critical, creative and ethical thinking skills to Year 4–13 students. "I started while I was teaching at Kerikeri Primary school, and then got involved with community problem solving, which is a component of future problem solving," Debbie says.

"In Community Problem Solving the students fix on a community issue – it could school based, local or

TOP: *The Clean Green Stream Team from St Francis Xavier School after receiving their Junior Division World Grand Champions trophy.*
CENTRE: *The Clean Green Stream Team setting up their display.*
BOTTOM: *The display of the Clean Green Stream Team's winning community project which involved the clean-up of a stream to restore its former capacity to sustain its eel population*

even global. Then they follow through a structured but flexible process to come up with a solution which they follow through on and produce a tangible outcome."

"Students like it because they have steps to follow to help them reach an outcome. They identify the problem and then they go out and try to solve it," says Debbie.

As part of the Evaluation team Debbie receives a copy of the booklets the students have worked on.

"This is all of their work for the year, and we do an evaluation on that. Then we all come together for the international finals. The students set up their display and we give each team a 30 minute interview and evaluate all of their display work, which includes upwards of two large folders of work showing correspondence, research, solution ideas, contacts made, etc," she says.

"I really love being able to see the range of student work, and the projects that they've become involved with. They have to do an incredible amount of research on their problem to look at what has been tried before and why it didn't work."

In addition to her international evaluation duties, Debbie has been working with a group of students from St Francis Xavier School in Whangarei.

"They were looking at the creek beside their school. It had been a really nice place and then the eels in the creek vanished and everything else just died, so they worked with the local council to develop an action plan to save the creek. The exciting thing for them was that at the end of the process they found eels back in the creek again."

"In community problem solving they don't all come out with a technological outcome but many do," Debbie says, and she encourages technology teachers to consider incorporating the scheme into their technology programme planning. "It's a good way to get teachers to think about authenticity and why their students are actually doing something," she says

"I've found it a good way to get teachers to think about the process they're going to be following through. They have to think about the process they're going to follow – write a scenario and look at the challenges around that scenario and narrow the issues down into something really tangible. Then they come up with potential solutions, and an action plan which they then carry out "

At the Conference New Zealand's National Director, Robyn Boswell, received an Award for 15 Years of Service as an Affiliate Director within the Future Problem Solving programme. New Zealand representation included teams from Kerikeri High School, Kerikeri Primary, Kristin School, Marlborough Boys' College, Otumoetai Intermediate, Rangitoto College, St Cuthberts College and St Francis Xavier School.

For more information on the Community Problems Solving programme and the success achieved by New Zealand students at the Michigan conference visit the website at: www.fpsnz.co.nz

TOP: *The winning display of the SUSSED Team from Kerikeri High School*

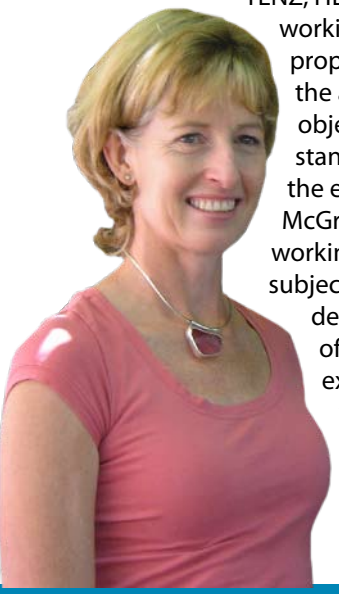
MIDDLE: *A display from a US team*

BOTTOM: *To quote Debbie: "The only photo of me actually working!'*

Greetings

The last month has been a busy one for members of the council. The Materials Research development team analysed the results of the teacher survey. Although we were very disappointed with the poor return rate we managed to get some valuable information about views on teaching resources and materials. The team is meeting again next week to finalise the report for this section of the project.

Many thanks to those of you who did return our survey. We really appreciate your input. Our next task is to collate and analyse the data from the school students' survey. We will also be accessing members of the wider education community for their views on technology education.



TENZ, HETTANZ and NZGTTA have also been working collaboratively on developing a proposal for a contract with the MOE for the alignment of technology achievement objectives and achievement and unit standards. We are lucky enough to have the experience and expertise of Glynn McGregor, Cheryl Pym and Cliff Harwood working in collaboration with the three subject association chairs/presidents in developing the proposal. The Ministry of education will also pull in other expertise where needed as the project develops. The contract being developed places considerable importance on the knowledge and skills of the technology teaching community and to this end will involve thorough consultation with technology teachers through their subject associations. If you are interested in or affected by achievement and unit standards and not currently a member of one of our three subject associations, now might be a good time to join, so that you can have your say. By being involved we are less likely to have things "happen to us" but rather have things "happen by us". All three subject associations see this as an extremely significant project and we look forward to working as a team for a united view of technology.

Recently I have been undertaking some research in a primary school. One of the classes, a Year 2 class, was asked to design a futuristic car to mock-up stage. I asked the children what they had learnt during the unit which involved looking at cars from past and present as well as talking to a salesman from a new car company. Here are some of their replies, with photos of their final products.

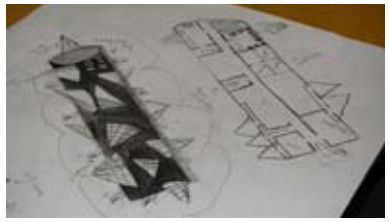
"Cars don't always have roofs."

"Cars have pipes, and the wheels go around. The bit at the back is in case you are in an accident."

"Cars have steering wheels. My car has got monkey bars on the back and girl on it. It was wings."

The following photos were taken by the Year 6 children I am working with. They are designing space stations to meet an identified need. I asked them to photograph their learning. Here are two replies with the associated photos.

"I learnt that space stations are often made of cylinders."



"This because I have just learnt to do a floor plan"..

"This space station to a defence station for Earth."

These children are very enthusiastic and open to new learning; I find their comments very insightful.

I have been delighted and excited by the many happenings in our regions. Each month we will be sharing some of these with you. I really appreciate the job our regional chairs and their committees are doing to promote and develop technology in their regions.

For those of you who are heading into holidays, enjoy the well-deserved rest.

Happy technology teaching!

Wendy Fox-Turnbull
Chairperson, TENZ National Council

Strong regional base forming in the Waikato

In the third of our TENZ regional profiles we introduce the TENZ Waikato network and its chairperson Jenny Mangan.

Jenny Mangan, TENZ Waikato regional chairperson

"I TOOK UP THE COORDINATION ROLE BECAUSE I feel really strongly about technology and here in the Waikato there hasn't really been a consistent approach to delivering PD and providing meetings and networking opportunities," says Jenny. "I believe that if its operating effectively, the TENZ network can provide a useful framework for that support."

Trained as a Home Economics teacher, Jenny has taught food and soft materials courses in intermediate and secondary schools in both the North and South Islands.

She took up a position at Hamilton Girls High School in 1990 and admits to quickly moving into Design Technology, "as soon as I caught a glimpse of what we could do with that". She took study leave during 2000 and completed a Postgraduate Diploma in Technology Education at Waikato University. Coming back to school, she carried on with her thesis and finished her Masters over the next two years. "So I came out of that and moved right into NCEA and I could see so clearly what it offered students in technology," she says.

Jenny is HOD Technology at Hamilton Girls High School and has been awarded a NZ Science, Technology and Mathematics Teaching Fellowship for 2008. She is based with three other Teacher Fellows, at Waikato University, part of the time with the Biotechnology Learning Hub and the remainder linked with the Engineering Department, researching developments in materials.

The Waikato Region is another which is well spread out geographically with significant population bases centred on Hamilton, Tauranga, Rotorua, Taupo and Gisborne. The region is served by a number of established and well-respected tertiary institutions and with its large and diverse industrial and enterprise base the TENZ Waikato network has a rich 'resource pool' from which to draw on in developing its programmes.

"There's certainly enough around that we'll have plenty to do without too much looking," says Jenny.

There are also well established HETTANZ and GATTA networks across the region and Jenny has been keen to quickly open up communication lines between the groups and to ensure that right from the outset, "there is a culture of collaboration rather than one of competition for membership".

A new committee was established at the beginning of the year. Alongside Jenny is Steve Andrew (St John's College) with Terry Beech (Morrinsville College) as the local GATTA representative. The group has formed close links with the School of Education at the University of Waikato and both Technology lecturer Louise Milne and Technology advisor Faye Lewis are part the committee. Two Bay of Plenty representatives – Kevin Meyer (Tauranga) and Heather Bradley (Te Puke) – have also joined the committee.

"We don't have a HETTANZ representative at this point but good lines of communication will enable us to share their needs and find out what's happening. That's the goal – to be working together. We need to make sure there's a good variety of PD available for everyone in the area and that nobody is missing out," says Jenny.

When asked about the focus areas for group activities Jenny points to differing needs depending on the individual experience and circumstances.

"There are teachers new to the country, new to the region or new to Technology, some quite experienced but many younger ones as well. They've all got different needs, and if we can be offering and promoting quite

a range of things through the various professional networks in the region, then they'll have more to choose from and they can pick what suits them, and, equally importantly, go to those things that are on at a time when they can manage to get there."

However the one thing she is sure of is that helping teachers come to terms with the adjustments required in implementing the new curriculum "will be right up there".

A major regional focus over the first two terms has been a series of curriculum related cluster group meetings in Hamilton, Tauranga, Rotorua and Gisborne co-ordinated by Brian Allen, a regional technology advisor.

"That gave us a solid meeting that was organised for this term across the region, so we decided that we'd promote those meetings and organise our first TENZ meeting for next term and make it an industry visit because we'd already had a curriculum PD focus."

Margaret Brunton, the Futurintech facilitator in the region, made the link with HortResearch in Hamilton and Jenny was able to take things from there.

"For our first meeting, on 30 July, we wanted a visit that would suit a broad range of teachers. HortResearch have an integrated approach to product development and a really good workshop facility. So you can see quite a wide range of disciplines working together as a team. They've also got a good venue for a meeting, so it was an ideal choice for our first after-school session."

"This meeting will be a mix of curriculum-related PD, industry visits and guest speakers, and we'll get some feedback from the members about their needs," says Jenny. "We've got a strong organising group together now and we're looking forward to seeing how our first meeting goes and how we can best take it from there."

TENZ 2007 conference papers now online

Keynote and paper presentations from the TENZ 2007 National Technology Education Conference can now be accessed on the TENZ web site.

Keynote Presentations

- Implementing Technology Education: Not Just a Question of Excellent Steering Documents – *Thomas Ginner*
- The Role of Technology Education in Supporting a Democratic Literacy – *Vicki Compton*

Paper Presentations include:

- Technology Through a Constructivist Approach – *Wendy Fox-Turnbull*
- Assessment for Learning in Primary Technology Classrooms – *J. Moreland, B. Cowie & Alister Jones*
- Technology Education Teacher Development in Solomon Islands: Enhancing Teachers' Perceptions and Classroom Practices – *D. Sade, J. Moreland & A. Jones*
- Modelling in Junior Technology Education – *Mike Drain and Gillian Kissling*
- The Design Process: Design as an Individually Negotiated Process of Reflexive Practice – *Ann McGlashan*
- Developing Technology Education: Don't Throw the Baby Out With the Bath Water – *Gary O'Sullivan, John Gawith and Nigel Grigg*
- The Perceptions of Tertiary Students in Malawi Towards Technology and Technology Education – *Vanwyk Chikasanda and Judy Moreland*
- Bridging the Formative-Summative Divide in Primary Technology Classrooms – *B.Cowie, J. Moreland, Alister Jones & Kathrin Otrel-Cass*
- Moving from Technical to Technology Education. Why is it so Hard!! – *C Harwood & V Compton*
- Drama, the Imagination, and the Design Process – *Chris Horne*
- Linking Community Problem Solving to the Technology Curriculum – *Debbie Green*
- Gone Tomorrow? Digital Photographs Past and Future – *Dawn Coburn*
- Children's Developing Understanding of the Meaning of Technology – *Brent Mawson*
- Year 13 Materials Technology Students' Perceptions of Technology Education – *A Hawkins and John Dobson*
- Catering for 'Gifted and Talented' Technology Students – *M. Down & K. Lee*
- The Map is Not the Territory – *Graham Flanagan & Brian Lane*
- Technological Literacy: What is That? – *E Blomdahl*
- Young Children Taking Pictures of Technology and Science – *J Moreland*

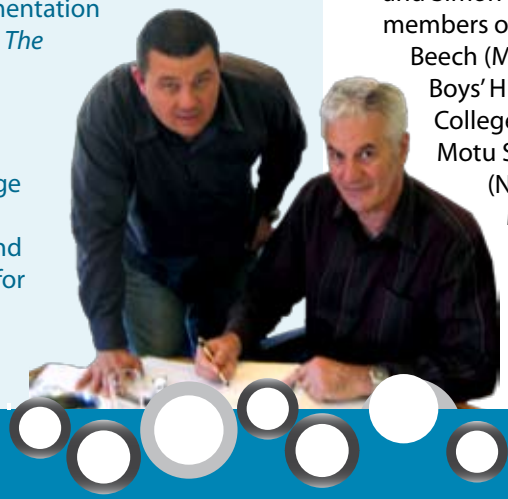
A pdf of these papers can be downloaded at: www.tenz.org.nz/2007/PAPERS_Handbook_Final.pdf

Updating of Graphics Guidelines progresses

THIS IS THE SECOND OF A REGULAR SERIES OF ARTICLES by Geoff Keith and Niall Dinning that focus on Ministry policy and strategies related to technology education.

Geoff Keith, Senior Advisor with responsibility for the Technology learning area at the Ministry of Education is leading the implementation of the technology curriculum in *The New Zealand Curriculum* (2007).

Niall Dinning is contracted as National Co-ordinator for Technology Education to manage technology related projects, communicate with the sector and develop the strategic direction for technology education.



OVER THE LATTER PART OF THE SECOND TERM significant movement has occurred in the process of updating the current 'Guidelines for the teaching of graphics'. A Graphics Guidelines Writing Group has been convened by the Ministry of Education in collaboration with the New Zealand Graphics and Technology Association (NZGATTA) and at a recent two day meeting in Wellington an essence statement for graphics was drafted by the group.

"The final essence statement will support both the development of teaching and learning guidelines for the subject and the Standards Alignment Project for graphics," says Niall Dinning. "Although we do have something already in place for graphics, when we asked around the sector everyone agreed that it would be worthwhile to take the opportunity to update it."

The material drafted by the group will be sent out to all teachers in charge of graphics early next term. Feedback will be collated by the Ministry and a final draft made available to support the Standards Alignment Project.

The writing group meeting was chaired by John Maguire, the Chairperson of NZGTTA, with discussion facilitated by Stewart McKissock (Birkenhead College) and Simon King (Mount Aspiring College). Other members of the group are Cliff Harwood (MoE), Terry Beech (Morrinsville College), Keri McCallum (Waitaki Boys' High School), Claire Wood (St Margaret's College), Lesley Pearce (Takapuna Grammar School), Motu Samaeli (St Kentigern College), Craig Thomas (New Plymouth Boys' High School), Ron van Musscher (Onslow College), Mike Jackson (Wanganui Girls College) and Alastair Wells (University of Auckland).

TECHNOLOGY EDUCATION PROMOTED AT NZIFST CONFERENCE

The annual conference of the NZ Institute of Food Science and Technology (NZIFST) was held at the end of June in Rotorua. "It's a high profile conference that draws delegates from industry and tertiary institutions in the main – both from New Zealand and Australia," says Niall. " I was invited to present at the final plenary session. My brief was 'Technology Education and how it relates to food technologists' – so it provided another valuable opportunity to improve awareness of what is happening in technology education in schools."

Within the broad picture that he painted, Niall detailed a number of examples of innovative practice occurring in schools.

"Many in the audience were not aware of how much has been happening and I didn't try and tell them that all food technology was like that – but I was able to show them examples of good food technology that was taking place and emphasise that this is the level of practice we're aiming for."

"The NZIFST has been one of the first of the leading 'industry' groups to recognise the value to be gained in supporting technology teachers and students, and one of the follow-ups will be to see how the Ministry can facilitate the extension of these links," says Niall.

PRINT PUBLICATION TO SUPPORT THE TECHLINK MATERIALS DEVELOPMENT PROJECT

Niall also reported that this publication is now going through its final stages at Learning Media and the expectation is that copies will be in all schools "by the middle to end of Term 3."

TECHNOLOGICAL PRACTICE PROJECT INITIATIVES UNDERWAY

The focus on assisting teachers to implement the technological practice strand has been evidenced by the planning and delivery of a series of regional cluster meetings across the country .

In the Waikato a number of cluster meetings have been scheduled around the region, including Bay of Plenty and Gisborne. The meetings have been organised and will be facilitated by School Support Services with the programme including input from teachers, such as Steve Andrew from St John's College in Hamilton, who have been involved in the Beacon Practice Project.

"Some have already taken place but most will be happening in Term 3. There will be similar initiatives through Support Services in other regions as well," says Niall. "We're also just at the point of working in with TENZ regional networks. Christine Elder in the Southern South Island is organising for a group from St Margaret's College to come down and talk about their development work at one of the regional meetings."

"Although the majority of the focus in all the meetings will be firmly on Technological practice, other aspects will also be covered depending on the local needs identified. So they'll all be different in some way really," says Niall.

TRCC Technology and Graphics course Update

GAINING MOMENTUM BY DESIGN – OCTOBER 2008

Course convenor Brian Allen reports that, with one term to go "its all go for the organising committee."

"Trica Winters is currently putting together further details of the workshops and presentations," says Brian. "Our key note speakers are Elizabeth Osborne, managing director of Top Mark products, Cliff Harwood, a Technologist Educator and researcher and Marlon Beyer-Rieger a student who is now at University after achieving scholarship success in both Graphics and Technology. In the the next **t-news** we'll give more information on the Industry visits that John Davidson is organising and Emily Barnes will finally reveal details of the conference dinner."

"I think, for me, the opportunities this course is going to give to teachers to improve their delivery of Technology and Graphics education is exciting," says Brian. "If you're coming you'll be well informed by the quality of the presentations and opportunity for interactions – including representation from three of the four national moderators in the subjects. You'll certainly find that your thinking is going to be seriously challenged" .

Remember:

Subject to financial constraints TRCC will pay travel for most teachers attending courses. This usually involves either:

- a return airfare for those travelling more than 200km or
- reimbursement of one return bus fare for those travelling between 50 and 200km each way to the course and for those travelling over 200kms who choose to take their car.

For full details on the programme and how to enrol go to : www.trcc.org.nz

Maori technologist an inspiration

Tricia Winter reflects on Gavin Britt's recent workshop on Maori technology at a Christchurch intermediate school, organised by the TENZ Northern South Island group.

GAVIN BRITT HAS BEEN A CHRISTCHURCH-BASED Arts educator for over 40 years. He is an inspirer of children, a craftsman, a maker of traditional Maori musical instruments and a teacher of teachers. Gavin acknowledges his European roots while embracing and honouring New Zealand's indigenous culture. Gavin recently spoke at an after-school TENZ regional meeting showcasing Maori Technology hosted by Shirley Intermediate School in Christchurch.

From the outset, one couldn't help but be impressed with Gavin's 'entrance' showcasing the Nature of Technology through the medium of Maori musical instruments and ancient everyday tools. His opening statement – "Work smarter and together, combine together" – was very apt considering the revised curriculum's integrated approach.

The delivery was simple yet very effective, explaining integrated curricula through the use of a porotiti or spinning disc (Technology, Maths, Phys-Ed, Maori, Music). As we traveled the journey with him, he asked some challenging questions along the way, for example, "How do you know when students do design?"

He talked of the poi and its use, using a microscopic explanation of the Raupu (Materials Technology) and how society has been affected by Maori technology both past and present, comparing ancient tools and displaying the modern day equivalent for the same use.

His delivery was inspirational, his explanations simple, and the showcasing of his wares provided a very visual demonstration of the Nature of Technology and its impact on a society. I enjoyed this workshop and would encourage people to look out for him if he is in your area.

FAR LEFT: *Gavin in full flight.*
CENTRE: *Some Maori artwork and musical instruments on display.*
BELOW: *Paul Snape, University of Canterbury, and Colin Bell, regional Futureintech Facilitator, admiring Gavin's artwork.*

Techlink update

NEW TECHLINK SUBSITE: TEACHING SNAPSHOTS

Techlink have added a new feature: Teaching Snapshots. Teaching Snapshots are single-page summaries of ideas or strategies that Technology teachers have used successfully in their classroom practice. The first Teaching Snapshots to be published can be viewed at www.techlink.org.nz/teaching-snapshot/index.htm

A snapshot could be of anything related to the teaching of Technology: a single idea, a resource, a collaboration, a technique, a strategy, a solution to a specific issue, or simply good teacher practice.

The aim is to give teachers a cache of ideas/activities/approaches to refer to as a knowledge base, which they could perhaps adopt or use as a point of inspiration for the continued development of their own practice.

The first Teaching Snapshots published are:

Technology Expo

Christine Elder and Simon Kay felt a need to increase parents understanding of Technology. They decided there was no better way for parents to see it first-hand what their children were producing. Together Christine and Simon organised a Technology Expo showcasing student work, as well as innovations and inventions from local technologists.

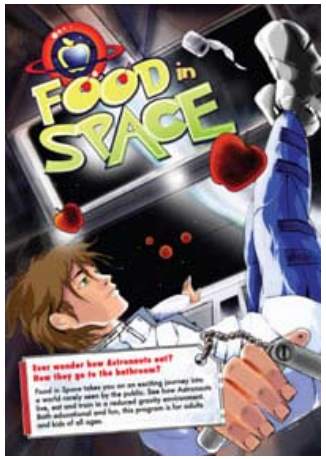
Sharing Student Movies on YouTube

David challenged his Year 7/8 class to design and develop a movie using mechanised actors and props. The resulting movies were place on YouTube and parents were encouraged to view the results.

Ambassadors in the Class

Carolyn Norquay used the Futureintech initiative to organise a class presentation by a young technologist. Carolyn noted that the experience was great for student motivation and illustrated possible careers in technology.

NASA Food in Space DVD



Jacquey Neilson used a DVD available on the NASA website as an introduction into her Space Food unit.

"It was brilliant" says Jacquey. "It hooked them straight into it".

CAM in the Workshop

Arthur Johnstone noticed the opportunity to model projects using CAM modelling software help to lift the standard of students' written work and portfolios submitted. Arthur is a strong believer that modelling and documentation are as important as skill development and final outcomes.

Casting in Pewter

Keith Cave felt is was important to present students with a unit that would appeal to them but also demand they pay attention to quality. He developed a unit in which students would cast pewter ornaments.

Teachers: *Techlink is keen to hear from you. If you have any good ideas, strategies or examples of good practice that you think other teachers may be interested in, please email comms@techlink.org.nz, with your contact details and we will arrange to get in touch.*

NEW BEACON PRACTICE CASE STUDY

Electronics Programme Design

Electronics Technology,
Mt Roskill Grammar School, Years 10-13

This case study looks at ongoing initiatives Mt Roskill Grammar to establish a successful Achievement Standards based programme at the school. The initiatives include 'Strategies for Change'. These strategies comprise:

- Developing comprehensive workbooks (Years 10-12)
- Improving student documentation
- Developing a terminology glossary
- Teaching Technological Practice
- Improving student product design
- Improving student software design
- Implementing Moodle – online learning environment
- Implementing structured personal consultations

Electronic Programme Design examines the delivery of the Year 10, 11, 12 and 13 programmes.

Read more at www.techlink.org.nz/GIF-tech-education/beacon-practice/Electronics/CP804-electronics-programme-design

NEW STUDENT SHOWCASES

Spud in a Tub

Sarah Angove,
Year 11 Food Technology, Tararua College

Faced with the context of the 'Lunch Box' Sarah considered a series of key factors before designing her healthy option, the Spud in a Tub. The Spud in a Tub is a healthy, tasty lunch option that can be frozen and reheated.

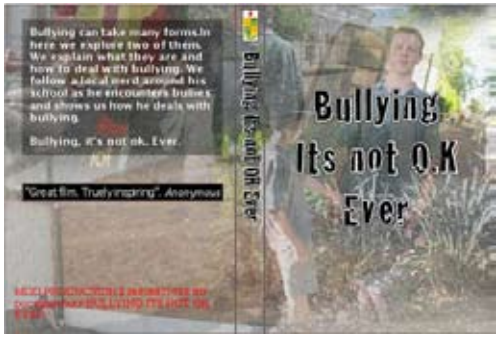
Sarah gathered feedback from a focus group reflecting on the information to develop a product to suit their needs and tastes. She also designed attractive, eye-catching packaging complete with required nutritional information.

Read more at www.techlink.org.nz/student-showcase/food-and-biological/sarah.htm

"Bullying is not OK, Ever" DVD

Oscar, Marcel, and Dave, Year 10 ICT, Katikati College

Oscar, Marcel and Dave decided to confront the issue of bullying at Katikati College by making a DVD about it. After determining what need to be done the team divided the project into tasks with each member responsible for different objectives.



The team acquired a series of new skills in order to produce professional results. They planned, shot, and edited the movie in iMovie, edited still photos in Photoshop, composed music in GarageBand, created DVD menus in iDVD, and produced the DVD package graphics in Freehand and Photoshop.

Read more at www.techlink.org.nz/student-showcase/ict/oscar.htm

Fresh Chocolate Soy Milk

Ronald Chau
Year 13 Food Technology, St Kentigern College

While researching a Food Technology project, Ronald found that New Zealand children aged 11-14 years are prone to calcium deficiency. After conducting a market survey he found that there were no fresh soy milks currently available and decided to develop a calcium-rich soy milk that would appeal to teenagers.

Ronald enlisted a food technologist from Fonterra to be his client. She offered an industry perspective on his project and provided some useful insights.

Read more at www.techlink.org.nz/student-showcase/food-and-biological/ronald.htm

Industrial Design news from InsideTIDE

Inside TIDE IS A FREE ELECTRONIC NEWSLETTER produced by ITEA – The International Technology Education Association – "to support educators from around the world who share the belief that technological literacy is a critical component of an education in today's world."

Its always worth a read and the latest issue has an interesting feature on sustainable design.

Ambiguously Green Standards

While there may be no one left who would argue that sustainable design is NOT better design, there still is considerable debate going on about what qualifies as sustainable design. There also remains the notion that going green is more expensive. One architect makes that case, in part.
From IDSA's *Design Bytes* – 4/21/08
www.mlive.com/business/index.ssf/2008/04/green_ambiguity_higher_costs_r.html.

Beware of Greenwashing

Maybe it is sustainable, and maybe it ain't. All we know, is, even Tom Sawyer has trouble separating fact from fiction when it comes to product labeling. In this article, a marketing firm defines the six sins of greenwashing to make it easier for all of us to distinguish legit sustainable practices from marketing hogwash.
From IDSA's *Design Bytes* – 4/21/08
www.twincities.com/ci_8982484?IADID=Search-www.twincities.com-www.twincities.com.

De Plane! De Plane! Is Green! Is Green?

A manufacturer of business jets has heard enough of its customers ask for more eco-friendly aircraft and is beginning to take action to provide a greener solution for air travel. What does that mean exactly? Read for yourself.
From IDSA's *Design Bytes* – 6/2/08
www.ainonline.com/news/single-news-page/article/greener-falcons-coming-from-dassault/.

A Woman's Touch

How many female car designers do you know? Probably not many. Which is both sad and predictable. Unless, maybe it doesn't matter. One member of GM's design team says there is no such thing as designing a car for a gender. Perhaps not, but there certainly can be a gender ascribed to a car. Have you met BMW's GINA yet?
From IDSA's *DesignBytes* – 6/16/08
www.37signals.com/svn/posts/1075-bmws-fascinating-gina-light-visionary-model-design-study.

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DURING TERM 2, Futureintech Ambassadors have been as busy as ever, supporting Technology classes across the country. The results have been engaging and fun, with students getting involved and asking plenty of questions.

Year 6 students at Papatoetoe Central School enjoyed their day with Nestle food technologists Rumesha Cyril and Sagar Katvi (pictured), who gave two presentations complete with videos and games. To show the differences between various mixtures of cocoa, they had the students up at the front of the room playing the parts of the ingredients to demonstrate what happens when they're mixed together. Everyone had a good time, and the kids got a unique introduction to food technology.

At the senior level, mechanical engineer Craig Shannon gave a presentation to Level 3 Materials Technology students at Tangaroa College. As a member of Fisher & Paykel's graduate programme, Craig is gaining work experience in the various departments involved in designing new appliances. He organised a class activity to demonstrate how to build products that can withstand stresses and heavy loads. Later, he told them about how he became an engineer.

"One thing they seemed interested in is what they can do if they haven't taken the right courses," says Craig. "At Year 13, they may already be on a different career path, so even if they're interested in engineering, they may think, 'What's the point?' But there are ways they can catch up if they want to switch, like start-up courses in their first year of university."

At Tamatea High School in Hawke's Bay, civil engineering cadet Amy Patterson talked to Year 12 and

13 Materials Technology students. Her cadetship with MWH gets her involved in design projects relating to roads and underground water utilities.

"We talked about the different processes you go through when designing for clients," she says. "Civil engineering is about designing things according to specifications, so we have to deal with regulations and requirements. The materials students can be a lot more free and creative with their projects. We spent some time discussing the similarities and differences."

Afterwards, the students were full of questions about her career. They seemed quite interested in what she's doing and how she got to where she is – and they were a bit impressed that she's only 21.

"A lot of people have no idea what my job is about," says Amy. "They'll turn on the tap and not really think about where the water comes from. They don't realise how important civil engineering is."

To find out more about how Ambassadors can help your technology class, contact the Futureintech Facilitator in your area, or check out our website: www.futureintech.org.nz.

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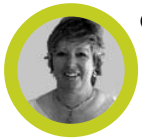

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