The "Science & Engineering Challenge" is an innovative outreach program designed to show students in years 9 and 10 that a career in science, engineering or technology can be a part of anyone’s future. Over the course of one day, 8 teams of 30+ students competitively engage in 8 fun filled activities designed to show students the fundamental principles of physics and mathematics ‘in operation’. The reward (to all students) is to complete the day with a feeling that “I could be a scientist, engineer or technologist – after all!”

The program was devised by the University of Newcastle, NSW in 2000, to address the alarming decline in numbers of secondary students choosing to go on to careers in these fields after secondary schooling. It has been widely recognised, receiving awards from scientific and engineering bodies, and has received over $2 million in funding support from the federal government’s Department of Innovation, Industry, Science & Research; Engineers Australia; Australian Constructors Association Limited and major industry sponsors to expand the program to all states.

The program is delivered across Australia via partnerships with the University of Newcastle. Victoria University has conducted challenges in North West Melbourne since 2004 and commenced our first regional Challenge in Wangaratta in 2008 in partnership with the Rotary Club of Wangaratta. The Science & Engineering Challenge is the largest outreach program of its kind being conducted in Australia and has expanded to include Singapore. In 2009, approximately 22,000 secondary school students participated across Australia, with the best schools from all states competing for the title of “Science and Engineering Challenge Gold Plate Winner” at the Grand Challenge in October!

Activities include, designing:
- bridges using balsa wood, pins, adhesive tape, drinking straws and strings to carry a moving load increasing to several kilograms weight;
- a catapult made from timber and rubber bands which has to launch a tennis ball as far, and as accurately, as possible;
- an electrical cabling network to supply power to a model city to ensure a reliable supply of power in the course of natural ‘events’ and power outages;
- propellor driven helium balloon support airships, then navigating these through an obstacle course in the minimum time; and many others.
Typical feedback from schools and students who have participated in the challenges include the following:

Albury High School - “The students thoroughly enjoyed the opportunity to be involved in the activities provided on the day. It provided the optimum for the students to be stretched both intellectually and manipulatively in a fun, non-threatening, though competitive environment. The students were still bubbling about the experience long after the event.”
  
  A. Ellis – Head Teacher Science.

Finley High School – “The competition has inspired in the students a greater belief in their ability and given them a wider view of the options available to them when they finish school. My students are still buzzing after finding out that they won the day and are looking forward to the next challenge.”
  

Numurkah Secondary College - “The challenge was very positive experience for us all. The students found it a very challenging, stimulating and an exciting day. I would strongly recommend this challenge to any school thinking of taking part (as long as it doesn’t mean that we would miss out).”
  
  E. Bent – Science KLA Leader.

Cathedral College - “This was a unique opportunity to expose the students to a series of challenges of a real world nature where they had to reach beyond their normal skill sets and experiences. Our students thoroughly enjoyed the day and will probably be still talking about it when the next event is due.”
  
  B. Robertson – Science Teacher.

Galen Catholic College - “This is the second year that our students have taken part in this challenge and once again they found it very enjoyable and valuable. Students don’t often get the opportunity to work on a project and have time to learn from their mistakes and then improve on their project. The Science & Engineering Challenge gave students this opportunity.”
  
  B. Carr – Science Convenor.

Mt. Beauty Secondary College - “The opportunity for me to watch the students interact with each other gave me great insight as to the social skills and ability to work as part of a team. That would not be possible in the usual classroom setting and was of great value to me. The student feedback was extremely positive. Students spoke of the day’s activities with great enthusiasm and interest in the set challenges.”
  
  J. Thompson – Science Coordinator.

“As the students have discovered, you don’t need to be a rocket scientist to enjoy science and engineering”.

WINNING SCHOOLS IN 2009 AT THE VICTORIA UNIVERSITY AND ROTARY CLUB OF WANGARRATA CHALLENGE EVENT WERE:

Day 1: Finley High School  Galen College
Day 2: Benalla College  Wangaratta Secondary College

Secondary schools wishing to participate in the Victoria University and Wangaratta Rotary Club Challenge in 2010 should send in the preliminary registration form on the back page of this newsletter.

We hope that the photos in this newsletter will inspire your school to “have a go” next year.

The dates for the 2010 Challenge are Wednesday 27th April and Thursday 28th April.

Thank you to the following schools for being a part of our Science & Engineering Challenge 2009:

Bright P-12 College  Finley High School  Numurkah Secondary College
Xavier High School  Numburah SECONDARY College  Wodonga Secondary College
Frayne College  Albury High School  Cathedral College
Galen Catholic College  Benalla College  FCJ College
Marian College  Mt. Beauty Secondary College  Murray High School
Mt. Beauty Secondary College  Wodonga Secondary College  Wangaratta Secondary College

---

Astronomers have discovered signals coming to earth from a nearby star. These signals indicate that there may be life in the galaxy containing the star. The “Dish” involves designing a working antenna to receive and interpret these signals in a search for extraterrestrial life.

Schools compete for the title - Science and Engineering Challenge Champion