In 2014, the LEAP Program has delivered 100 events, participated in by over 5,000 students from 130 priority schools across Victoria.

**LEAP into...Design**

**CREATIVITY IN ACTION: DRAWING WORKSHOP**

VCE students from around the state participated in our summer Interdisciplinary Drawing Workshop in January. Developing a greater understanding of the design profession, as well as building their own artistic skills and creativity, attending students took part in the workshop at Monash University's Caulfield campus. Over four days they discovered a range of design techniques that would be a valuable addition to their VCE studies.

Students were asked for their thoughts on the four-day workshop: "The LEAP into...Design Drawing Workshop is a great experience to attend if you are thinking of pursuing a career in design or if you are just interested in this area. It allows you to discover a variety of work activities and the place in design, but in a fun, enjoyable way. It is definitely a worthwhile event to attend to gain you a better experience and further develop your skills in design and working with new people." - Vanessa - Y10 Student

**UPCYCLING? WHAT’S THAT?**

Wimmera students found out all about upcycling, recycling and sustainability in LEAP into...Design’s Mystery Challenge and How Do They Do That? workshops, during the last week of April. LEAP into...Design toured the Wimmera Region, running nine design workshops over four days in Murtoa, Edenhope, Goroke, Nhill, Dimboola and Horsham.

In a rare, possibly unique experience for these regional schools, students were introduced to the breadth of the Design profession and the important role design plays in our world. They learnt valuable tips about preparing a design folio and how the interview process works when applying for a design course at university. Students found out about sustainable design and how it links to the concepts of ‘recycling’ and ‘upcycling’ - a new term for many. In the workshops they learnt first-hand how ‘waste’ materials could be ‘upcycled’ into a useful new product.

In the Mystery Challenge, groups of students learnt how Designers need to work as a team and within time constraints. Challenge 2 was to solve a design problem by selecting from a range of mystery items, teams responded with designs of creative designs. Students really enjoyed the challenge and were proud to present their finished products to the whole group.

In the second workshop, How do they do that?, groups were introduced to some of the skills Designers use. Responding to a ‘client brief’ these students really enjoyed working as Designers and they came up with some very creative designs.

Student feedback from the workshops was positive: "It helped me think quickly about a design, it also made me think about what I have learnt in class that I had never thought of before." - Y9 Student

The teachers at all the schools involved felt their students gained an understanding of the Design profession and the many, varied openings available for study and careers in this area. "Great work with you for your time, our students thoroughly enjoyed it." - Careers Coordinator

**A REAL ENGINEERING INDUSTRY EXPERIENCE**

A two-day program at La Trobe University’s, Bunurong campus on 9-10 April was run in conjunction with The Engineering Link Group. The event was a real hit.

Senior year students from 22 LEAP priority schools across Victoria participated in activities covering many fields of engineering. Designed to give an experience of different engineering fields, these included Mechatronic, Civil, Telecommunications, Aeronautical, Environmental and Software engineering activities. Workshops were run by representatives from La Trobe University, the University of Melbourne, Monash University along with valuable contributions from industry professionals with Golder Associates and Defence Force Recruiting.

Teams of students solved problems in different engineering fields. They had to plan, design and construct solutions using fundamental principles of engineering. This was followed by testing of each team’s engineering solution. Then, feedback was given by real engineers. Tasks included digital antenna construction, iPad App development, mechatronic robotic arm assembly and programming, water conservation from contaminated sources, parachute design and development, and suspension bridge construction. With plenty of opportunity to ask questions about the engineering profession students left feeling well informed about their future career options.

Comments on how the understanding of engineering careers had grown, included: "I learned how to present an idea/project to a group", "I had the opportunity to talk to engineers", and "I learned how to apply knowledge learned in class".

Other students described learning "there are more to engineering than maths and science" and "how many different options there are. I generally think the day made me even more excited than before".

All students who attended increased or maintained their interest in going to university to study engineering related courses.

**ROAD TRIP TO MILDURA**

Staff and students from La Trobe University’s Department of Electronic Engineering ran two Engineering Experience Workshops, a great opportunity for regional students to meet and interact with engineers. Day 1, 19 February, was at Charlton College with students from Wedderburn and surrounds also attending. Some participated in the Curiosity Bot Workshop, experiencing electrical and electronic engineering, while others joined the App Game Development Workshop to learn about software engineering.

Students commented: “University should always be considered as an option and there are always choices at uni”, and “It was really fun”.

Teachers commented: “It has opened up a variety of career options for students; an awareness of the pathway conversation to be broadened”, and “great intro - engaging!”. Good short sharp activities...students laughing and having fun was fantastic.

20 February saw the Engineering Experience day hosted by La Trobe University, Mildura. Students of Chaffey SC, Irimpyle SC, and Red Cliffs SC were introduced to various engineering professions in an informative introductory talk and got an insight into the principles behind different aspects of engineering. Then they became ‘engineers’ in three workshops:

- Electrical/Electronic Engineering - Curiosity Bot workshop involved the challenges of operating a remote control robot vehicle to navigate a course. With the help of current university students they learned about the engineering behind a robot and wireless control system.
- Software Engineering - App development involved making a game for a mobile device. Students learned games design fundamentals, created their own characters, then transferred them into a simple game application.
- Mechanical Engineering - Robot Grip Arm - a new workshop run for the first time at this event. Students learned about the application of mechanical engineering principles to the development of a robotic arm. After a short amount of theory they then spent time assembling their own robot arm and learned some simple command controls to get the arm to operate.

Students commented how much they enjoyed the sessions and learned from the day: “I learned how to program a robot and had fun”, “engineering has many interesting and different paths”, “engineers need to be good problem solvers.”

Teachers commented: “Terrific programs with many benefits for all parties: Thank you for providing it”, “better understanding of breadth of engineering. I can now discuss options as part of ‘career planning’.

Overall, these engineering experiences provided a great opportunity for the students to think a little more about the career possibilities out there and to gain a better understanding of what different engineers do.

**LEAP into...Health**

**TAKING THE NEXT STEP TO A CAREER IN HEALTH**

60 senior school students from around the state attended and informatics as engaging Next Step Health Workshop at the Alfred Hospital on 11 April. Held in the teaching facilities of Monash University at the hospital, it was an excellent opportunity for students to learn more of what it’s like to study at university. They learned what’s involved in completing health related courses and talked with current students who shared their learning experiences.

Merlin Barnet from Health Workforce Branch, Department of Health provided the students with a wonderful overview of the health profession and the key issues and health needs facing Victorians. Students got a real insight into the health professions that will be in demand in the future. Merlin concluded with important information on social media and the issues it raises from a health professional’s point of view.

Associate Prof. Rob Selzer from the Faculty of Medicine, Nursing and Health Sciences at Monash University gave an engaging presentation providing students with a clear insight into the university system. Rob introduced students to terminology commonly used and the typical structure of university courses.

Understanding what to expect is very important to help students feel confident about university study and teaching systems.

Kerry Tucker from Deakin University gave an informed session on university support services, making students aware of all the support mechanisms available to them during their university study. “Everything is there to help students achieve their best during their studies,” Kerry said.

LEAP into...Health arranged for three current university students to present their ‘learner journeys’ to the audience. Ben, a Monash University Physiotherapy student on placement at the Alfred Hospital, gave his personal insight into his experiences as a student and how he has found his placement to date. Emalka, from the University of Melbourne, is completing a Masters Degree in Audiology. After explaining who inspired her to pursue this career, Emalka spoke about living away from home and the different types of clubs and societies she’s been involved in. Jen, who is studying Biomedical Sciences at Deakin University, gave an engaging presentation on university support services, making students aware of all the support mechanisms available to them during their university study. “There is everything there to help students achieve their best during their studies,” Jen said.

LEAP...It’s health! Arranged for three current university students to present their learner journeys to the audience. Ben, a Monash University University physiology student on placement at the Alfred Hospital, gave his personal insight into his experiences as a student and how he has found his placement to date. Emalka, from the University of Melbourne, is completing a Masters Degree in Audiology. After explaining who inspired her to pursue this career, Emalka spoke about living away from home and the different types of clubs and societies she’s been involved in. Jen, who is studying Biomedical Sciences at Deakin University, gave an engaging presentation on university support services, making students aware of all the support mechanisms available to them during their university study. “There is everything there to help students achieve their best during their studies,” Jen said.
LEAP into...Health cont’d

She is interested in so many areas this course enabled her to try a range of areas before having to settle on one specific field. Jen also talked about how wonderful it’s been to meet like-minded people in her cohort. She reports that through high school a lot of her peers weren’t interested in the things that she was. She now has “so many friends who all love the same things as I do which is brilliant.”

It was great to see many students talking with the university students once the event ended, with so many questions! School students were interested in what they learned from the event: “How many different options there are. I generally think the day made me even more excited than before,” “There are jobs with names I have never heard of before. This widens my range of career options.” “Keep your options open and don’t just pick something you are good at but something you enjoy,” “More health professions than I thought. Learnt ways I could get into courses I want,” and “Learned about the structure of universities.”

While this event ran, LEAP offered a workshop for students’ parents’ guardians. They valued the chance to discuss university and health professions, to learn about scholarships, financial support and staff interactions. This session was run by School University Liaison Officers who work closely with LEAP priority schools across the State.

EUCHA HOSPITAL EXPERIENCE HAS STUDENTS LEARNING, LAUGHING AND LIFTING

What a thrilling day at Eucha Base Hospital. On 21 March, 80 students from schools in the area attended this Hospital Experience Day. The Local Learning Education Network and hospital staff were also on hand.

The morning session provided an understanding of the health sector and the many professions it offers. In the afternoon, students enjoyed several hands-on experiences, focused on clinical and professional roles. During a resuscitation practice, to the students’ surprise and amusement, the hospital’s simulated mannequins would groan and laugh just like a live patient. A highlight of the day was getting to work the electronic lifting apparatus, as well as experiencing it from a patient’s point of view.

The Hospital’s Mental Health representative Heather spoke to students about this field’s career opportunities and the continuing need to look at preventative counselling as well as treatment when career planning.

Students and their teachers valued the chance to experience this program in a hospital setting.

Many thanks go to the LLN and the Eucha Base Hospital for their support of LEAP within the region. Special thanks to Hospital Education Manager, John Carey, who shared his local knowledge of healthcare opportunities in the region. John also arranged and coordinated hospital staff and educators to assist with our hands-on afternoon activities.

LEAP facts and figures: 2014

Since the LEAP program began delivering activities to school students in term 1, 2013, the following results have been achieved:

* Over 230 events have been run for our target schools.
* Students from 200 targeted schools have participated in LEAP events.
* LEAP events have been attended by over 11,000 students from across the state. Well over 3,000 of these students have participated in more than one LEAP event.
* Over 3,300 students have experienced LEAP into...Engineering activities, our most popular profession.
* In late 2013, LEAP added Sciences to its original four professions (the profession of Business will be added in the second half of 2014).
* The majority of students attending LEAP events have been from Years 9 and 10.

From evaluations received our data shows:

* 90% of students found the LEAP activity interesting and enjoyable.
* 90% of students said participating increased their knowledge of the different jobs in the profession.
* 75% of students left with a better understanding of what studying at university involves.
* 97% of teachers stated their students found the LEAP activities interesting.
* 88% of teachers indicated they felt better equipped to talk to their students about university and the professions.

90% of teachers stated that participation in the LEAP event allowed their students to link in-school learning to the real world.

LEAP into...Law

WHAT CONSTITUTES A CRIME?

Senior students at Wonthaggi Secondary College wrestled with some interesting legal problems during their Next Step Law Workshop on 11 March. Students navigated their way through both the reasons for, and different sides to, our legal system. Many of the students had interesting perspectives on what constitutes a crime and what they would find the most compelling forms of evidence if they sat on a jury in a criminal trial.

The workshop also gave students a chance to consider the many different pathways into the law professions and ask about the everyday challenges of university students, from managing their timetables and contact hours to the many different options for law studies at university.

A TASTE OF UNIVERSITY AND THE LAW

In May the LEAP into...Law team ran numerous events. On 9 May Swinburne University hosted an introduction to the Legal Profession for regional schools Cohuna SC and Eucha SC. Students from Hampton Park SC discovered more about the legal profession at a Next Step Law Workshop on 26 May, while students from Lakeview SC attended Victoria University’s City campus for this workshop on the 30th. Visits to Dandenong HS and Healesville HS rounded off a busy month.

LEAP INTO...LAW HITS THE ROAD IN JUNE

Three schools in the Wimmera and Southern Mallee regions, Murtoa College, Warracknabeal SC and Dimboola Memorial SC all witnessed our Introduction to the Legal Profession event. Students learned about many different aspects of studying and working in the legal professions, as well as enjoying some hands-on workshop activities. LEAP into...Law then raised the bar for Year-12 students at Horsham College and Stawell SC, delivering Next Step Law workshops at both schools. Students found out what to do if they really wanted to take that ‘next step’ and pursue study or a career in the law, and were given an insight into the tools and skills they’ll need to succeed.

A BUSY END TO TERM 2

In two sessions on 12 June our Introduction to the Legal Profession activity was delivered to go students from Liddell Heights College then another go students from Rowville SC, as part of a multi-profession event hosted by Swinburne University’s Technology’s Warrnambool campus. Then on 15 June, around a hundred Year-12 students from Yarra Hills SC visited Victoria University, City campus for a visit and workshop. In two Next Step Law Workshops and take their next step toward a possible career in the law.

Rounding off a busy month, on 20 June, students from Bundoora SC joined with students at Charles La Trobe P-12 College for a multi-profession information day. The day saw 100 Year-12 students rotate through hands-on workshops and information sessions to learn about the legal professions and several other LEAP profession areas.

IS IT SAFE TO EAT?

The LEAP into...Sciences team started delivering activities this year and provided a great experience for Y 8 & 9 students at Federation University’s Mount Helen campus, Ballarat, on 28 March. Students from Ballarat SC and Mt Clear College got to experience the work of food scientists during an innovative, hands-on session in the University’s analytical laboratories. Following a great introduction by Dr Lara Wakeling on the work of food scientists, two workshops gave a taste of the work of a food scientist and an agronomist/viticulturist. Ensuring food products are safe for consumption and of a high quality is a key task for food scientists. Students got to experience this role, undertaking quality testing. Faced with five samples of very similar looking yoghurt, they applied scientific skills and principles to determine which were safe to ‘release to market’.

Students used a range of techniques to analyse the samples - visual, smell and pH. Next they learned the technique of applying a sample to a culture plate which would then be incubated to see what good and bad bacteria grew. Unfortunately the students couldn’t wait 24-48 hours to see the results, so photographic images of similar samples were examined instead. Dressed in their lab coats, safety glasses and gloves, they not only looked the part but all came to the same conclusions as to the quality of the samples.

In the second workshop the aim was to determine the ripeness of different foods. This is a critical technique used by an agronomist/viticulturist to identify the best time to pick the crop. Armed with garlic crushers, beakers, pipettes and a Brix meter (indicates the sugar content of liquids) the students went to work analysing citrus fruits, grapes and corn. Again they applied good techniques, were accurate, consistent and methodical in their observations, producing quality results.

The students had a great time on campus, an experience heightened by the opportunity to interact with real scientists and current university students.

FORMULATION CHEMIST - WHAT'S THAT?

On 20 May LEAP into...Sciences introduced students to the world of the Formulation Chemist. Students saw the science behind “slip, slop, slap,” and in the process, discovered a new career option in science. Curious Year 10 students travelled from Kyneton SC to La Trobe University’s Bundoora campus, for this Health and well-being event. They soon learned about Formulation Chemistry and its significance in the development of personal care products. Everyday examples of formulations are sunscreens and many other pharmaceutical products, adhesives, paints, inks, cosmetics and detergents. Acknowledging the need to protect ourselves from sunburn, students undertook a sunscreen formulation exercise. First they prepared various concentrations of a sun blocking compound. Then, using sophisticated testing equipment, they assessed the sun blocking performance of these formulations.

Students were surprised to learn this area of science has a well-established career path and that Formulation Chemists are in demand, highly employable and can work in a wide range of industries including the pharmaceuticals, cosmetics, home and personal care, agri-chemicals, food science and fuels industries.

LEAP into...Business

Coming soon: LEAP into...Business

The LEAP website will shortly undergo some changes.

We’ll be adding of our sixth LEAP profession area, Business.

The wealth of information available in Design, Engineering, Health, Law and Sciences will remain, and progressively be reviewed to keep it current and effective.

Over time, the information in the new Business pages will also be expanded and reviewed.

The website’s Home page will soon acquire a new look, with an interactive banner feature designed to assist students to navigate easily to their profession of interest.

We hope you like it.

Stay in touch with the LEAP Program and receive regular news, information about upcoming events and website updates, by subscribing to the LEAP e-newsletter.

www.leap.vic.edu.au/subscribe