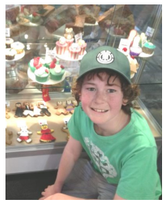
How many hats does a farmer wear?

Plumber, weather forecaster, agro-forester, veterinarian, business manager, nutritionist … juggler? Year 1 & 2 students learning about Our Community investigated the range of a farmer's skills, and the occupations of others engaged in the community.

Cheese Please!

The science of making cheese, the marketing of cheese and other dairy products, cheese tasting and judgement, video making and public speaking skills—all this and more sits behind Year 8 Science students' experience of Dairy Australia's Camembert in the Classroom.

Best in Show



The Royal Melbourne Show displayed products from Food Technology students' work. Their other units include Food in Agriculture, Good Food, Good Health and the Stephanie Alexander Kitchen Garden program.

Get into Genes

Explore gene technology in modern agriculture—why not? In the laboratory and on farm, Year 10 Science students investigated gene technology, electrophoresis, AI, genomics and embryo transfer with tertiary partners, a local farm business and a local veterinarian.

Safe on the farm

The Year 5 Farm Safety unit includes sessions on animals found on farms; farm machinery, vehicles and traffic; chemicals; safety in the dairy; and what to do in an emergency, including DR ABC, delivered by a local CERT team.

A learning precinct

Units from Certificate II and III in Agriculture were delivered in the dedicated Ag classroom, and on the new Ag precinct this year, for the first time since the 1940s. Six students from three schools worked with the trainer, a local agronomist and farmers to develop their skills and the new Ag precinct.

Maths mates

Year 9 maths has been based on a heifer raising business, Year 10 on the recovery/rebuilding requirements of a flooded farm property, and VCAL maths used irrigation. Ag-based maths units for other years will be developed with industry partners.

What affects plant growth?

Year 3 students investigated effects on plant growth. They conducted experiments on plant structure, germination, soil layers and fertilisers, culminating in building a vertical garden and an excursion to an organic dairy farm and a plant nursery.

Timboon Agriculture Project was supported for its first twelve months by funding from the Gardiner Foundation, via WestVic Dairy, which continues to support the TAP through the employment of the coordinator. Infrastructure development necessary for the project was funded by an Empowering Local Schools grant from the Federal Government. Brophy's School Focussed Youth Service provided funding for TAP's On!, in November 2013 in which students share their learning with students from other year levels and other schools, and the whole TAP curriculum is showcased to the community. ANZ Seeds of Renewal has provided funding for the purchase of a lavender still.

However it is the excellent work done by our teachers, supported by industry experts; and student access to the skills and knowledge that reside in our local community that are the most valuable assets of the TAP. The hundreds of hours of time provided by agricultural and other community members in direct delivery of curriculum, development of infrastructure or in teacher professional development has been, and will continue to be, key to the ongoing successful development of the project.

timboon P-12 School — Strength Through Understanding

WestVic Dairy — Dairy Australia — Your Levy at Work

Timboon Agriculture Project

a continuing partnership to enhance student learning

The partnership project started by Timboon P-12 School and WestVic Dairy in mid-2012 has grown beyond expectations through the generous sharing of skills and knowledge by local community members and businesses: dairy farmers and other agriculturalists and horticulturalists—working with beef, ducks, sheep, chickens, lavender, strawberries; agricultural service providers from fencing contractors to vets to agricultural research scientists; major dairy processors and boutique food manufacturers; community service providers, school teachers and parents.

This update, nearly 18 months into the project, should be read in tandem with the first edition, April 2013, which establishes the context, reasons for and objectives of the project.

Teacher professional development

A key feature of the TAP is the ongoing professional development of teachers and the sharing of knowledge.

Four secondary maths and one commerce teacher, and four Year 3/4 teachers have undertaken on-farm professional development activities under the leadership of the project coordinator.

Two secondary Science teachers learned how to make, and teach the making of camembert cheese from a master cheesemaker. Two teachers have completed the Stephanie Alexander Kitchen Garden training program.

A Professional Learning Team in the Science key learning area has mapped existing and planned TAP curriculum development against the National Curriculum; and a Maths PLT is planned for 2014.

Sharing the knowledge

School staff and other project partners have been invited to share their experiences and knowledge of the TAP at regional and national education and industry conferences.

The school's commitment to the TAP resulted in it being shortlisted for two Victorian Education Excellence Awards, in Community Partnerships, and in Curriculum Innovation.

Visitors from other schools, from teacher training institutions (including from Japan), and from national agricultural institutions have visited the school to learn more about the TAP.

In TAP's On!, in November 2013, students share what they have learned with students and teachers from other year levels, and with students from other schools as well as their community and industry supporters.

TAP is curriculum driven – its primary aim is to support student learning outcomes. See the April 2013 edition, and read on for a taste of the new curriculum delivered.

Year 7-8 elective: TAP into Science and Cows Create Careers

Dairy Australia's Cows Create Careers program is delivered to schools in dairy regions across Australia. Value is added to the program at Timboon by the extension of the curriculum activity to go deeper into the science behind dairy farming and to engage more fully with industry.

In the Term 1 unit, TAP into Science, the curriculum focus was on scientific experimental design; animal nutrition, digestion and anatomy, focusing on dairy cows; cow welfare; farm design and technology and the historical development of agriculture.

This was supported in the classroom by a large animal vet, and in the field by three local dairy farms. Students were able to compare what they had learned in the classroom with the design of and practices conducted at the farms they visited.

In Term 2, calves supplied by a local farmer were cared for, monitored and measured as the students embarked on the Cows Create Careers activities, in support of science, careers investigation and literacy curriculum.


Holy Cow! They're the best

Timboon team wins dairy award

To the single industry advocate provided for by the official program, TAP added a range of industry speakers, an investigation of dairy products and an industry excursion.

Timboon P-12 fielded the winning Junior team, and was the 2013 winning school in the Junior division of Cows Create Careers , Western Victoria region. The $500 prize was invested by the school's Science department in cheesemaking equipment.

Cows create careers in science

A DEPI Agricultural Research Scientist launched Science Week at the school, had a careers session with senior Science students, and delighted Year 4 with an explanation of methane research in the dairy industry.

Year 6—The Chicken and the Egg

A simple concept: kids raising chooks—has resulted in complex curriculum outcomes. Students first investigated all of the elements that have to be considered to create and manage a sustainable egg producing business, and then implement the decisions made. They were assisted in this by poultry club members and a local egg producer.

This year they incubated and hatched eggs, assisted VCAL students to build a fox-proof hen house and run, and devised and filled rosters to care for the chooks. Excess poultry raised will be auctioned to subsidise ongoing feed costs.

An exploration of chook breeds led on to an investigation of sustainability and diversity, culminating in an excursion to a National Trust farm to learn more about rare breeds and the importance of genetic diversity in agriculture.

Year 5—Duck Days

Tracking the growth and development of a duckling from hatching to adulthood provides a lot of maths lessons. So does calculating the cost of their feed and housing, and the potential profits to be made if they are sold. Learning the hard way that not everything survives, and how to feed and care for the survivors requires more of the science curriculum; and when your duck producing mentor is also a journalist and blogger, and markets his products directly to swish restaurants in the city, there's a whole extra world of communication tied to these birds.

Oh, and the students had to figure out how to put together a duck house, and turn up to school early on their rostered-on days to clean out the pen and water, and feed the ducks. There's not much of the Year 5 curriculum that these birds couldn't contribute to, in one way or another!

Year 4 TAPping into Farm Science

An excursion to two farms—one beef, one dairy—focused student learning on how the sustainable management of resources helps people to plan future actions.

On farm, the students were led by farmers, farm staff and service providers for an introduction to soil, irrigation, water recycling, effluent management, milk harvesting technology, genetics, different types of feed and animal health.

Classroom activities and visitors expanded on this experience to help students focus on the questions: What does sustainability mean? What science helps a farmer? What makes a fair experiment? Students set up simple experiments, collected data and presented their findings to the class. They then evaluated and wrote up the results .

From Prep to 10, from paddock to plate: the fun and science of food

Students' pleasure in eating good food—especially if they make it themselves—underpins a sequential learning pathway in science, food technology, numeracy and literacy based on where food comes from; how it is produced, harvested and prepared; and how people make a business from producing, processing and selling it.

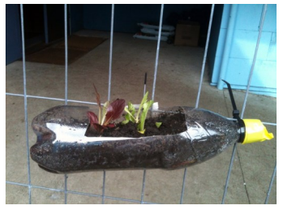
Supported by access to the Ag precinct and school gardens, Prep students begin by investigating the needs of living things, and growing seeds; Year 1 &2 students explore the local community and start to understand the diversity of local food production and processing; Year 3 examines the structure and function of plants and their growth, experimenting with different soil management techniques to grow their own produce in a vertical garden.

Year 4&5 students deepen this understanding through the Stephanie Alexander Kitchen Garden Program, and extend it into the next stage: planning, planting, gardening, cultivating and then cooking meals based on the produce grown at the school. Food Technology students in Years 7&8 mentor the 4/5 students in the preparation and presentation of the food. The Yr 4/5 students invite special guests to share their feast each week.

In "Taste of Corangamite", Year 9/10 Food Technology students link up with local food artisans—producers and chefs — to extend their knowledge and skill in sourcing and using local produce to extend their culinary repertoire.

From growing food crop seeds in Prep to meeting local producers in Year 2 to making butter in Year 5 science to the preparation of local produce for a fundraising high tea in Year 10, the focus on food supports curriculum outcomes in Science, Civics and Citizenship, Literacy, Numeracy and Food Technology across all year levels.



Year 9-10 Commerce: Lavender on TAP

1000 lavender plants form the basis of a business enterprise being developed in support of curriculum, in response to student demand at the conclusion of the first TAP Small Business unit.

Mentored by a retired local lavender producer, the students investigated and sourced different species of lavender plants and developed a business plan. After the first plantings were waterlogged, a local horticulturalist volunteered to mound the soil as he does for his strawberries. Assisted by the VET Agriculture students, the class, plus community volunteers, laid drip irrigation pipes and black plastic before planting the lavender.

Lavender products will be developed and marketed from the range of plants selected for the project. Extraction and distillation of the oil from mature plants will develop as part of the science curriculum. TAP has been funded to purchase a still for this purpose. Food Tech and Textiles students will make use of some of the leaves and flowers. The plantation itself will also be available to support other curriculum activities. The business will be managed by successive classes of elective Commerce students, under their teacher's guidance.