

Case study

Aldavilla Public School

Aldavilla Primary School opened in 1992 and is located west of Kempsey in a rural setting close to the Macleay River and Stuart McIntyre Dam. In 2010 it had an enrolment of approximately 250 students, with a significant percentage of Aboriginal students.

The school ethos

The school motto 'Caring, Co-operation, Courtesy and Commonsense' promotes the values of respect and responsibility and the school strongly supports student citizenship and leadership through the Student Parliament and debating. Environmental Conscience classes encourage student leadership, cooperation, tolerance and environmental sustainability.

After a long involvement in environmental activities such as National Tree Day and plantings, in 2008 Aldavilla Public School began a more integrated sustainability program with a blossoming of new activities with a sustainability focus. A plan to improve the playground evolved into a much larger sustainable education program incorporating sustainability and environmental learning into the curriculum. Environmental activities have changed the way students view sustainability and the role of individuals in protecting the environment. In 2010 the school won the Director- General's School Achievement Award for Environmental and Sustainability Education for its Human Sign Project.

Getting started and governance

Initially, students and teachers were concerned with tidying up the grounds and replacing wooden structures that had been destroyed by termites. This led to the replacement of retaining walls, planting new shrubs and creating an amphitheatre to form an outdoor classroom. The Principal and a Community Projects Coordinator sourced funding for projects from school fees, grants, community fundraising and donations. The Community Projects Coordinator's salary is partially funded through the Priority Schools Program. Volunteers helped with outdoor construction and through this process, teachers and students engaged with the local environment and wider school community. The Coordinator's role and strong Principal support has been crucial to the program.

Establishing links between practical activities and classroom learning outcomes was a challenge for the teachers. The school decided to develop a School Environmental Management Plan (SEMP) that concentrated on building sustainability learning into the curriculum, management of resources and of school grounds. The school referred to the Sustainable Schools NSW (SSNSW) website when developing and writing its SEMP.

Student engagement and environmental leadership are in the school's Action Plan as including students in decision-making is part of the school's commitment. The responsibility to drive the Human Sign project was with the schools' Student Parliament and they were approached for suggestions to create sustainable areas and to improve the school grounds.

'A strong environmental conscience can be communicated through our students to family friends and the wider community to create wellbeing for all.'

**Community Projects Co-ordinator,
Aldavilla Public School**



Strengths

- strong school ethos and Principal support
- student leadership via the Student Parliament
- building sustainability into the curriculum
- networks and partnerships driven by the Community Project Coordinator and students.

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Teaching, learning, curriculum

In 2009 Aldavilla Public School introduced integrated units of learning focusing on the environment. The unit 'Biodiversity' was integrated into Stage 1 English, maths, visual arts, sport, dance, music and interpersonal relationships. The students classified organisms into groups, wrote reports and poems, drew animals, conducted a biodiversity audit in the playground, and sang and composed music. Other students completed the 'Permaculture' unit where they learnt about permaculture, companion planting and plant classification. Students also analysed the soil and built a functioning compost heap. They then created plays, paintings and music in response to their learning. In Stage 3, the students studied 'Ice Cap Indignation'. All Key Learning Areas (KLAs) are covered in the history, geography and science of Antarctica, as well as the impact humans have had on this fragile environment.

In addition to studying units of work, students are involved in special projects. Stage 1 students plant pumpkins for the Junior Landcare Pumpkin Challenge. They weigh the pumpkins and graph the results. Stage 2 students grow spinach in their weekly Environmental Conscience classes. The class revolves around a range of environmental issues and a focus on healthy eating, with teachers volunteering one hour towards classes. While one benefit of the Environmental Conscience class is that the children become used to eating healthy vegetables, they also learn about marketing. Last year each student received a bunch of spinach and sold the surplus to staff. Students also calculated the budget to purchase ingredients for a spinach quiche cooking day. Garden Grubs – a volunteer group of students who maintain, weed, tidy and mulch school gardens once a week – is an outcome of the program. With these activities, learning for sustainability is an across curriculum perspective.

Resource management

Aldavilla Primary School has installed solar panels to supply some of its electricity, and feeds the excess back into the grid during the weekends and holidays.

A 90,000-litre in-ground concrete water tank is used to irrigate gardens and ovals, and flush toilets. Maintenance includes checking for dripping taps and cistern efficiencies, and mulching gardens to retain water. The school was Waterwise accredited in 2007.

Saving energy is encouraged. Students have learnt to remember to turn off lights, make use of natural light and ventilation, and to keep doors and windows closed when using the air-conditioning. There are paper and plastic recycling programs, as well as worm farms and compost heaps.



School grounds

Building sustainability into the curriculum had flow-on effects on the school's physical environment. Students suggested ideas to improve the school grounds to make it more sustainable. As a result, the school grounds have been enhanced by a new rainforest garden and a frog pond, where students can observe the lifecycle of frogs. Students suggested designs for the frog pond, helped build it and help with pond maintenance through regular cleaning and refilling. The garden and pond also attract water birds into the school.

More than 45 orchard trees have been planted, including oranges, lemons, mandarins, limes, tangelos, avocados, carob, figs and macadamias. This benefits the environment by teaching students how to grow healthy food, save water, compost and recycle, identify fruits and plants, and use worm farms. The fruit complements the school's healthy eating programs which have grown from the Healthy Canteen, which has been at the school for many years.

In 2008, Aldavilla Primary School received an Eco Schools grant from the NSW government's Environmental Trust to build an outdoor environmental classroom. The students were involved in all steps of the project from design to excavation, preparation, planting and ongoing maintenance. A hands-on approach and commitment to this project enabled students to link the practical with the theory in many subjects taught in the school curriculum including numeracy, literacy, science, writing reports and scientific papers. The outdoor environmental classroom enabled students to learn about sustainability among the flora and fauna and be more effective and productive than in the classroom. The school's Environmental Conscience classes are held in the outdoor classroom.

Networks and partnerships

The school received a Coles Junior Landcare Grant to extend the vegetable garden. The local Coles store donated seeds, gardening implements and signage, and a local company supplied over 15 metres of Re Earth (garbage that is turned into soil).

A Kempsey Shire Council project for a biotreatment swale was designed to treat stormwater before it entered the creek. The school planted out the swale with the help of a Waterwise educator.

The school also received a Durri Aboriginal Medical Service Grant for the planting and maintenance of an orchard and Centrelink donated trees.

In 2009 Aldavilla Public School was the lead school in a Human Sign Project. Seventeen local public schools joined the school to create human signs to raise awareness about global warming and climate change. Aldavilla selected the topic 'Future?' because it signified the need for all people to be concerned about the environment and to reflect on what action could be taken for the sake of the future.

The Human Sign Project received support from the RSL, local credit union, local council, and water and electricity authorities. The money donated paid for the hiring of a helicopter for aerial photography and the production of 4000 DVDs. An equivalent number of trees were planted to offset the carbon emission of the helicopter.

Learning outcomes

Students involved in learning for sustainability are more aware of food production, environmental issues, and the actions each person can take to make the community more sustainable.

Students are better engaged through active learning and decision-making in the Student Parliament.

Students now have an expectation that they will be involved in environmental activities. The program is 'not teacher reliant but student focused – and it is a work in progress'.



The school now has exceptionally strong links to fellow schools, government authorities and businesses, developed through its sustainability programs. The most pressing professional learning requirement is 'the need to link sustainability to the curriculum'. To deliver this outcome the school provides in-house and in-time learning. Staff can discuss ideas and attend workshops through links with the Department of Education and Communities' Environmental Education Centre and Landcare.

Learning for sustainability has become embedded in the school curriculum. All students, Kindergarten to Year 6, engage in practical activities, such as tree planting, which are supported by informative lessons.

In an interview in the Daily Telegraph (5/08/10) Aldavilla students were asked, 'What changes would you make if you were Prime Minister?' Three of the eight responses had a sustainability focus:

'I would get cars installed with batteries so there would be less pollution and construct battery charging stations on the highways.'

'We should be using solar energy because it would reduce the bills.'

'I would lower the prices of water because it should be free, as it is an essential everyday need.'