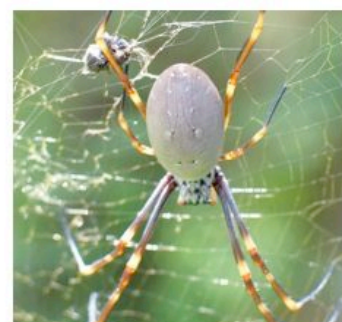
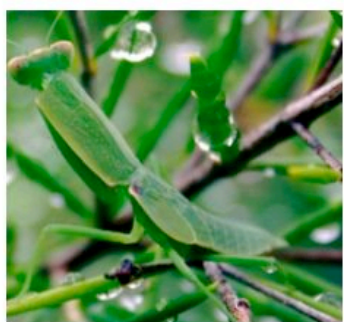
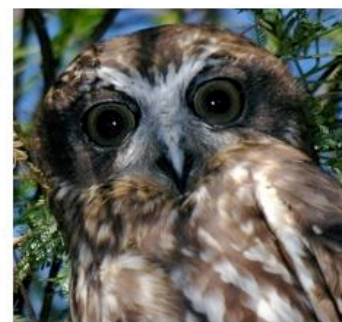
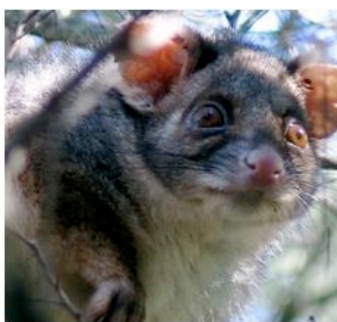
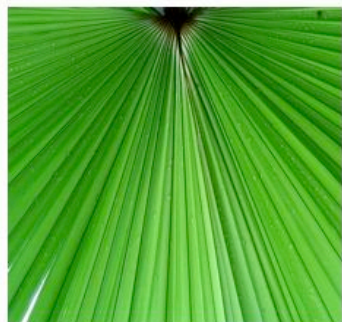
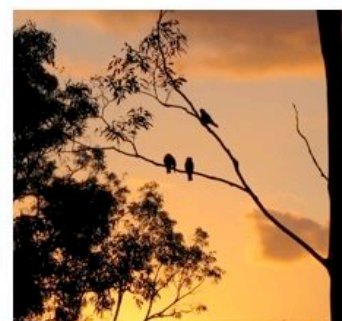
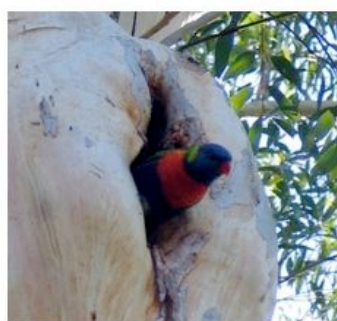
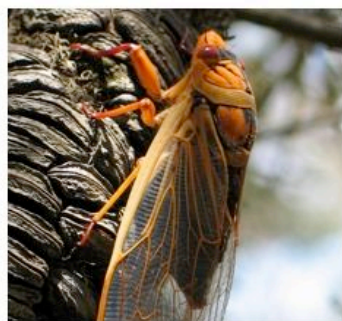


2012 Annual School Report

Field of Mars Environmental Education Centre

NSW Public Schools – Leading the way



Principal's message

One of the key goals of the Field of Mars Environmental Education Centre (EEC) is to ensure students have high quality authentic and challenge-based learning experiences in natural settings. Research suggests that when students experience quality time in these environments there are a range of measurable benefits including increased creativity, increased resilience and reduced stress. Students are calmer, better at critical thinking, their behaviour improves, attention span improves, signs of attention deficit disorder are reduced and finally the students tend to do better in standardised tests. The benefits to taking students outside are therefore real and quantified and as an educator one of the biggest benefits is that it leads to engaged, self-regulated learners.



During 2012 the centre continued its emphasis on the provision of new and innovative ways to deliver sustainability education throughout NSW. The centre developed cross curricular programs that apply higher-order thinking for a real-world purpose. These programs have a strong focus on literacy, numeracy, visual arts, science and technology and are exemplars of the high-quality learning that can be accomplished using mobile and connected classrooms technologies. The teaching and learning in our programs been carefully planned to be student-focussed and driven in line with contemporary educational best practice and curriculum priorities and is clearly focussed on the quality teaching dimensions of intellectual quality, significance and quality learning environments.

I certify that the information in this report is the result of a rigorous school self-evaluation process and is a balanced and genuine account of the school's achievements and areas for development.

Steven Papp

Principal



School Context

The Field of Mars EEC is one of 25 Environmental Education and Zoo Education Centres run by the NSW Department of Education and Communities (DEC).

EECs provide authentic contexts for exploring, investigating and understanding values, concepts and systems in the natural and made environments. We equip students to design solutions to real world sustainability problems.

The centre is located in a reserve of remnant urban bushland in East Ryde. It offers programs to support schools and their communities with environmental and sustainability education. Programs are conducted on site at the Field of Mars Reserve, at other sites such as local reserves, in school grounds and via connected classrooms video conferencing technology.

The centre also provides support, advice, training and resources for teachers. It is used as a workshop venue for schools and other professional learning meetings.

Visitor profile

The centre provides professional learning for teachers and learning activities for students in many different formats, including incursions, excursions, units of work, video conferences, theme programs and mandatory fieldwork.



Total incursion and excursion student numbers by term:

	2012	2011	2010
Term 1	3417	4041	3301
Term 2	2717	3230	3342
Term 3	3104	2434	3507
Term 4	3570	3169	4423
Total	12808	12874	14573

Virtual student numbers:

	2012	2011	2010
K-12	5689	2026	735

Combined virtual and physical student numbers:

	2012	2011	2010
Total Students	18497	14900	15308

Percentage of students per stage groupings:

	2012	2011	2010
Stage ES1 - 3	78%	83%	84%
Stage 4 – 6	22%	17%	16%

Greenspeak student numbers:

	2012	2011	2010
K-12	777	350	NA

Learning for Sustainability Video Conference Festival participant numbers:

	2012	2011	2010
K-12	11174	9988	6375

Student leadership numbers:

	2012	2011	2010
Primary	237	180	NA
Secondary	140	116	NA



Teacher Professional Learning numbers:

	2012	2011	2010
K-12	1109	923	763

An increasing emphasis on the provision of student leadership and connected learning has provided opportunities for students to participate in centre programs beyond our traditional audiences. Participation rates in these new programs and initiatives increased significantly in 2012.

Staff information

It is a requirement that the reporting of information for all staff must be consistent with privacy and personal information policies.

The principal and teacher are supported by valuable input from a variety of specialist casual teachers, a school administrative manager and a general assistant. This variety of staff greatly increases the creativity of responses to new curricula, provides a greater pool of knowledge, experience and self assessment options and ensures consistent delivery of programs. All staff are highly experienced in both classroom teaching and environmental education in a variety of contexts.



Position	Number
Principal	1
Classroom Teachers	1
Total	2



Staff establishment

Staff retention

There has been no change in the principal and teacher positions.

Indigenous staff

There are no indigenous staff currently working at the centre.

Teacher qualifications

All teaching staff meet the professional requirements for teaching in NSW public schools.

Qualifications	% of staff
Degree or Diploma	100
Postgraduate	50

Financial summary

This summary covers funds for operating costs and does not involve expenditure areas such as permanent salaries, building and major maintenance.

Date of financial summary 30/11/2012

Income \$

Balance brought forward	61107.83
Global funds	45331.11
Tied funds	87946.93
School & community sources	171170.77
Interest	1857.98
Trust receipts	0.00
Canteen	0.00
Total income	367414.62

Expenditure

Teaching & learning	
Key learning areas	131045.96
Excursions	0.00
Extracurricular dissections	10378.45
Library	916.29
Training & development	13417.55
Tied funds	93245.15
Casual relief teachers	0.00
Administration & office	44797.48
School-operated canteen	0.00
Utilities	4639.92
Maintenance	5149.04
Trust accounts	0.00
Capital programs	11313.64
Total expenditure	314903.48
Balance carried forward	52511.14

A full copy of the school's 2012 financial statement is available. Further details concerning the statement can be obtained by contacting the centre.

School performance 2012

Significant programs and initiatives

The centre expanded its range of connected classrooms programs that are available to all schools state wide. These included lessons focusing on worm farming, nest boxes, invertebrates, observational drawing and printing, habitat design and literacy.

The centre collaborated with a range of education providers from DEC and non-government

organisations to successfully expand the Learning for Sustainability Video Conference Festival.

The centre coordinated the Climate Clever Energy Savers Program. Through this program, 18 primary schools and 49 teachers have collaborated to develop energy efficiency focused teaching and learning programs.

Centre staff worked with Northern Sydney Region (NSR) teaching and learning consultants to integrate education for sustainability and environmental education into teacher professional learning activities.



Student leadership

The centre collaborated with other EECs to design and implement two successful student leadership events. The Year 7-10 Enviro Forum at Taronga Zoo and the Year 3-6 Enviro Expo at Field of Mars EEC were attended by 377 students.

Greenspeak is a new video conference festival that was successfully piloted in 2011. Greenspeak provides a platform for students to showcase sustainability successes in their school. Students are supported to design and run their own interactive virtual session for other interested students from schools across the state. This event is based on a Kids Teaching Kids model. The Greenspeak event featured six sessions hosted by students with a viewing audience of approximately 777 students from nineteen schools.

Greenspeak was the recipient of a Learning for Sustainability Award of Excellence in 2012.

Aboriginal Education

Aspects of Aboriginal culture and knowledge are integrated into most of the centre's programs.

The centre offers specific programs that educate students about the traditional Aboriginal inhabitants of the area, their relationship with the land and their use of bush resources.

Multicultural Education

All EEC programs are developed to be suitable for, and sympathetic of, students from various cultural and religious backgrounds.



Other programs

Environmental Management

In 2012 we continued to focus on initiatives that resulted in saving water, increasing energy efficiency and increasing biodiversity. These initiatives were shared as exemplars of sustainability in schools.

The centre continues to use 100% green energy that resulted in zero tonnes of carbon being emitted into the atmosphere.

In 2012 the centre installed a 6.58kWh solar system as part of the federal government's Solar in Schools program. On most days this system generates more energy than is used. In the period that these panels were operational the total energy generated was 6824.633 kWh.

To further reduce energy consumption the centre installed Solatubes to replace existing electrical hallway lighting.



Progress on 2012 targets

Target 1

To increase the diversity of quality sustainability education programs aligned with new NSW BoS Syllabus and the new Sustainability Education Policy.

Our achievements include:

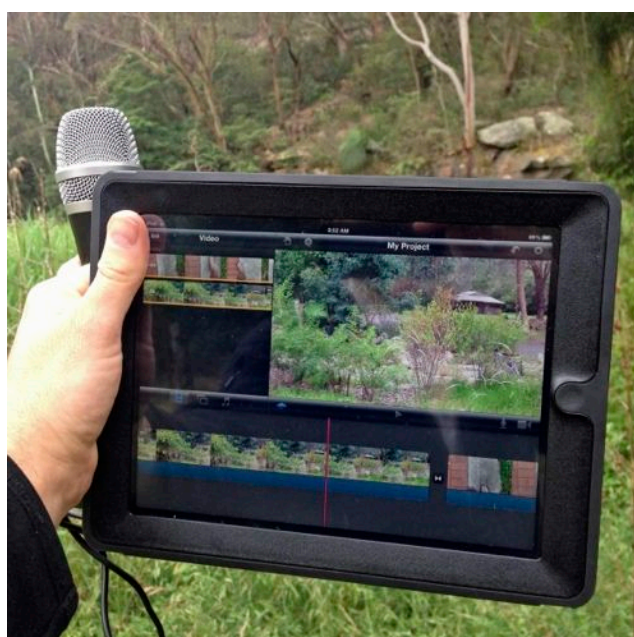
- The development and implementation of new student focused excursion and incursion programs that focus on the 21st century skills of higher order thinking, problem solving and collaboration.
- The development of six new video conference collaborative outreach programs with participation from 5689 students from across NSW. This represents a growth of 180.8% on 2011 participation numbers.
- Successful evolution of the annual Learning for Sustainability Video Conference Festival. Over ten days the festival featured over 80 interactive video conferences delivered by teachers, students, EECs and other government and non-government sustainability providers. This year approximately 11174 students and teachers participated in the festival making it the largest video conference learning event in Australia.

This is an increase of 11.87% over 2011 participation numbers.

- Successful development and implementation of student leadership programs.
- Provision of support and advice to schools on education for sustainability.

Future directions:

To focus on the continued development of quality sustainability education programs that meet the needs of teachers and support the implementation of the new NSW BoS syllabuses.



Target 2

Increase student engagement in authentic learning through the use of mobile devices.

Our achievements include:

- The successful development and implementation of authentic learning programs such as Documentary and Murder at Mars. Documentary has a strong literacy focus and introduces students to documentary making using an iPad. Students work as filmmakers to create a documentary focusing on living things found in bushland in their local area or at Field of Mars Reserve.
- The integration of iPads into Digital Woodlands, a popular student photography program.

- The development of programs that include the use of multimodal texts including Murder at Mars.
- The integration of mobile devices into secondary programs such as the numeracy focused Yr 8 Maths Field Factors.

Future directions:

To increase the use of mobile devices to support authentic learning in a variety of settings.

Target 3

To build teacher leadership capacity in environmental and sustainability education through the provision of quality professional learning.

Our achievements include:

- A significant investment of centre funds to increase the capacity of full time and casual centre staff to lead the development of digital outreach programs and the integration of mobile devices.
- The development of a professional learning workshop focusing on the use of iPads in the field and associated pedagogy for staff from EECs, National Parks and Wildlife Service, and NSW DEC Curriculum and Learning Innovation Centre and regional teaching and learning consultants. This has resulted in the development of collaborative projects such as Animal House and many EECs introducing mobile devices to support authentic learning.
- The development of workshops focusing on the technology and pedagogy of delivering digital outreach programs using video conferencing and data collaboration software to staff from EECs and NSW DEC Curriculum and Learning Innovation Centre.
- Providing environmental and sustainability focused professional development workshops for 1109 teachers.

Future directions:

Work collaboratively with NSW DEC EECs to develop accredited professional learning programs on the use of mobile and digital collaboration technologies.

Key evaluations

It is a requirement for all NSW public schools to conduct at least two annual evaluations – one related to educational and management practice and the other related to curriculum. In 2012 our school carried out evaluations of our digital outreach programs and professional learning for centre staff.



Curriculum

Digital Outreach Programs

Background

Over the past two years the centre has been developing and refining its digital outreach programs delivered using DEC connected classrooms technology. These programs have a focus on student engagement and quality authentic learning across a range of Key Learning Areas (KLA).

The response to the diversity and quality of these programs has been outstanding and the centre has seen a significant growth in participation from schools and students from across NSW.

5689 students participated in our digital outreach programs in 2012. All participating teachers were emailed an online evaluation survey following the

program and Field of Mars EEC staff conducted a self-evaluation.

Findings and conclusions

Teachers provided very positive comments anecdotally and in the survey. In the survey, 93% percent of respondents said that the students were engaged or highly engaged during the program.

The majority of respondents indicated that the programs achieved their aims:

	1 (low)	2	3	4	5 (high)
Content	0%	3%	5%	22%	70%
Student Engagement	0%	5%	2%	23%	70%
Interactivity	0%	4%	2%	36%	58%

Evaluations demonstrated that our digital outreach programs have exceeded expectations.

"The outline of what to expect that we were sent clearly matched the event itself. The presenters were fabulous and did a great job of interacting with students."

"The children thoroughly enjoyed the content and were motivated to continue in class and at home."

"Fabulous. The magical disappearance of the nesting box and its appearance at our school was a great idea and thoroughly appreciated by the students. Oh, and the content of the VC was excellent and most age appropriate for the stage one/ stage two students."

Based on staff evaluations we have reduced the number of schools that can participate in most sessions from four to three. This ensures that all schools can participate in parallel interactive Bridgit data collaboration sessions running on IWBs without significantly impacting on the pace of the video conference.

Future directions

To continue to expand the diversity of the centre's digital outreach programs and to investigate opportunities to cater for the needs of secondary schools and teachers.



Educational and management practice

Professional Learning for Centre Staff

Background

Field of Mars EEC employs a range of specialist casual teachers to assist with delivery of EEC programs. Each program requires specific professional learning of staff to ensure quality delivery. Accordingly, in 2012 the centre continued its review of staff competencies and identified needs and opportunities for staff professional learning.

Findings and conclusions

Using a staff experience self-assessment matrix and collegiate discussion the centre identified strengths and weaknesses in collective program experience.

In-house professional learning sessions for centre staff resulted in an increase in the quality of centre programs and ensured standardised delivery of centre programs. It has resulted in the development a team of dedicated teachers who are capable of developing and delivering authentic learning that is meaningful and relevant to 21st century learners.

An increase in time spent on professional learning resulted in increased collaboration opportunities amongst centre staff. This led to the development of new high quality centre programs and initiatives.

Future directions:

Funding has been allocated in 2013 to ensure professional learning occurs for all permanent, part time and casual staff in the areas of curriculum

planning, program delivery and associated pedagogy.

Professional learning

Professional learning is provided to all permanent and casual staff in the centre through in-house workshops and sharing sessions or via other professional learning providers.

Centre teachers attended the NSW EEC annual conference in Lismore. This provided the opportunity to develop knowledge and skills in environmental education and education for sustainability with a focus on learning for sustainability.



Professional Learning Expenditure

TPL \$2537.27 (tied grant)

PL \$10880.27 (global funds)

This is a significant increase over 2011 expenditure and is required to ensure the development and delivery of high quality centre programs.

Professional learning included attendance at:

- Slide 2 Learn
- Adobe Connect training
- Inspire/Innovate
- iPads in Education
- Taking it mobile and making it challenging.
- Video Conferencing and Brigit training
- Leadership Forums

- SASS Conference
- SASS GA Conference
- Apply First Aid
- AITSL illustration of best practice video production.
- Nature Education Symposium

Parent, student and teacher satisfaction

In 2012 the centre sought opinions of parents, students and teachers about the centre.

Discussion and unsolicited feedback indicates a high level of satisfaction with the centre's programs and our interactions with staff and students.

In particular, comments indicate that experiences are engaging, memorable, informative and relevant.



School planning 2012–2014

Priority 1 - Student Learning

Outcome for 2012–2014

All students will be provided with quality differentiated sustainability education programs that support increased achievement in literacy and numeracy.

2013 Target

To increase the diversity of quality sustainability education programs aligned with new NSW BoS Syllabuses.

Strategies to achieve this target include:

- Audit of new syllabus documents and review current centre programs.
- Collaborate with NSR teaching and learning consultants and Gibberagong EEC to develop new or revised programs aligned with NSW BoS syllabuses and the Quality Teaching Framework.
- Develop supporting digital and interactive whiteboard (IWB) resources to enhance student engagement in new programs.
- Participate in collegial professional development sessions focusing on the delivery of environmental education in a variety of educational settings.

Priority 2 - Connected Learning

Outcome for 2012–2014

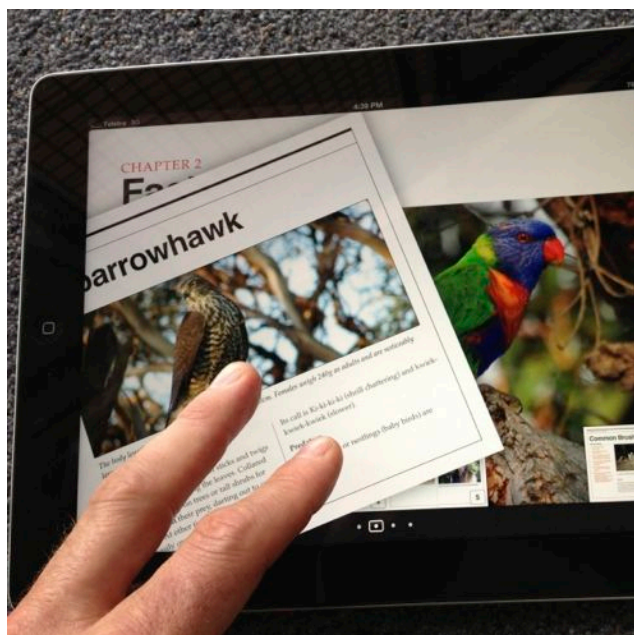
To expand the use of new digital technologies to enhance communication, professional learning and student engagement in environmental and sustainability education.

2013 Target

Increase student engagement in authentic learning through the use of mobile devices.

Strategies to achieve this target include:

- Develop or modify centre programs to increase the use of mobile devices such as iPads in fieldwork and specialist excursions and incursions.
- Collaborate with Gibberagong EEC and Taronga Zoo Education Centre to develop new programs using mobile technologies.
- Develop high quality digital resources such as multimodal texts to support centre and school programs.
- Trial new outdoor wireless network hardware installation.



Priority 3 - Professional Learning

Outcome for 2012–2014

To strengthen the capacity of teachers, schools and regional offices to lead the integration of environmental and sustainability education through blended teaching and learning programs.

2013 Target

To build teacher leadership capacity in environmental and sustainability education through the provision of quality professional learning.

Strategies to achieve this target include:

- Collaborate with a range of environmental education centres to develop professional learning for centre, school and regional staff to support differentiated learning and the integration of environmental education through the new BoS syllabuses.
- Collaborate with regional teaching and learning consultants to develop exemplary professional learning programs focusing on quality teaching, leadership and environmental and sustainability education.
- Participate in professional learning to develop pedagogical skills and curriculum knowledge.

About this report

In preparing this report, the self-evaluation committee has gathered information from evaluations conducted during the year and analysed other information about the school's practices and student learning outcomes. The self-evaluation committee and school planning committee have determined targets for the school's future development.

Steven Papp – Principal

Pat Spiers – Teacher

Gaye Braiding – Teacher

Christina McGee – Teacher

Cate Fredrickson – Teacher

Julie Overton – Teacher

Jodie Murphy – Teacher

Jacqueline Cleary - Teacher

Helen Curry - Teacher

Julie Ann Sheridan - Teacher

Lyn Crossley – Administrative Manager

Paul Brooke – General Assistant

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Parents can find out more information about Annual School Reports, how to interpret information in the reports and have the opportunity to provide feedback about these reports at: <http://www.schools.nsw.edu.au/asr>