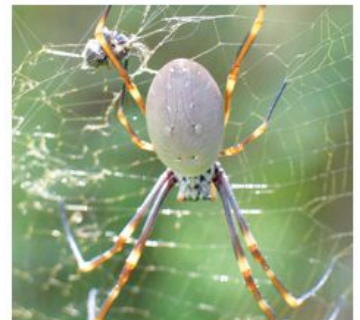


2010 Annual School Report

Field of Mars Environmental Education Centre

NSW Public Schools – Leading the way



Messages

Principal's message

2010 was DET Year of Learning for Sustainability. Accordingly the centre focused on providing professional development activities for teachers, special events and a range of new programs to support the year. In addition student visitation numbers increased significantly.

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 the 25 Environmental Education Centres and Zoo Education Centres supported by the NSW Department of Education and Training. The centre is located in a reserve of remnant urban bushland in the East Ryde area. The centre offers programs to support schools and their communities with environmental and sustainability education. Programs are conducted on site at the Field of Mars Reserve or at other sites such as local parks or in school grounds.

The centre also provides support, advice, training and resources for teachers. It is used as a workshop venue for school, network and other departmental meetings.

Visitor profile

The centre provides learning activities focused on environmental and sustainability education to students in many different formats: from day excursions to units of work; from theme programs to mandatory Stage 6 fieldwork.

Percentage of visit days per stage groupings

	2010	2009	2008
Stage ES1 - 3	84%	76%	75%
Stage 4 – 6	16%	24%	25%

Comparison of incursion and excursion visits

	2010	2009	2008
Excursion	48%	53%	65%
Incursion	52%	47%	35%

Comparison of student numbers

	2010	2009	2008
Term 1	3301	1975	1786
Term 2	3342	2434	2563
Term 3	3507	2247	3004
Term 4	4423	1577	2394
Total	14573	8233	9747

Virtual Student numbers

	2010	2009	2008
K-12	735	NA	NA

Data over the past three years shows:

- 1) A 77% increase in student numbers in 2010. The centre's capacity to meet demand for student visits has increased with cost recovery.
- 2) Despite the increase in visitation, requests for visits that could not be accommodated have remained consistent. In 2010, 48 such requests involved an estimated 4932 students.

Other groups using the centre:

- 3) DET consultants, local government and community groups used the centre for meetings and workshops.
- 4) Schools used the centre as a venue for student leadership and peer support workshops.

Staff information

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



Staff establishment

The Principal and teacher are supported by the valuable input of a variety of specialist casual teachers, one school administrative manager and a part-time 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 retention

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

Staff attendance

Staff have access to leave entitlements such as sick leave. In 2010 the average daily attendance rate for staff, as determined by the Department, was 99%.

Teacher qualifications

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

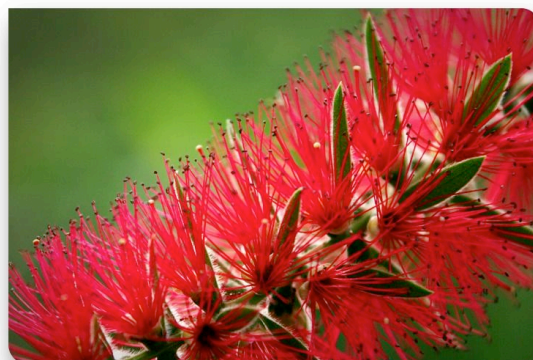
Qualifications	% of staff
Degree or Diploma	100
Postgraduate	100

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:	30/11/10
Income	\$
Balance brought forward	39 029.83
Global funds	32 918.41
Tied funds	51 094.98
School & community sources	91 786.18
Interest	2 292.80
Trust receipts	0.00
Canteen	0.00
Total income	217 122.20
Expenditure	
Teaching & learning	
Key learning areas	66 671.87
Excursions	0.00
Extracurricular dissections	25 913.18
Library	1 361.45
Training & development	3 833.79
Tied funds	31 081.79
Casual relief teachers	0.00
Administration & office	32 657.40
School-operated canteen	0.00
Utilities	4 289.34
Maintenance	2 723.01
Trust accounts	0.00
Capital programs	0.00
Total expenditure	168 531.83
Balance carried forward	48 590.37

A full copy of the school's 2010 financial statement can be obtained by contacting the school.



School performance 2010

Significant programs and initiatives

The centre collaborated with the Macquarie ICT Innovations Centre (Mac ICT) to successfully implement the Learning for Sustainability Video Conference Festival.

Field of Mars EEC coordinated the Climate Clever Energy Savers Program. Through this program, eight primary schools and four high schools have collaborated to develop energy efficiency programs.

A new Early Stage 1 incursion was developed and trialled: Bush Christmas combines story, song and craft to introduce students to Australian animals and their habitats. This program was fully subscribed within three days of advertising. Fourteen schools and 1632 students participated in 2010.

The centre designed and delivered a variety of Stage 1, 2 and 3 enrichment day activities that extended students through problematic ecological investigations and the use of digital technologies.



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

Aboriginal education

Aspects of Aboriginal culture are integrated into most 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 students from various cultural and religious backgrounds.

Respect and responsibility

Behaviours and practices which show action for the environment and respect for others are reinforced in all aspects of the centre's activities.

Other programs

Environmental Education for Sustainability

In 2010 we continued to focus on initiatives that resulted in water savings, increased energy efficiency and increased biodiversity. These initiatives were highlighted as exemplars for sustainability in schools.

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

The centre's front entrance garden continues to be developed as an example of garden design for biodiversity preservation and xeriscaping. An additional 1000 plants were placed in this area.

Progress on 2010 targets

Target 1

To strengthen the capacity of EEC staff and NSR teachers to develop environmental and sustainability education programs based on the NSW Quality Teaching Framework.

Our achievements include:

- Providing environmental and sustainability focused professional development workshops for over 374 teachers and 140 principals.
- Implementation of a suite of NSW Institute of Teachers accredited professional development courses, 'Sustainability Basics', with 72 teachers from 49 schools as well as 12 non school participants.
- Provision of support and advice to schools on education for sustainability.



Future Directions:

Increase the availability and range of quality professional development workshops and courses for teachers and staff.

Target 2

Increase the use of interactive technologies for learning, teaching and for teacher professional learning.

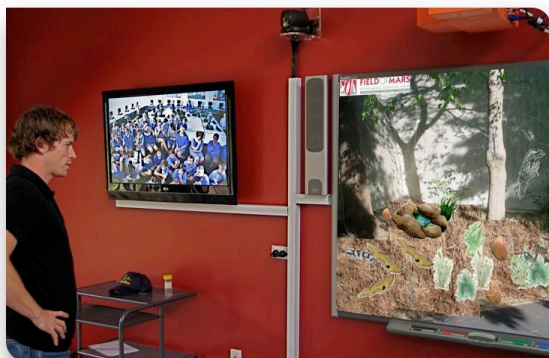
Our achievements include:

- Implementation of the Learning for Sustainability Video Conference Festival in collaboration with Macquarie ICT Innovations Centre.
- Implementation of the Green Room Teacher Professional Development Video Conference Series with participation of over 155 teachers.
- Increased use of connected classrooms technology to deliver environmental education and sustainability programs.

Future directions:

To develop connected classrooms lessons to support current and future programs.

To investigate ways of using new digital media to bolster student engagement.



Target 3

Provide Stage 6 Biology and Science students with an enriched and engaging student-centred fieldwork program.

Our achievements include:

- A review of current Stage 6 Biology and Science fieldwork programs and supporting resources.
- A survey of participating teachers experiences and needs.
- A review of excursion methodologies and worksheets.

- Development of a revised program and worksheet to be delivered in 2011.
- Positive teacher and student feedback.
- A number of early bookings for 2011.

Future directions:

Preparation for implementation of National Curriculum.

Liaison with specialist presenters for VC support.



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 2010 our school carried out evaluations of Climate Clever Energy Savers, Learning for Sustainability Video Conference Festival & Occupational Health and Safety.

Curriculum

Climate Clever Energy Savers.

Background

This professional development program focused on teachers using the Sustainability Action Process to develop a unit of work to engage students in authentic investigations of energy and energy efficiency. These units culminated in the development of student proposals to reduce energy usage. In Northern Sydney Region eight primary and four high schools totalling 22 teachers participated.

Funding was provided for a coordinator to implement the program one day a week.

Findings and conclusions

Schools were provided with access to resources such as energy meters, lux meters and the assistance of a coordinator to lead staff planning sessions, SMART Notebook sessions, auditing

lessons, video conferences and follow up 'Energy Efficient House' lessons.

The program culminated with nine student proposals being submitted and funded. \$17,000 was provided to schools to implement student energy saving proposals.

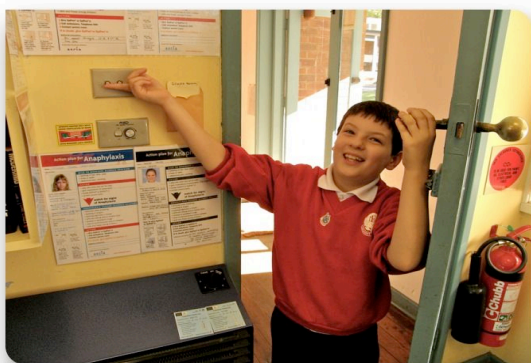
Teachers expressed satisfaction with the program however there was some concern about the time required to complete the proposals. The proposals were reflective of individual school sites and environments. The students displayed evidence of excellent auditing skills, understanding of energy saving technologies and deliberation over which proposals would best suit their schools.

Student proposals in primary schools focused on signage, light timers, energy meters and energy efficient lighting. In high schools, proposals involved more efficient lighting, skylights, sensor lighting and signage. All schools recognised the need for behavioural change.

Participating teachers created exciting and dynamic units of work using the Sustainability Action Process to guide students through 'student-directed, project-based learning'.

Future directions:

Based on feedback the program has been revised for 2011. Revision includes more access to video conferences as a means of providing support to participating schools, only accepting applications from schools with multiple teachers participating and increasing the availability of supporting resources.



Learning for Sustainability Video Conference Festival

Background

In collaboration with Mac ICT the Field of Mars EEC developed, implemented and evaluated the Learning for Sustainability Video Conference Festival. The festival's aim was to share best practice in pedagogy and school management in

the area of environmental education and sustainability. The festival included:

- Twenty six video conferences run over five days with presenters from Birds Australia, Do Something, Taronga and Western Plains Zoo, Waterwatch, Australian Museum, National Parks and Wildlife Service, Chipping Norton PS, Narrabeen Lakes PS, Narrabeen North PS, Grafton HS, Lambton HS, Callaghan College, Newcastle University and Environmental Education Centres including Royal, Wetlands, Gibberagong, Thalgarah, Brewongle, Warrumbungles, Rumbalara, Riverina, Georges River, Wambangalang, Cascade and Field of Mars.
- Professional development for presenters on planning and conducting video conferences.
- Over 240 registrations.
- A viewing audience of 433 teachers and 6375 students.

The festival occurred during Week 7, Term 2 31st May to 4th June. An online feedback survey was completed by 59 teachers. Written and verbal evaluations were collected from the presenters.

The festival was the recipient of both regional and state awards for excellence.

Findings and conclusions

General Feedback

The feedback from class teachers indicated a high level of personal satisfaction with the festival. Most agreed that the festival was well organised, relevant and timely with a diverse range of sessions available.

Teacher Satisfaction Rating

1 (Low)	2	3	4	5 (High)
1%	4%	17%	38%	40%

Student engagement with each session varied depending on the content, style and interactivity. The most highly rated sessions were interactive, succinct, stage appropriate, student focussed and student-led.

Student Engagement Rating

1 (Low)	2	3	4	5 (High)
5%	6%	27%	42%	23%

The lower ranked sessions were evaluated as lacking interactivity, too long, not stage appropriate, relied on text based presentations or were poorly planned.

Timetable

Most teachers were satisfied with the timetable for student focussed sessions and these were generally well attended. Teacher focused sessions were poorly attended and most participants felt these should occur outside of normal teaching hours to maximise participation potential. Teachers indicated the need to repeat sessions during different timeslots to increase availability.

Session Times

Including question time, the vast majority of respondents indicated that the maximum length for a video conference session should be 30 to 40 minutes or less depending on the target audience. This is reflected in comments where poorly rated sessions were often too long.

Ideal Video Conference Session Length

20min	30min	40min	50min	60min
3%	39%	37%	13%	8%

Participants also expressed the need to start on time.

Co-ordinating staff from Mac ICT and EECs expressed satisfaction with the running of the festival and made modifications as the program progressed.



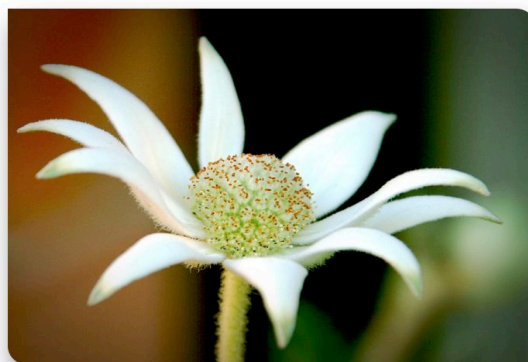
Future directions:

Overall feedback for the majority of the festival was extremely positive with most participants indicating they would like to participate in future festivals.

In future festivals we will:

- Adjust the timetable to move teacher focused sessions to before or after school timeslots
- Increase the number of student-led sessions
- Ensure sessions are stage and audience appropriate in terms of timing and content

- Ensure visuals used during presentations are engaging and stage appropriate while removing unnecessary text
- Where appropriate reduce the audience size to increase opportunities for interactivity
- Repeat sessions throughout the festival
- Investigate ways to increase questioning opportunities for participating audiences
- Collaborate with festival partners to provide video conference professional development opportunities for presenters.



Educational and management practice

Occupational Health and Safety

Background

Student and staff safety is a constant priority of the Field of Mars EEC. Accordingly in 2010 the centre conducted a review of OHS procedures to ensure safety and to comply with DET guidelines.

Findings and conclusions

Using the OHS self assessment tool and through verbal feedback the centre identified strengths and weaknesses in current OHS policies and procedures.

Generally staff expressed satisfaction with current risk identification and management with most identified hazards being rectified on a timely basis.

Staff feedback indicated the need to include OHS consultation as part of all regular staff and communication meetings to ensure regular reporting of OHS risks and to maintain a culture of safety.

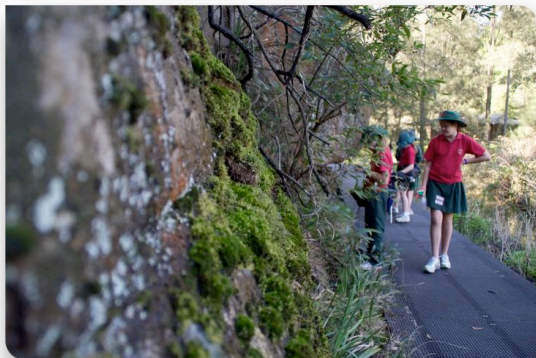
To facilitate reporting of OHS issues a wiki was created on the Field of Mars server to enable recording and tracking of identified issues.

To ensure all policies and procedures are current and reflect the needs of the centre, timetables have been established to conduct regular reviews.

Future directions:

The centre is currently revising and updating its OHS policy, risk assessments, emergency management plan and OHS management action plan.

Provision of personal protective clothing was identified as a priority for centre staff and will be provided in 2011.



Parent, students, and teacher satisfaction

In 2010 the school sought the opinions of parents, students and teachers about the centre.

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

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

Professional learning

Centre teachers attended the NSW EEC Annual Conference in Camden. This provided the opportunity to increase knowledge and skills in environmental education and education for sustainability with a focus on environmental citizenship framework K-12.

Centre staff also participated in:

- Australian Association for Environmental Education National Conference
- ACARA Annual Conference
- Taking up Biodiversity
- Primary Connections
- Senior First Aid

TPL expenditure \$2240

PL expenditure \$3830

School development 2009 – 2011

Targets for 2011

Target 1

To strengthen the capacity of EEC staff and NSR teachers to implement environmental and sustainability education programs based on the new Sustainability Education for Management Policy for Schools and NSW Quality Teaching Framework.

Strategies to achieve this target include:

- Collaborate with Gibberagong EEC to provide professional learning for centre, school and regional staff to support differentiated learning and the implementation of the new environmental education policy.
- Collaborate with DET and other organisations to support targeted environmental education programs eg Primary Connections, Carbon Kids, Climate Clever Energy Savers.
- Collaborate with Gibberagong EEC, Taronga Zoo EC and regional staff to implement student leadership programs that support environmental and sustainability education via *Enviro Forum, Enviro Expo, Leadership Camps and Harmony Day*.
- Model best practice environmental and sustainability education.
- Participate in professional learning to develop pedagogical skills and curriculum knowledge.

Our success will be measured by:

Increase in schools that are implementing environmental and sustainability education programs.

Increased participation in professional development courses and positive teacher feedback through surveys.

Self and peer evaluation of EEC staff skills and capabilities.



Target 2

Increase the use of interactive technologies for learning, teaching and for teacher professional learning.

Strategies to achieve this target include:

- Develop connected classroom lessons focusing on sustainability and environmental education for implementation across NSW.
- Collaborate with Gibberagong EEC to develop the Green Room Video Conference professional development workshops and Green Room for Kids workshops.
- Collaborate with Mac ICT and EECs to promote and expand the Learning for Sustainability Video Conference Festival.

Our success will be measured by:

Positive staff and student evaluations.

Successful implementation of connected classroom based lessons and professional learning programs.

Increased implementation of environmental and sustainability education throughout NSR.

Target 3

Implement a differentiated student-centred program and incursion on energy efficiency using the Sustainability Action Process for Stage 3 students.

Strategies to achieve this target include:

- Design and implement a Stage 3 unit focusing on energy efficiency using the Sustainability Action Process.
- Collaborate with teachers and other relevant stakeholders to develop and trial the unit of work.
- Develop supporting resources to enhance student engagement.

Our success will be measured by:

Development of a high quality energy efficiency program and resources.

Positive teacher and student feedback.

Repeat bookings in 2012.

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

Cate Fredrickson - Teacher

Lyn Crossley – Administrative Manager

Paul Brooke – General Assistant

School contact information

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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>

