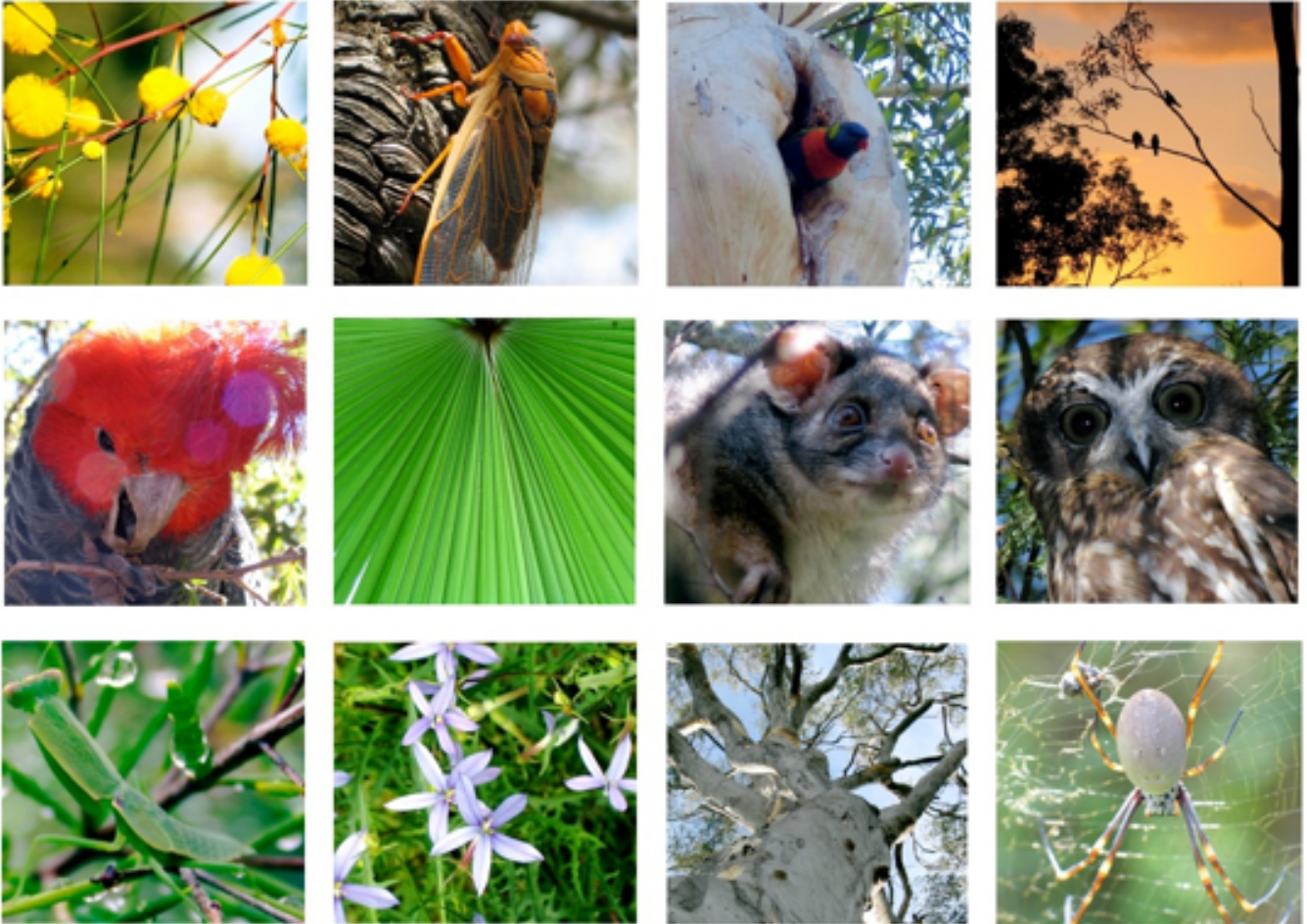
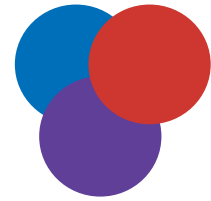


# Field of Mars EEC Annual Report



2015

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**FIELD OF MARS**  
ENVIRONMENTAL EDUCATION CENTRE  
EXPERIENCE ENGAGE ENABLE

## Introduction

The Annual Report for 2015 is provided to the community of Field of Mars Environmental Education Centre as an account of the centre's operations and achievements throughout the year.

It provides a detailed account of the progress the centre has made to provide high quality educational opportunities for all students, as set out in the school plan. It outlines the findings from self-assessment that reflect the impact of key school strategies for improved learning and the benefit to all students from the expenditure of resources, including equity funding.

Steven Papp – Principal



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## Message from the Principal

One of the key goals of the Field of Mars Environmental Education Centre (EEC) is to ensure students have high quality authentic 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 and attention span improves, signs of attention deficit disorder are reduced and as a result, students tend to do better in standardised tests. The benefits of taking students outside are therefore real and quantifiable. As an educator I believe one of the biggest benefits is that this leads to engaged, self-regulated learners.

During 2015, the centre continued its focus on the development of new and innovative sustainability education programs and resources as well as the renewal and updating of existing core programs. All our programs have a strong focus on literacy, numeracy, visual arts and science and technology and many are regarded as exemplars of the high-quality learning that can be accomplished using mobile technologies. The teaching and learning in our programs has 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.

Steven Papp

## School background

### Vision statement

#### Centre Vision Statement

Education for a sustainable future.

#### Environmental and Zoo Education Centres (EZEC) Vision

Supporting NSW schools to implement sustainability education through meaningful learning experiences in and about the natural, built and cultural environment. We strive to be the leaders in providing students with the skills, values and opportunities to act as responsible citizens

### 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 and equip students to design solutions to real world sustainability problems.

Field of Mars EEC 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 provides support, advice and resources for teachers. It is also used as a workshop venue for schools and other professional learning meetings.

The Centre has multi-sectoral partnerships to enhance its capacity to create sustainable futures within our school communities.

## **Self-assessment and school achievements**

### **Self-assessment using the School Excellence Framework**

This section of the Annual Report outlines the findings from self-assessment using the School Excellence Framework, our school achievements and the next steps to be pursued. The Framework supports public schools throughout NSW in the pursuit of excellence by providing a clear description of high quality practice across the three domains of Learning, Teaching and Leading.

This year, our school undertook self-assessment using the elements of the School Excellence Framework.

#### **Learning**

In the domain of Learning, our centre has primarily focused on the domain of Curriculum and Learning. Commencing in Term 1, we began the review of programs to align with new BOSTES syllabus. Staff were involved in professional learning to support the transition towards new syllabus.

#### **Teaching**

In the domain of Teaching, our focus has been on learning and development. Professional learning has been conducted in house and externally to ensure the best possible outcomes for students. Staff are continuing to align teaching and learning with New South Wales Syllabus for the Australian Curriculum as they are implemented.

#### **Leading**

In the domain of Leading, our school has focused the domain of leadership and school resources. We have focused on establishing meaningful partnerships to deliver student programs and professional learning.

Our self-assessment process will further assist the school to refine the strategic priorities in our school plan leading to further improvements in the delivery of education to our students.

## Strategic Direction 1

Improving learning outcomes for all students

### Purpose

At Field of Mars EEC we believe that for students to develop their potential as lifelong learners, leaders and sustainable global citizens they need to become confident, creative and critical problem solvers.

We believe this has flow-on benefits for social, environmental and economic sustainability at family, community, national and global levels.

### Overall summary of progress

In 2015 the centre began the process of reviewing programs to ensure they remain contemporary and aligned with BOSTES syllabus.

New, and updated programs include:

- Stage 1 - *Movie Bugs*
- Stage 2 - *Night Raiders, Plants in Action*
- Stage 3 - *Kids vs Wild, Mixed Media Minibeasts, Electric Invertebrates*
- Development of digital resources on iTunes U - Wildlife Conservation
- Successful development and implementation of student leadership programs.
- Provision of support and advice to schools on education for sustainability.

Progress towards achieving improvement measures		Resources (annual)
<b>Improvement measure</b> (to be achieved over 3 years)	<b>Progress achieved this year</b>	<b>\$30 500</b>
Critical review and update of all existing centre programs in line with client school needs and 21st century opportunities.	Centre teaching and learning programs are in the process of evaluation, improvement and alignment with the new NSW curriculum.	\$10 000
Development of pre, post and parallel activities/resources to augment client school classroom teaching	The centre launched a range of digital multimodal books for iPad, iPhone and Macs. Titles included Habitat, Traditional Wiradjuri Culture, Invertebrate Explorer, Trash Talk and Learning Outside with iPad. These books are designed to support classroom teachers and the requirements of the NSW Board of Studies Teaching and Learning Standards (BOSTES) Syllabuses for the Australian Curriculum.  These titles have collectively been downloaded over 8000 times and are frequently featured in the top 10 of the education section of the iBooks Store	\$20 500

## Next steps

### BOSTES Syllabus

During 2016 the centre will focus on developing learning experiences and teaching and learning programs for NSW BOSTES Syllabus with a specific focus on the new Geography syllabus.

### Multi-touch Books

The centre is currently developing Black Anzacs, The Needs of Living Things - Animals, Silk Moths and a new Natural Environments series for release in 2016.

## Strategic Direction 2

Enhancing professional leadership, teaching and learning practices.

### Purpose

At Field of Mars EEC we believe teaching and leadership quality is the strongest school-related factor that can improve student learning and achievement.

Through the provision of quality teacher professional learning for all EEC staff, classroom teachers and DEC leaders we have the ability to transform teaching and learning in outdoor and classroom contexts.

We aim to lead the delivery and development of authentic learning pedagogies to support 21st century students, classrooms and practices.

### Overall summary of progress

In 2015 the centre conducted professional learning statewide. This included working in consultation with EECs around the state to deliver Plugging into Nature – Learning Outside the Classroom with iPad.

Centre staff participated in extensive professional learning focusing on technology integration, syllabus implementation and environmental and sustainability education.

The introduction of Professional Development Plans and lesson observations for both permanent and casual staff has improved professional dialogue and directed the school professional learning plan.

Progress towards achieving improvement measures		Resources (annual)
<b>Improvement measure</b> (to be achieved over 3 years)	<b>Progress achieved this year</b>	<b>\$34 425</b>
Centre PL courses meet the current needs of teachers and inform their future professional learning plans.	<p>Plugging into Nature</p> <p>The centre implemented the Plugging into Nature: Learning Outside with iPads teacher professional learning course. Plugging into Nature explores the use of iPads to support authentic learning outside the four walls of the classroom.</p> <p>The course outlines a range of practical ideas and enables teachers to explore the pedagogy behind the use of mobile technology both inside and outside the classroom. The course focusses on ways technology can be used to support cross curriculum priorities and integrated into the syllabus.</p> <p>The course was offered at a variety of sites in collaboration with a range of Environmental Education Centres throughout 2015. These centres included Wambangalang, Thalgarah, Cascade, Wooglemaj, Bournda, Gibberagong, Illawarra, Dorrroughby and Botany Bay.</p> <p>331 teachers participated in the course during 2015. Participants are required to produce a digital multimodal text that outlines how they have used</p>	\$14 350

	iPads outdoors to support authentic learning. The chapters were edited and combined into the Multi-Touch Book Learning Outside with iPad. The first volume of this was published in 2015.	
Centre and client school staff achieving and/or maintaining accreditation at proficient, highly accomplished or lead teacher levels.	EEC staff participated in a range of professional learning events as outlined in Professional Learning and Teacher Accreditation section.  Three temporary staff were successful in obtaining proficient teacher accreditation.	\$20 075

## Next steps

### Professional Learning

Develop additional professional learning courses for teachers. These include Plugging into Nature 2, Natural Books and a series of Adobe Connect sessions that unpack environmental education activities and the use of technology.



## Strategic Direction 3

Building stronger partnerships to achieve systems improvement

### Purpose

At Field of Mars EEC we believe that we can build stronger partnerships as an educational community by leading and inspiring a culture of collaboration, engaged communication, empowered leadership and organisational practice.

We aim to create, enhance and grow a school culture which is dynamic, equitable and sustainable where all students, staff and partners are provided with opportunities to connect, succeed and thrive.

### Overall summary of progress

Throughout 2015, Field of Mars EEC continued to raise its profile and engagement with a number of partners through participation in networks, special events and programs.

During 2015 the Field of Mars EEC hosted and organised the Annual Environmental and Zoo Education Centre Conference.

The centre implemented The Microbat Project. This project is based on authentic learning principles and involved numerous partners.

Progress towards achieving improvement measures		Resources (annual)
<b>Improvement measure</b> (to be achieved over 3 years)	<b>Progress achieved this year</b>	<b>\$17 030</b>
Increase in effective centre collaboration with EZEC network portfolio groups.	Annual NSW Environmental Education Centre Conference.  In 2015 Field of Mars EEC coordinated the development of the Annual Environmental and Zoo Education Conference held at Dunmore Lang College Macquarie University.  This conference was attended by 100 educators from NSW DOE Environmental Education Centres and other representative organisations. The conference focused on a range of outdoor pedagogies and support for new BOSTES syllabus.	\$11 000
Development of new partnership programs and initiatives within DEC.	<b>The Microbat Project</b>  A Partnership program with The Lane Cove/ Hunters Hill Green Schools network, Field of Mars Environmental Education Centre and the Coal Loader for Sustainability, North Sydney.  The Microbat Project encourages students to become active citizens, to become part of the solution to help in the recovery of locally threatened microbat species.  The aim of the project is to educate students in the biology, ecology and conservation of microbats. They will have the opportunity to observe microbat species up close and will explore the role of	\$6030

	<p>science in understanding these amazing creatures. They will discover local microbat habitats and be introduced to leaders in the field of microbat research and conservation. Armed with new ideas, communication skills and newly acquired knowledge, students will be challenged, with the help of senior mentors to develop action plans to increase community awareness that necessitates behavioural change required for the recovery of these locally threatened species.</p>	
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**Student leadership**

The centre collaborated with Gibberagong, Botany Bay, Observatory Hill, and Wooglemai EECs along with Taronga Zoo to design and implement successful student leadership events.

## Next steps

### Authentic Learning Projects

The centre will collaborate with the Department of Primary Industries to develop and expand the Microbat Project to become a multiyear, funded authentic learning project.

### Partnerships

The centre will collaborate with EECs to develop teaching and learning sequences that support the new Geography syllabus.

## Key initiatives and other school focus areas

Key initiatives (annual)	Impact achieved this year	Resources (annual)
<b>Aboriginal background funding</b>	No funding received.	<\$>
<b>English language proficiency funding</b>	No funding received.	<\$>
<b>Targeted students support for refugees and new arrivals</b>	No funding received.	<\$>
<b>Socio-economic funding</b>	No funding received.	<\$>
<b>Low level adjustment for disability funding</b>	No funding received.	<\$>
<b>Support for beginning teachers</b>	No funding received.	<\$>

## Visitor profile

The centre provides professional learning for teachers and learning activities for students in many different modes including excursions, incursions, units of work, video conferences, themed programs and online coursework.

Total incursion and excursion student numbers:

	2015	2014	2013
Term 1	3122	3138	3333
Term 2	4166	3734	3629
Term 3	4265	4677	4265
Term 4	4460	5412	3320
Total	16013	16961	14547

Percentage of students per stage groupings:

	2015	2014	2013
Stage ES1 - 3	84.4%	93%	87%
Stage 4 - 6	15.6%	7%	13%

Teacher Professional Learning numbers:

	2015	2014	2013
K-12	1634	666	490

In 2015 the centre had a significant increase in teachers participating in professional learning run by the centre. This included professional learning sessions organised by the centre or centre staff presenting at staff meetings and conferences.

## Workforce composition

Position	Number
Principal	1
Classroom Teacher(s)	1
School Administrative & Support Staff	1
Temporary and Casual Teaching Staff	8
Total	11

The Australian Education Regulation, 2014 requires schools to report on Aboriginal composition of their workforce.

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
Undergraduate degree or diploma	100
Postgraduate degree	50

## Professional learning and teacher accreditation

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

In 2015 there was significant expenditure on professional learning to ensure all staff were capable of supporting the development and delivery of high quality centre programs.

Professional Learning Expenditure - \$ 20075.02

Average expenditure per person - \$ 1825

Professional learning provided the opportunity for staff to develop knowledge and skills in environmental and sustainability education with a focus on integrating these skills across all Key Learning Areas. Professional learning included attendance at:

- Apple Distinguished Educator Institute Singapore
- NSW EEC Annual Conference in Ryde
- iBooks Author Workshop
- Slide 2 Learn Tasmania
- NSW AAEE Conference Kurri Kurri
- NSW Geography Teachers Association Conference
- NSW EEC Principals' Conference
- NSR Leadership Forums
- ITEC Digital Outreach Conference
- Hornsby Principal Network Meetings
- SASS Conference
- SASS GA Conference
- Apply First Aid
- Virtual Excursions Australia Conference

- iTunes U workshop and Conference
- Navigating the new NSW BOSTES Syllabus
- iPad National Conference
- iOn the Future Conference
- Milestone Workshop
- Ready Steady Grow Workshop

## Financial summary

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

A full copy of the school's 2015 financial statement is tabled at the annual general meetings of the parent and/or community groups. Further details concerning the statement can be obtained by contacting the school.

Date of financial summary	30/11/2015
<b>Income</b>	\$
Balance brought forward	87274.21
Global funds	37809.19
Tied funds	6988.84
School & community sources	326487.11
Interest	1596.29
Trust receipts	0.00
Canteen	0.00
<b>Total income</b>	<b>372881.43</b>
<b>Expenditure</b>	
Teaching & learning	
Key learning areas	237434.60
Excursions	0.00
Extracurricular dissections	39990.49
Library	0.00
Training & development	20075.02
Tied funds	35779.41
Casual relief teachers	0.00
Administration & office	49046.54
School-operated canteen	0.00
Utilities	4942.01
Maintenance	450.00
Trust accounts	0.00
Capital programs	0.00
<b>Total expenditure</b>	<b>387877.160</b>
<b>Balance carried forward</b>	<b>72278.48</b>

## Parent/caregiver, student, teacher satisfaction

In 2015 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.

## Policy Requirements

### 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 and Anti-racism

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.

### Environmental Education and Sustainability

All centre programs have an Environmental Education for Sustainability perspective. We endeavour to model sustainability at the centre. Teacher professional learning is offered to schools on embedding sustainability into the curriculum.

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