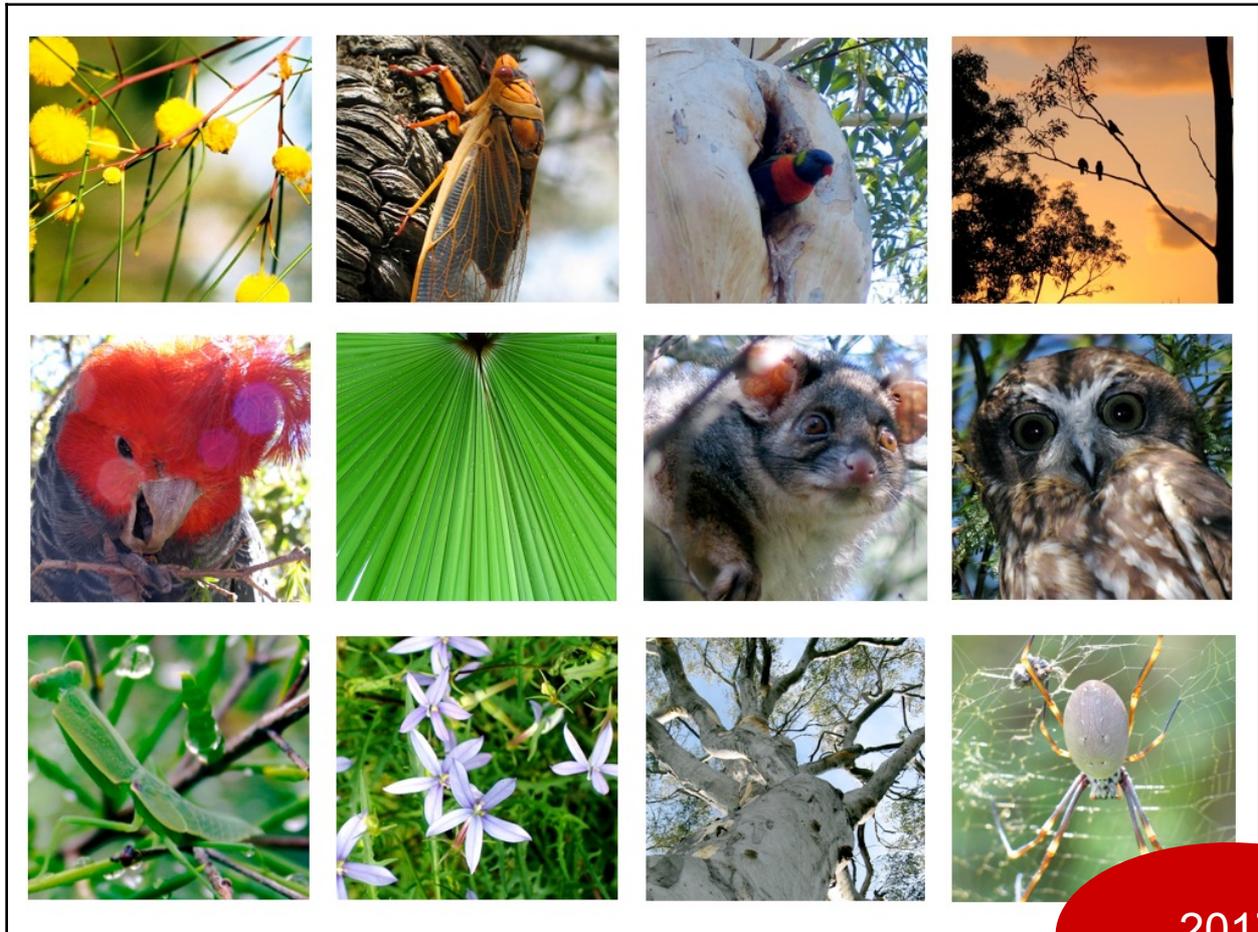


# Field of Mars Environmental Education Centre Annual Report



2017

## Introduction

The Annual Report for 2017 is provided to the community of Field of Mars Environmental Education Centre as an account of the school's operations and achievements throughout the year.

It provides a detailed account of the progress the school 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

### School contact details

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### Message from the Principal

I would like to acknowledge the Wallumedegal people of the Dharug nation who are the traditional custodians of the land on which the Field of Mars Environmental Education Centre is situated.

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 also calmer, better at critical thinking, with improved behaviour and attention spans, reduced signs of attention deficit disorder and as a result, students tend to do better in standardised tests. The benefits of taking students outside are therefore real and quantifiable.

During 2017, 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. Our programs have a strong focus on literacy, numeracy, visual arts, geography, 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.

During 2017 we reached a significant milestone with close to 20000 students participating in our programs. This has been achieved through the provision of high quality contemporary teaching and learning programs that are continuously refined and updated to meet the needs of teachers and schools throughout Sydney.

Steven Papp

## School background

### School vision statement

Our vision inspires the organisation we want to become in the future. This vision was created through an alliance of the NSW DoE Environmental and Zoo Education Centre network.

Our vision is to support 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 enable them to act as responsible citizens.

Our branding, “experience, engage, enable” is at the heart of our purpose. That is, to enable the immersion of all students in experiential learning in, about, and for the environment.

### School context

The Field of Mars Environmental Education Centre (EEC) is one of 25 environmental education and zoo education centres operated by the NSW Department of Education.

An “Environmental Education Centre is a teaching and learning facility operated by the Department which students attend to participate in educational programs relevant to all primary and secondary key learning areas and/or to receive specific instruction in fieldwork, and which provides support to schools in implementing environmental education.” (2.18 *NSW Teachers Award 2009*).

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 also provides support, advice and resources for teachers. It is 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.

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.

The FoM EEC teaching staff demonstrate specialist expertise in environmental and sustainability education K–12, building relationships across local schools and with visiting teachers to develop programs which address specific curriculum targets, tailored to the learning needs of all visiting students.

## Self-assessment and school achievement

### Self-assessment using the School Excellence Framework

This section of the Annual Report outlines the findings from self-assessment using the School Excellence Framework, school achievements and the next steps to be taken in line with our 3 year plan.

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

#### Learning

Field of Mars EEC's culture is strongly focused on learning, with ongoing performance improvement through evaluation data from teachers and students.

In 2017 our centre has primarily focused on the domain of Curriculum and Learning. Continuing in Term 1 2017, we reviewed programs to ensure alignment with new NESA syllabus with a particular focus on Geography 7–12. Beginning in Term 2 2017 we began developing new Stage 6 Science programs for implementation in 2018.

Staff were involved in extensive professional learning to support the transition towards these new syllabuses.

## **Teaching**

At Field of Mars EEC all teachers are committed to identifying, understanding and implementing the most effective, explicit and appropriate teaching methods and are supported in maintaining and developing their practice in-line with professional standards. There are explicit systems for collaboration and feedback to sustain quality teaching practices.

In 2017 our focus has been on professional learning and development. Professional learning has been conducted in house and externally to enhance teaching and learning practices. Professional learning priorities are influenced by numerous data sources including surveys of visiting teachers. School staff are continuing to align teaching and learning with NESA Syllabuses as they are progressively introduced while seeking out opportunities for unique contextual programs that integrate targeted improvement areas including literacy, numeracy, STEM and Positive Behaviour for Learning.

## **Leading**

At Field of Mars EEC the Principal models instructional leadership, and the staff act as a professional learning community focused on continuous improvement.

In 2017 our school has focused primarily on leadership and school resources. We have focused on establishing meaningful partnerships to enable high quality student programs and professional learning.

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

For more information about the School Excellence

Framework:<https://education.nsw.gov.au/teaching-and-learning/school-excellence-and-accountability/sef-evidence-guide>

## 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 2017 the centre developed new programs and reviewed existing programs to ensure our learning catalogue is contemporary, aligned with new syllabuses and the needs of visiting schools.

### Progress towards achieving improvement measures

Improvement measures (to be achieved over 3 years)	Funds Expended (Resources)	Progress achieved this year
Development of new Geography programs for Stages ES1, 2, 3, 4, 5 and 6.	16 days casual relief – \$8000	<p>The K–6 Geography programs that were first developed and trialled in 2016 were evaluated, reviewed and updated.</p> <p>Stage 5 Geography program <i>Environmental Change and Management</i> was developed and trialled. Initial development of Stage 4 Geography program <i>Landscapes and Landforms</i>.</p> <p>Teacher evaluation of our new Geography programs has been consistently positive.</p>
Development of pre, post and parallel activities and resources to support classroom teachers.	20 days casual relief – \$10000	<p>The centre expanded it's catalogue of digital multimodal books for iPad, iPhone and Macs. New titles included Fieldwork K–6 and Wetlands.</p> <p>Collectively the Field of Mars EEC Multi–Touch books have been downloaded over <b>40000</b> times and are frequently featured in the top 10 of the education section of the iBooks Store.</p> <p>The centre began construction of teaching and learning resources in collaboration with Mobile Muster. These resources support the interconnections content area for the Stage 4 Geography Syllabus.</p> <p>The centre updated it's visit planning documentation. The new, streamlined documents have been migrated to a digital platform. This ensures teachers have instant access to the most up–to date versions of our resources.</p>

### Next Steps

During 2018 the centre will focus on developing learning experiences and teaching and learning programs for NSW NESA Syllabus with a specific focus on the new Science Syllabus K–10, and a continuing focus on the new Stage 6 Science Syllabuses and the Geography Syllabus K–10.

Pre and post visit resources and activities will be added to program visit plans.

## 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 DoE 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

Centre staff participated in extensive professional learning across many domains focusing on syllabus implementation, pedagogy, technology integration, data and evaluation skills, educational leadership as well as environmental and sustainability education.

Centre staff developed, trialled and delivered numerous teacher professional learning programs and workshops.

### Progress towards achieving improvement measures

Improvement measures (to be achieved over 3 years)	Funds Expended (Resources)	Progress achieved this year
Development of teacher professional learning courses for Geography.	10 days casual relief – \$5000	The centre developed and implemented the accredited professional learning program Geography Outside: Fieldwork for Geographical Inquiry (10 NESAs hours) and Geography Fieldwork K–6: Learning Beyond the Classroom (2 NESAs hours). These workshops were delivered to 134 teachers.
Development of professional learning courses to support learning outside the classroom.		Geography outside: 94 teachers Fieldwork K–6: 40 teachers Plugging into Nature – Learning outside the Classroom with iPads: 58 teachers
Centre staff achieving/or maintaining accreditation at proficient, highly accomplished or lead teacher levels.	\$21050 – Funded with a blend of school and community sources and DoE funds.	EEC staff participated in a range of professional learning events as outlined in Professional Learning and Teacher Accreditation section.  Staff regularly reviewed and updated their professional development plans in line with the School excellence framework, centre directions and personal professional goals.

### Next Steps

Develop new professional learning programs as part of the Learning Beyond the Classroom series including: Digital Books, Animation Outside, Natural STEM and Film Making.

Implement a whole school approach to professional learning that focusses on the development of skills in research, data, curriculum implementation, personal and professional capability and future focused pedagogies.

## Strategic Direction 3

Partnerships to enable sustainability education

### 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 2017, Field of Mars EEC continued to raise its profile and engagement with a number of partners through participation in networks, special events, working groups, university collaboration, teacher networks, international study tour events, workshops, conferences and programs.

### Progress towards achieving improvement measures

Improvement measures (to be achieved over 3 years)	Funds Expended (Resources)	Progress achieved this year
Increase in effective centre collaboration with EZEC network. Development of new partnership programs and initiatives within DoE	10 days casual relief – \$5000	<p>Contributed to the development and delivery of the Annual EZEEC NSW Conference.</p> <p>Collaborating with 6 EECs along with two Zoos to design and deliver successful student leadership events.</p> <p>Additional collaboration with:</p> <ul style="list-style-type: none"> <li>• Northern beaches learning alliance</li> <li>• HSIE consultants</li> <li>• EZEC communication team meetings</li> <li>• Secondary science consultants</li> <li>• GOMAD – student leadership</li> <li>• DoE Centre for Education Statistics and Evaluation</li> <li>• Karonga SSP – special needs student strategies</li> <li>• Kirrawee HS – flipped learning</li> <li>• Gymea bay PS – Multi touch books workshops</li> <li>• Multiple DoE high schools developing Stage 6 Science assessment tasks</li> </ul>
Development of new partnership programs and initiatives beyond DoE.	<p>\$1500 – Funded with a blend of school and community sourced and DoE funds.</p> <p>Many of these partnerships developed by centre staff outside of regular school hours.</p>	<p>Mobile Muster – Creation of major teaching and learning resource</p> <p>Field of Mars reserve management steering committee input</p> <p>Ryde council – Bushcare</p> <p>Ryde Environmental Education network</p> <p>Earthwatch</p> <p>Australian Association of Environmental Education NSW state conference organisation</p> <p>Mind structures – Nature pedagogy workshops</p> <p>Applied Ecology Pty Ltd – consultation and resourcing for Stage 6 Science</p>

## Progress towards achieving improvement measures

Improvement measures (to be achieved over 3 years)	Funds Expended (Resources)	Progress achieved this year
Development of new partnership programs and initiatives beyond DoE.		Office of Environment and heritage – development of a unit of work  Riverkeeper program  Parramatta council  National parks association  Lane Cove council: "every child a bush experience" program  Northern Sydney Environmental Education network  Macquarie university – Aboriginal knowledge keeper – Shannon foster  Apple educational development team  Apple distinguished educator network  Geography teachers association  Science Teachers association of NSW  Coastwatchers – Marine plastics survey  Partnerships with several universities in Korea, China and Singapore

## Next Steps

The centre will collaborate with EECs to develop teaching and learning sequences that support the new Science syllabuses and revise programming for other syllabuses.

The centre will collaborate with Local government, government accredited bodies, tertiary education providers, community groups and targeted sections of the local community.

## Student information

Field of Mars EEC does not have an enrolled student cohort. Visiting students from Kindergarten to Year 12 participate in an extensive range of programs addressing syllabus outcomes.

The centre offers and delivers a range of professional learning programs for teachers.

### 2017 student visitation numbers

A total of **19202** K–12 students visited the centre in 2017.

This compares to 15261 students in 2016 and 16013 in 2015.

### 2017 visitation overview

17678 – Primary students

1524 – Secondary students

1082 – Visiting teachers

473 – Visiting parents

287 – Teachers participated in professional learning

## Workforce information

### Workforce composition

Position	FTE*
Principal	1
Deputy Principal(s)	0
Assistant Principal(s)	0
Head Teacher(s)	0
Classroom Teacher(s)	1
Teacher of Reading Recovery	0
Learning & Support Teacher(s)	0
Teacher Librarian	0
Teacher of ESL	0
School Counsellor	0
School Administration & Support Staff	1.19
Other Positions	0

\*Full Time Equivalent

Permanent staff at the Field of Mars EEC are well supported by a number of specialist temporary and

casual teachers who contribute to the development and delivery of programs and resources. All teachers are experienced in the delivery of authentic learning in a variety of contexts.

### Teacher qualifications

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

### Teacher qualifications

Qualifications	% of staff
Undergraduate degree or diploma	50
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 through other professional learning providers.

In 2017 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 – \$21050

Professional learning provided the opportunity for staff to develop curriculum knowledge and skills and to enhance pedagogy.

Professional learning included attendance at:

- LMBR implementation
- HSIE NSW network meetings
- Ryde and North Sydney Environmental education network meetings
- Art of leadership 4 day course
- Stage 6 Science MeSH roadshow workshop and networking
- Nature pedagogy courses
- Dharawal Aboriginal knowledge workshop
- Syllabus consultation meetings
- Flora and Fauna management workshop for Stage 6 Biology
- DoE Centre for evaluation studies and excellence (CESE) workshops
- Primary principals association conferences and meetings
- Citizen Science conference
- NSW AAEE conference Sydney
- Apple Learning Academy
- Stage 6 Depth Studies collaboration team
- Anti-racism training
- Orienteering coaching
- NSWTF CPD – Implementing the new stage 6 Science syllabuses
- NSW EEC Annual Conference in Bowral
- iBooks Author Workshop

- NSW Geography Teachers Association Conference
- Apple Distinguished Educator Academy Melbourne
- NSW EEC Principals' Conference
- Hornsby Principal Network Meetings
- SASS EEC Conference Secondary Literacy
- SASS GA Conference
- First Aid and CPR workshops and courses

## Financial information (for schools using both OASIS and SAP/SALM)

### Financial information

The three financial summary tables cover 13 months (from 1 December 2016 to 31 December 2017).

The financial summary consists of school income broken down by funding source and is derived from the school Annual Financial Statement.

In 2017 Field of Mars EEC migrated to the new SAP finance system.

<b>Receipts</b>	<b>\$</b>
<b>Balance brought forward</b>	<b>74,215</b>
Global funds	28,739
Tied funds	32,124
School & community sources	108,876
Interest	445
Trust receipts	0
Canteen	0
<b>Total Receipts</b>	<b>170,184</b>
<b>Payments</b>	
Teaching & learning	
Key Learning Areas	110,400
Excursions	0
Extracurricular dissections	1,601
Library	0
Training & Development	17,077
Tied Funds Payments	10,691
Short Term Relief	0
Administration & Office	23,244
Canteen Payments	0
Utilities	2,282
Maintenance	626
Trust Payments	0
Capital Programs	0
<b>Total Payments</b>	<b>165,920</b>
<b>Balance carried forward</b>	<b>78,479</b>

Figures presented in this report may be subject to rounding so may not reconcile exactly with the bottom line totals, which are calculated without any rounding.

The information provided in the financial summary includes reporting from 1 January 2017 to 31 December 2017.

	2017 Actual (\$)
<b>Opening Balance</b>	0
<b>Revenue</b>	402,390
Appropriation	108,684
Sale of Goods and Services	5,385
Grants and Contributions	287,786
Gain and Loss	0
Other Revenue	0
Investment Income	535
<b>Expenses</b>	-315,585
Recurrent Expenses	-315,585
Employee Related	-251,345
Operating Expenses	-64,240
Capital Expenses	0
Employee Related	0
Operating Expenses	0
<b>SURPLUS / DEFICIT FOR THE YEAR</b>	86,805
<b>Balance Carried Forward</b>	86,805

The Opening balance for the 2017 school financial year is displayed in the OASIS table as Balance brought forward. The financial summary table for the year ended 31 December 2017 shows the Opening balance as \$0.00 because the Opening balance for the 2017 school financial year is reported in the OASIS table (as Balance brought forward).

The amount displayed in the Appropriation category of the financial summary table is drawn from the Balance carried forward shown in the OASIS table and includes any financial transactions in SAP the school has undertaken since migration from OASIS to SAP/SALM. For this reason the amount shown for Appropriation will not equal the OASIS Balance carried forward amount.

### Financial summary equity funding

The equity funding data is the main component of the 'Appropriation' section of the financial summary above.

	2017 Actual (\$)
<b>Base Total</b>	380,782
Base Per Capita	9,170
Base Location	0
Other Base	371,613
<b>Equity Total</b>	0
Equity Aboriginal	0
Equity Socio economic	0
Equity Language	0
Equity Disability	0
<b>Targeted Total</b>	0
<b>Other Total</b>	0
<b>Grand Total</b>	380,782

Figures presented in this report may be subject to rounding so may not reconcile exactly with the bottom line totals, which are calculated without any rounding.

A full copy of the school's 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.

## Parent/caregiver, student, teacher satisfaction

In 2017 the centre sought opinions of parents, students and teachers about our programs.

A consultation survey was distributed to all teachers attending excursions. This survey was forward-looking and designed to gather information inform the development the 2018 – 2020 School Plan.

Centre staff were also surveyed for input into the strategic directions of the 2018 – 20 school plan.

Formal survey data, discussion and unsolicited feedback indicates a high level of satisfaction with the centre's programs and our interactions with staff and students. Comments typically described our teaching and learning experiences as engaging, informative and relevant.

Formal feedback from our professional learning workshops was positive, with most respondents reporting significantly greater confidence in their classroom practice, technology and programming skills.

## Policy requirements

### Aboriginal education

Aspects of Aboriginal culture and knowledge are

integrated into many Centre programs. This includes program elements that educate students about the traditional Aboriginal inhabitants of the area, their relationship with the land, their use of natural bush resources, specialist knowledge and technologies.

As part of the 2018–20 School Plan the centre will expand the variety of programs that integrate Aboriginal perspectives.

### **Multicultural and anti-racism education**

The centre abides by the Department's Multicultural and Anti-Racism policies and is committed to the elimination of all forms of racial discrimination. The Centre regularly works with students from diverse ethnic and socio economic areas and has a trained AntiRacism Contact Officer (ARCO).