

STEAM 4 Sustainability

An incursion program to support Stage 3 STEM

OBSERVATORY HILL
ENVIRONMENTAL EDUCATION CENTRE



*STEM 4 Sustainability is a half day STEM incursion using environmental and outdoor themes to enrich and strengthen **Science, Technology, English and Mathematics** learning outcomes through an authentic task.*

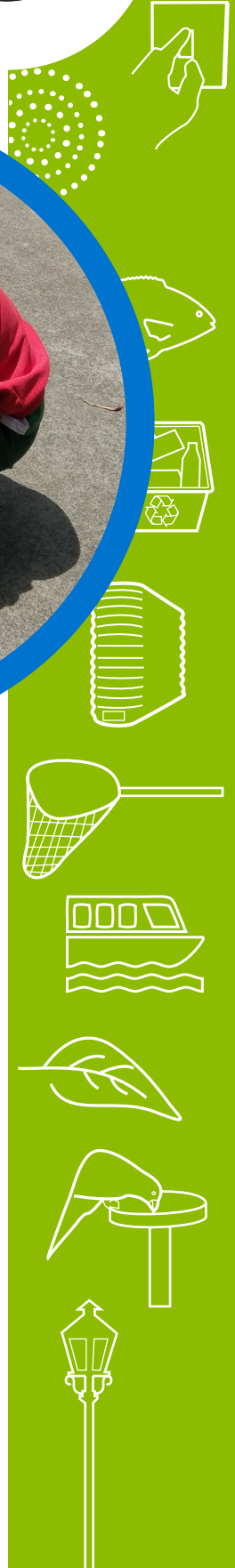
Students will measure and learn about aspects of school resource use in order to extend their understanding of the **measurement and geometry** outcome of the mathematics syllabus and the **Sustainability** cross curriculum priority. They will also be involved in **Working Mathematically** by conducting a school audit of resource use to develop understanding and fluency in mathematics through inquiry, exploring and connecting mathematical concepts, choosing and applying problem-solving skills and mathematical techniques, communication and reasoning.

Key syllabus outcomes covered include:

- Communicating - MA3-1WM describes and represents mathematical situations in a variety of ways using mathematical terminology and some conventions;
- Problem Solving - MA2-2WM selects and uses appropriate mental or written strategies, or technology, to solve problems;
- Reasoning - MA5.3-3WM uses deductive reasoning in presenting arguments and formal proofs

During the incursion, students will:

- Learn about the importance of sustainability and the wise use of school resources;
- Undertake a school sustainability audit in either waste, water, or energy, to calculate the level of resource use efficiency and present this information graphically;
- Develop an action plan to improve school sustainability and communicate this strategy to the school.



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Key syllabus outcomes supported include:

- Working Mathematically
- Working Scientifically Skills, including questioning and predicting, planning and conducting investigations, processing and analysing data, and communicating.
- English - Resonding & Composing, and Expressing Themselves.

And the **Cross Curriculum Priorities** and **General Capabilities** of: Sustainability, Literacy, Numeracy, Critical and Creative Thinking & Information and communication technology.

Our vision is to promote sustainability education, provide diverse learning experiences in an urban context and inspire schools and their communities to act responsibly towards their environment.

Our Centre:

- is staffed by experienced and qualified DoE Teachers;
- provides curriculum linked programs that strengthen classroom learning;
- provides cost effective programs;
- provides *Risk Assessment* advice for all programs

Cost: From \$10 per student

Enquiries: Phone: Observatory Hill EEC on 9247 7321

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For more information about this program and other environmental education programs, visit the Observatory Hill EEC website at:

<https://observatoryhilleec.schools.nsw.gov.au/primary-programs>

