



Melbourne Archdiocese  
Catholic Schools

Professional Learning



# Exploring the 'E' in STEM 2023

Applying Science & Mathematics in real world contexts

## When

Wednesday 22<sup>nd</sup> March  
(8.30am – 4.00pm)

## Where

Catholic Leadership Centre  
576 Victoria Parade  
East Melbourne

## Who should register

Middle year's classroom teachers, specialist teachers and learning leaders from Primary and Secondary Schools. No prerequisite or specialist knowledge required.

## Cost

Nil

## How to register

Register via the CEVN website  
<https://cevn.cecv.catholic.edu.au>  
in the [Online Professional Learning \(OPL\)](#) application by  
**Friday 17<sup>th</sup> March 2023.**

*"...While subject knowledge is important, employers really want people who can find and solve problems, think in three dimensions, understand systems and constantly adapt and improve processes." Bill Lucas 2017*

## Overview

Contextualising Science and Mathematics in real-world applications supports learner engagement, deep learning and the full-flourishing of learners as envisioned in Horizons of Hope and *MACS 2030: Forming Lives to Enrich the World*.

## Description:

This professional learning activity is held in conjunction with Akorn Education, providing engineering and STEM-based expertise for planning educational opportunities.

The program will provide insights into systems thinking, different types of engineering and investigate the application of scientific and mathematical concepts in the context of engineered solutions to real world problems. Through building challenge workshops we'll explore themes addressing curriculum areas:

- Simple machines
  - Force & movement – levers, pulleys, inclined planes, wheel & axle
  - Energy – kinetic, potential, mechanical
- Structural engineering
  - Forces – compression and tension, loads
  - Measurement – dimensions, analysis of strength to weight ratios.
  - Structural efficiency of 3D shapes - triangles, columns, arches
  - Materials
- Engineering Design Process
  - Design & Digital Technologies

Teachers will leave empowered to engage their students with engineering principles in the classroom.

## Register for this activity in OPL via the CEVN website

Activity Name	Exploring the 'E' in STEM
Activity Code	23SCI502A
Activity Date	Wednesday 22 <sup>nd</sup> March 2023
Closing Date	Friday 17 <sup>th</sup> March 2023
Contact	Shelley Waldon (Science & STEM Lead)
Email	<a href="mailto:swaldon@macs.vic.edu.au">swaldon@macs.vic.edu.au</a>
Phone	03 9267 0228