Sacred Heart Parish School
SANDRINGHAM

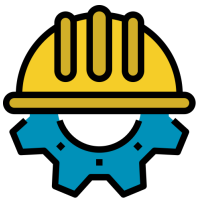
STEM & Sustainability

Term 2's deep dive into food science has set students up beautifully for Term 3 STEM. Their understanding of energy in food helps them grasp new concepts like kinetic and potential energy, and the step-by-step nature of recipes supports their learning of coding and algorithms. Even language such as 'alkaline', first explored through the pH scale, and 'electrolytes' now appear again in new contexts, such as batteries and electrical circuits.

Prep–Year 1

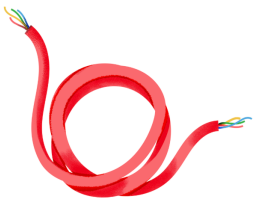
Students will begin the term exploring coding using Bee Bots, following simple algorithms and using their problem-solving skills to guide the robots through mazes. Later in the term the children will design and create toys whilst investigating kinetic and potential energy.

Year 2



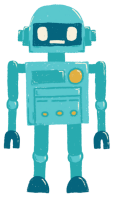
Year 2 will study coding as languages by writing their names in braille and morse code before furthering their understanding of code with Bee Bots for algorithms. The students will also partake in a toy design engineering unit focusing on levers and types of energy.

Year 3–4



Students will expand coding knowledge and skills into Scratch by animating characters and building games. They'll explore electrical circuits using Makey Makeys, combine them with Scratch, and get to test and observe different strategies to make their games more efficient. Students in Years 3 & 4 will also engineer toys using levers and pulleys as main features.

Year 5



This term Year 5 will learn about electrical circuits, using Makey Makeys to apply this learning and test different materials as conductors. The students will also use Scratch coding software to design games. Later in the term students will investigate types of resistance including electrical, air, and water.

Year 6

After revising circuits with Makey Makeys and LEDs, students will begin their Term 3 small group project called ‘Island Life’. They will collaboratively design and build a functioning small island by engineering earthquake-proof buildings, designing a lighthouse, mapping using scale and ratios, purifying water, and creating circuits to power their island systems.