Coding @ Algester Primary School

Coding is essential to the jobs of the future. Recent newspaper articles from the UK and Australia both report that within the next 20 years over 50% of all available jobs will involve some level of Coding. Already we are seeing coding being used in many spheres of employment as people learn to program equipment that has varying levels of automation and robotic engineering. Here at Algester Primary School, we have introduced BLOCK coding to the curriculum. Students across the school learn to create their own games, explore mathematical & scientific concepts and connect with robotic devices. This form of coding is ideal for primary aged students and introduces them to the elements of coding by simply dragging and dropping the blocks. They learn about iteration, branching and user input to modify their code for various purposes. Coding teaches students to develop problem solving, creative thinking, innovation and analytical thinking. It promotes resilience and persistence as code rarely works the first time. Failure is part of the learning process and motivates one to accomplish success. Coding is also taught collaboratively at the school so children are encouraged to work together to solve problems, share their work and inspire others. These are all skills that employers want in 21st century workplaces.

Coding Clubs

Coding is taught in the curriculum across the school but there are also opportunities for those students who excel to further develop their potential at lunchtime coding clubs. We use a number of Apps to develop coding which are free for parents.

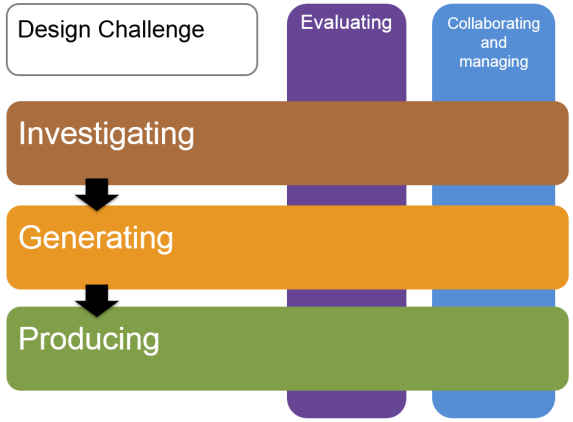
MakerSpace

Algester Primary School has a dedicated makerspace. This is a place where children can investigate the principles of STEM using both digital and practical hands on materials. Children create solutions to real world problems designing and building devices.

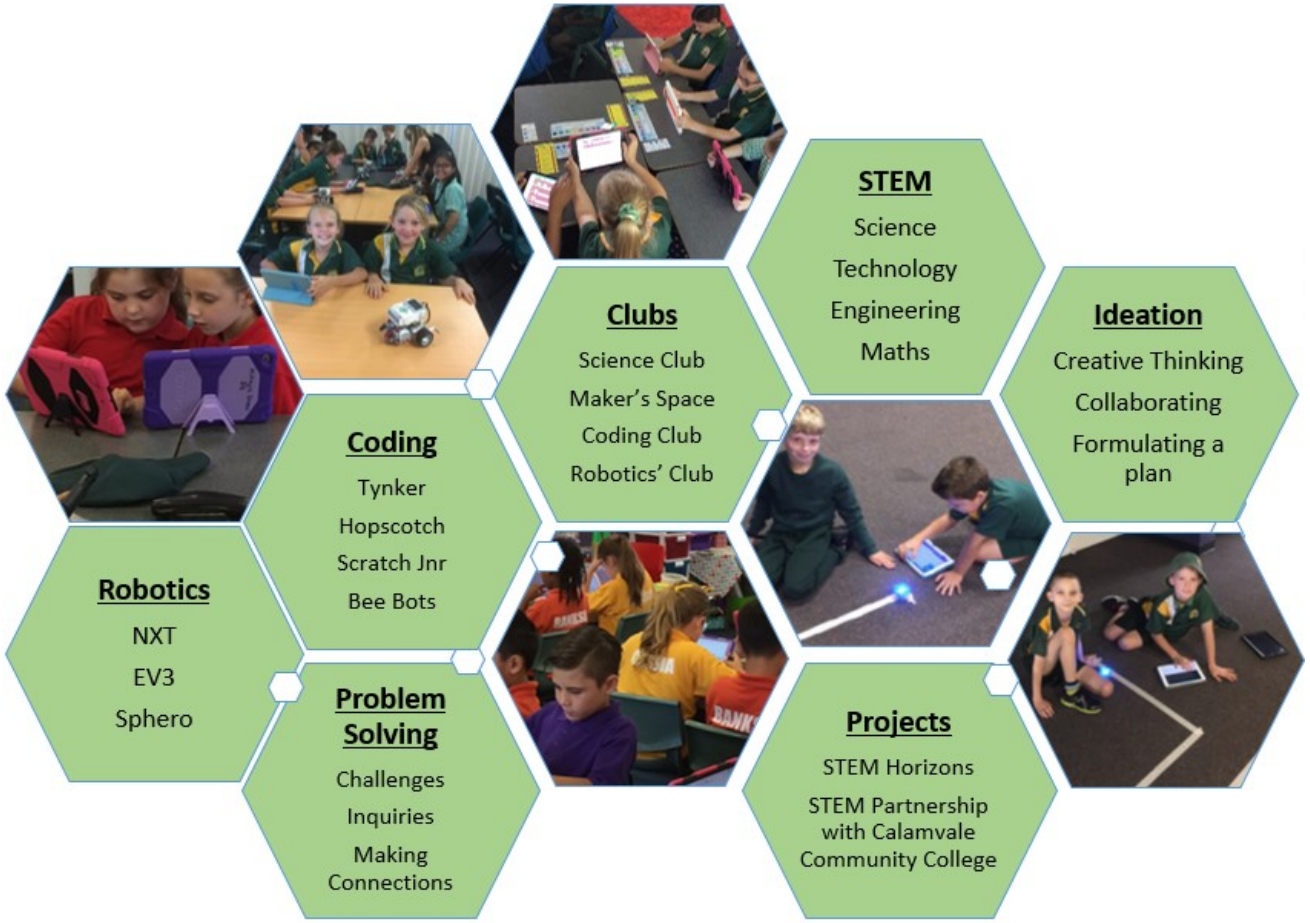
Robotics @ Algester Primary School

The teaching of robotics occurs very early at Algester Primary School. From the simple programming of Bee-BOTs in our Prep Classes to the sophisticated capabilities of our Lego MindSTORM robots, we cater for all ages. We use Lego We-DO Robots in our Year 2 classes and move to the versatile Lego EV3 robots in Year 4. Our robotics club also uses the Lego NXT robots. Students build the robots using the familiar Lego systems and learn to communicate with them using block code. Students experiment with all the elements of coding to both move their robots and test the conditions of the real world using specially designed sensors. The school also uses Spheroes, a ball like robot that can be programmed to move in a variety of ways, changing its colour and making sounds along its journey.

A model of the design process:



STEM is about developing the critical and creative thinking skills of students to prepare them for the future. We are proud to offer a variety of opportunities to do so at Algester Primary School.



STEM Science, Technology, Engineering, Mathematics

SCIENCE • TECHNOLOGY • ENGINEERING • MATHEMATICS

STEM

Creating Futures .... Together

Respect

ALGESTER

@ Algester Primary School

- Develops critical and creative thinking;
- Enhances problem solving strategies;
- Engages children through open ended inquiry based questions;
- Develops resilience and persistence; and
- Encourages collaborative learning.