

Engineering

Subject Leader: Mr M Darlington

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Curriculum Intent: Through a combination of traditional and technological approaches, the Engineering programme will enable students to solve problems by learning from their mistakes when creating electronic and mechanical products and systems.

	Core Knowledge	Procedural Knowledge
Autumn Term 1	Topics - Health and Safety in the workshop. - Electronic Engineering principles. - Electronic components. - Electronic symbols. - Soldering.	Students will: - Design and make a 'Funko' toy that lights up and plays tunes. - Research into what would make a marketable doll. - Learn theory about electronics principles. - Take part in practical lessons on soldering and component selection.
Autumn Term 2	Topics - Soldering. - Programming	Students will: - Take part in practical lessons on soldering and component selection. - Receive guidance on programming their doll.
Spring Term 1	Topics: - Soldering. - Programming. - Impact of technology.	Students will: - Take part in practical lessons on soldering and component selection. - Receive guidance on programming their doll. Evaluate the completed product.
	The second half of the year is a repeat of content of the first three half terms with a rotation of a different group of students.	

Homework: Homework is set on Bromcom for every six hours taught. Homework will comprise a presentation on The Positive Impact of Technology and revision for tests.

Assessment:

Formative verbal and other feedback. Exploration grade (research). Create grade (making). Evaluation grade. Principles grade through a multiple-choice test. Presentation skills and content grade.

Links to Personal Development:

Iterative design. Dexterity and soldering skills. Coding. Self-evaluation of work. Presentation skills.

How is my knowledge further developed in Year 8?

We return to electronics in Y9. Y8 still involves research, creating a device stand, evaluation and content to do with materials and their properties, risk assessment and some machining.