

# Engineering

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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.

<b>Core Knowledge</b>	<b>Procedural Knowledge</b>
<p><b>Topics:</b></p> <p>Electronic Engineering principles.</p> <p>Electronic components.</p> <p>Electronic symbols.</p> <p>Soldering.</p> <p>Programming.</p> <p>Health and Safety in the workshop.</p> <p>Impact of technology.</p>	<p><b>Students will:</b></p> <p>Design and make a bear toy that lights up and plays tunes, called an 'Ugly Doll'.</p> <p>Research into what would make a marketable doll.</p> <p>Learn theory about electronics principles.</p> <p>Take part in practical lessons on soldering and component selection.</p> <p>Receive guidance on programming their doll.</p> <p>Evaluate the completed product.</p>

**Homework:**  
 Homework is set on Satchel:One 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.