

YEAR 10 COURSE OPTIONS

Course Title	Electronics
Course Description	<p>Year 10 will focus on the controlled assessment element of the course (worth 60%).</p> <p>Students will pick a topic from a list approved by AQA. Current options available are alarm systems, money boxes, sound & music, fancy dress prop, promotional display, textiles, electronic skills game, road safety.</p> <p>Controlled assessment will consist of folder work (produced using ICT); submitted electronically and a practical outcome.</p>
Course Content	<p>Autumn Term: Investigation and Design Ideas Task Analysis, Mood board, Design Need, End User, Design Brief. Existing Products, Product Data, Inputs, Outputs, Summary, Specification. Circuit Ideas & annotations, evaluation circuit of ideas Hand drawn sketches, CAD Drawings, Casing Evaluation Final Design Breadboards & write up, PCB Layout & Write up Casing Models (paper and card)</p> <p>Spring Term: Model Write Up, Ergonomics, Materials, Casing Development Exploded drawing, Development Summary, Gantt Chart, Flow Chart Practical work, Production diary</p> <p>Summer Term: Complete practical work, Production diary Evaluation against specification, Photographs of practical work Product testing, Manufacturing evaluation, Improvements/Modifications</p>
Extra-Curricular Opportunities	GCSE support sessions Wednesday afterschool and a drop in session one day per week.
Useful Websites	
Important Information	<ul style="list-style-type: none"> • Links to programming, electronic, electrical and engineering courses post GCSE. • Links to A-level Product Design
Provision For Most Able	<p>Opportunity to study detailed circuits in depth; 555 timer, Op Amps, Counters.</p> <p>Development of detailed programming skills; use of either flow charts or basic.</p> <p>Demonstration of design and development skills when preparing for design section questions.</p>
Assessment	Controlled assessment (marked internally and externally moderated).