



ELECTRONICS GCSE

PHYSICS – ENGINEERING – TECHNOLOGY – THE FUTURE!



WHY STUDY ELECTRONICS AT IMBERHORNE?

- Electronics is a **growth sector** globally – lots of employment opportunities and opportunities for further study
- Recognised by universities as a **'Science based'** subject
- A very **successful subject** at imberhorne – students typically exceed their expected grades
- Enjoyable **mixture of theory and practical work**
- Develop strong practical, mathematical, creative and problem solving skills

COURSE CONTENT – THEORY & COURSEWORK

COMPONENT 1 – DISCOVERING ELECTRONICS (EXAM = 40%)

- Electronic systems & sub-systems
- Circuit concepts
- Resistive components in circuits
- Switching circuits
- Application of Diodes
- Combinational logic systems

COMPONENT 3 – NON EXAM ASSESSMENT COURSEWORK (20%)

- Design & make an electronic system to solve a problem of your choice!

COMPONENT 2 – APPLICATIONS OF ELECTRONICS (EXAM = 40%)

- Operational amplifiers
- Timing circuits
- Sequential systems
- Interfacing digital to analogue circuits
- Control circuits

LEARN – MODEL – TEST - IMPROVE

- All circuits are designed, modelled and constructed using:
 - CAD software – i.e. control studio, circuit wizard
 - Prototype boards – plug & play
 - Stripboard or PCB – soldering
- Typically in an electronics lesson you will learn about a new electronic component or system; build that system using one of the methods above; then test and improve it to make it work effectively...

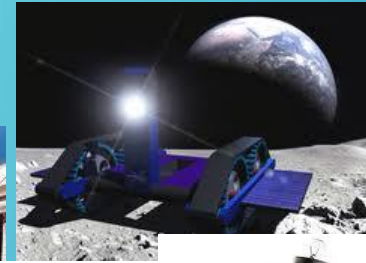
A GCSE IN ELECTRONICS CAN START YOU ON A CAREER IN:



Sound engineering



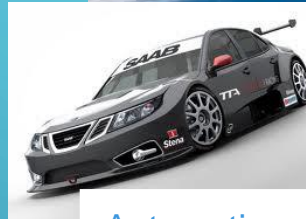
Aerospace engineering



Robotics



Product design/
engineering



Automotive engineering



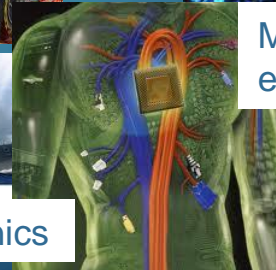
Communications



Medical electronics



Military electronics



PROGRESSION & COMPLIMENTARY SUBJECTS

- When you complete your GCSE it is possible to **continue your studies** at Imberhorne by studying **electronics A level**. The following subjects also complement electronics:
 - Science
 - Maths
 - Computer Science
 - Music
 - Media Studies