



## GCSE Design and Technology

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. All projects will reflect the modern fast moving world of technology. Pupils will be encouraged to use a wide range of design and making methods including Computer Aided design, laser cutting and 3D printing. Pupils are expected to critique, evaluate and test their ideas and products and the work of others

### Facilities:

Recent renovations mean that our pupils have access to three state of the art workshops. Whilst all workshops serve as multifunctional classrooms each has a specific focus; resistant Materials, engineering and electronics.

Pupils are given the opportunity to use a range of specialist machinery including:

- Laser cutters
- Vacuum formers
- 3D Printers

Pupils will also be given the opportunity to use a range of specialist software including:

- Photo Editing software
- CAD/CAM software

### Assessment:

#### Paper 1 – 50% of total GCSE

A theory based unit which is examined in the summer of Year 11. What is assessed:

- Core technical principles
- Specialist technical principles
- Designing and making principles

Assessment overview: 1 x written exam. 2 hours. Total marks available 100 marks

#### Non Examined Assessment (NEA) – 50% of total GCSE

A practical unit examined at the end of Year 11. Students will produce a prototype and a portfolio of approximately 20 pages, this is evidence in response to a contextual challenge which is released annually by the exam board. Skills to be identifying and investigating design possibilities

- Producing a design brief and specification
- Generating design ideas
- Developing design ideas
- Realising design ideas
- Analysing & evaluating

Assessment overview: Non-exam assessment (NEA). 30–35 hours approx . Total marks available 100.