



GCSE Resistant Materials

- CORE COMPULSORY
- NON-QUALIFICATION
- OPTION
- EBACC SUBJECT

Examination board **AQA**

Course code **4560**

Subject contact: Miss H Gladman, Head of Subject

Course description

Product designers design most things we use in our daily lives, from chairs and cutlery to clocks and computers, as well as specialist products like medical, electronics or telecommunications equipment. They aim to improve the way that existing products work and look and/or produce them at a lower cost. They may also be involved in designing entirely new and innovative products.

This course is taught in modules. During each module you will learn the knowledge and understanding of technical drawing and product modelling before embarking on a design based task.

The course includes:

- Technical drawing, producing orthographic drawings and exploded diagrams.
- Quality control, computer aided design and computer aided manufacture.
- Health and safety.
- Understanding ergonomics and anthropometrics.
- Market research and analysis to influence design inspiration.
- Metal casting, understanding the casting process and shaping metal.
- Wood working skills, building up knowledge of different joints.
- Looking at sustainability and issues surrounding sustainable design.
- Smart materials and modern technologies.
- Spiritual, moral, social, cultural and environmental considerations relating to product design.

Entry requirements

Good prior achievement in technology at KS3. Capable of working independently and being able to manage time effectively to meet deadlines.

Key skills

Independent researching, written analysis and evaluation, extended writing, organisation, designing, practical skills

Cost*

Controlled assessment practical outcome:
Students will be expected to provide their own, or contribute to the cost of materials needed.

Controlled assessment pack:
A3 portfolio, formatted sheets and materials £20
Revision guides £6.50

Assessment

- 60% Controlled assessment:
A3 portfolio of work and final product
- 40% 2 hour examination (Summer in Year 11)

Careers

Product Design, Project Manager, Engineer, Industrial Designer, Marketing, Carpenter, Plumber, Architecture, and more.

Further education opportunities

Students successfully completing GCSE Resistant Materials can then go on to study AS/A2 Graphics, Product Design, or BTEC equivalents.

Enrichment & Support

- After school coursework support (Year 11).

*Cost of materials should not limit subject choice. Please see Section 9 for further information.