

Subject: Design & Technology – Product Design

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products within a variety of contexts, considering their own and others' needs. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, computing and art. 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.

Design and technology at key stage 3 is taught on a rotation basis and consists of 3 areas; Product Design, Food Technology and Textiles. Students are given the opportunity to explore and experiment with different ideas, materials, technologies and techniques as they progress through the exciting and innovative units of work in each subject.

Curriculum content covered in Year 7:

Students complete a term in our specialist workshops supported by experienced staff and technician. This project begins with studying the characteristics of different materials, their sustainability issues and common uses. Students select from and use specialist tools, techniques, processes, equipment and machinery precisely to produce a final three dimensional product.

Curriculum content covered in Year 8:

Students use research and exploration, such as the study of different cultures, to identify and understand user needs. Students go on to develop their drawing skills, present their ideas and make their product using a variety of materials. A wide range of manufacturing skills are developed through using various tools and pieces of equipment to produce a final three dimensional product.

Curriculum content covered in Year 9:

The project largely focuses on research, creativity, prototyping/ manufacture and evaluating. It is an exciting brief that inspires the students and extends their technical knowledge of materials whilst developing their practical skills in a workshop. Computer aided design (CAD) and manufacture (CAM) are explored and used to give a professional finish to their final three dimensional product. Students develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations.