

Curriculum Purpose Statement: - Design and Technology

The central objective of DT is to educate students in the world of technology and manufacture by providing a wider understanding of generation of products through the design process.

We hope to make the subject engaging and relevant to all students through the manipulation of wide range of materials linking to theoretical knowledge and to encourage students to question and understand why and how a product is made.

Our further intention is to consider the link between culture, society, economics, availability of sustainable materials and production processes and how these effect designers and their decisions.

Finally, it is our aim that students continuously develop skills such as evaluating, analysing, problem solving, empathizing and communicating creatively to equip them for short term success in exams but also longer-term success in the world of employment.

We want them to have the confidence to work independently making their own decisions by recalling embedded knowledge gained through the subject.

By the end of KS3 students will:

- Have studied an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that embed practical processes and techniques.
- Acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art.
- Have had a positive and enjoyable experience that will result in many opting to study GCSE DT.

By the end of KS4 students will:

- Have used creativity and imagination to provide the opportunity for pupils to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values (NEA – Non-Examination Assessment).
- Develop their ability to evaluate past and present design and technology (Art Deco, De Stijl, Memphis, etc.) develop a critical understanding of its impact on daily life and the wider world.
- Learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.
- Have experienced high-quality design and technology education that will make an essential contribution to the creativity, culture, wealth and well-being of the nation.

By the end of KS5 students will:

- Have applied iterative design processes to develop and modify designs and to design and make prototypes / products that solve real world problems, considering their own and others' needs, wants, aspirations and values.
- Acquire subject knowledge in design and technology, including how a product can be developed through the stages of prototyping, realisation and commercial manufacture.
- Take design risks, showing innovation and enterprise whilst considering their role as responsible designers and citizens.
- Be able to demonstrate in-depth expertise in specialist areas (Textiles and Product Design) that reflect possible higher education routes and industry.
- Develop intellectual curiosity about the design and manufacture of products and systems, and their impact on daily life and the wider world
- Work collaboratively to develop and refine their ideas, responding to feedback from users, peers and expert practitioners.
- Gain an insight into the creative, engineering and/or manufacturing industries.
- Be able to create and analyse a design concept and use a range of complex skills and knowledge from other subject areas, including mathematics and science, to inform decisions in design and the application or development of technology.
- Be able to work safely and skilfully to produce high-quality prototypes/products.