GCSE Design and Technology

Key contacts: Mr Strawford
Exam Board: AQA

Overview of the course:

It is estimated that 65% of today's students will be working in jobs that do not currently exist. Students with transferable skills will be prepared for an unpredictable future and will have the ability to innovate and respond to new challenges in a creative way.

Design and Technology students will learn to communicate ideas, manage complex projects, generate creative resolutions to unexpected problems and address social/environmental issues. Transferable skills gained by studying Design and Technology include;

- Using initiative
- Being organised
- Good communication
- Being innovative
- Good team work
- Being analytical

What will you study?

This course builds directly upon our Design and Technology foundation experience in Key Stage 3 and is intended for learners interested in using materials in a practical way, whilst also understanding the working properties of those materials. Students will have the opportunity to develop skills in making high quality products using a range of materials including, amongst others, wood, metal and plastic. They will be encouraged to make a range of products, prototypes and samples, applying technical and practical expertise to ensure that the product is fit for purpose. All students will have the opportunity to use both traditional skills and modern technologies.

This qualification enables learners to:

- Develop a broad knowledge of materials, components and technologies
- Develop practical skills to produce high quality functional products
- Develop decision making skills through independent, team and collaborative work
- Communicate their decisions effectively to a third party
- Develop an understanding of quality and how this can be achieved by making to fine tolerances
- Demonstrate safe working practices
- Be able to read, interpret and produce drawings, plans and instructions
- Use materials efficiently in relation to cost and environmental impact
- Use key technical terminology related to materials and processes
- Develop the knowledge and understanding to evaluate and refine skills
- Develop an awareness of industrial practices and employment opportunities

Assessment

Non - Examined Assessment (NEA)
The Non - Examined Assessment for this course is made up of a single design and make task.

Contextual challenges are released annually by AQA on 1 June in the year prior to the submission of the NEA. The NEA is a substantial task intended to take approximately 30 - 35 hours to complete and represents 50% of the GCSE qualification.

Students will produce a prototype product and a portfolio of design evidence in which they are required to:

- Identify and investigate design possibilities
- Produce a design brief and specification
- Develop and generate design ideas
- Realise design ideas (produce a practical piece
- Analyse and evaluate outcomes

Paper 1 – (terminal examination)
Students are required to sit a single two hour written examination at the end of the course. This examination represents 50% of the GCSE and covers three main areas of study:

- Core technical principles (20 marks)
- Specialist technical principles (30 marks)
- Designing and making principles (50 marks)

Possible career path?

GCSE Design and Technology opens the door to a wide range of careers in the creative, engineering and manufacturing industries. It is also excellent preparation for careers in many other fields e.g. medicine, law and computer science. Whatever career you choose, the knowledge and skills you learn, particularly those concerned with rapidly developing technologies, will be extremely valuable. You will also develop skills, such as teamwork and time management which are highly prized by employers.