

## TECHNOLOGY OPTIONS

### Design Technology (GCSE)

This subject provides opportunities to develop an awareness of the nature and significant importance of Design and Technology in a rapidly changing society. It enables students to develop their application of knowledge, skills and understanding of one of the focus areas within an overall design and make based approach. The syllabus offers a system of assessment for GCSE which is based on clear targets and a coherent set of criteria for rewarding positive achievement.

There is a choice of five Design and Technology focus areas. The two year courses focus on one area of the subject that the student will have studied at KS3. The final GCSE grade is determined by an exam (40%) and a design and make project (60%). The courses offered include:

#### GCSE Graphic Products

The graphic products focus area is about designing and making innovative products which reflect developments in graphics based industries. During the course students will learn to use a variety of graphical techniques to develop a range of 2D work and 3D models as outcomes.

#### GCSE Resistant Materials

The resistant materials focus area is about designing and making innovative products which reflect developments in industries involved with the use of resistant materials (woods, metals and plastics). During the course students will learn to manufacture artifacts using a range of modern and traditional workshop practices.



#### GCSE Electronic Products

The electronic products area is about designing and making innovative products which reflect developments in the systems and electronics industries. This course will apply some of the knowledge that students will have gained from their mathematics and science courses to help produce electronic circuits and to program computer controlled systems (PIC).

#### GCSE Textiles

The textiles focus area is about designing and making innovative products which reflect developments in the textiles industry. Throughout the course students will explore the use of fabrics and processes to satisfy identified needs in a range of outcomes.

## GCSE Product Design



The product design focus area is about designing and making innovative products which may involve the use of a range of appropriate materials. During the course students explore a range of designing techniques including (CAD) solid modeling, 3D modeling and prototyping.

## GCSE Engineering (Double Award)

Engineering aims to provide you with the opportunity to develop the skills, knowledge and understanding involved in the making of engineered products, systems and services. The course will involve the study of electrical/electronic/mechanical engineered products.

You will complete the following units of study:

- (i) Design and graphical communication in engineering.
- (ii) Making engineered products.
- (iii) Application of technology in engineering.



Your work will be both continuously assessed and you will do unit tests in the form of short answer questions. This course is a Double Award and worth the equivalent of two GCSEs and therefore *must* be chosen in two option columns.

## Entry Level Design & Technology

This is a two year course intended to allow candidates who are not quite ready for GCSE subjects to work in a range of materials and prepare them for the world of work.

The related areas are: Graphics, Wood, Metal and Plastics. Successful candidates will receive an Entry Level Certificate and can progress onto GCSE courses.