



WHY CHOOSE PRODUCT DESIGN RESISTANT MATERIALS

Drawing, designing, being imaginative and creative, making and learning from a wide range of new experiences are fundamental to this course. The aim is to provide a flexible pathway that can be tailored to meet the needs of individual students and will build on their GCSE Design and Technology successes. Whatever your interest there is something in the subject for you.

Students have always found Design and Technology courses very rewarding and suitable for continuing into Further and Higher Education and employment.

HOW USEFUL WILL IT BE?

Whether the aim is to become an architect, engineer, artist or designer, to follow a practical, industrial or academic career, or to use the qualifications to gain a University place, this course will have something for you. The choice of course will depend on whether you wish to concentrate on Graphics or Resistant Materials. Both courses require an imaginative flair and commitment.

WHAT WILL YOU NEED TO DO TO BE SUCCESSFUL?

To study this subject you will need a minimum of five GCSE subjects at Grade A*-C. You will require a Grade C or above at GCSE ideally in this specialist area. Students will also be considered on an individual basis if they have not previously undertaken a GCSE in a related subject.

WHAT WILL YOU STUDY ON THE COURSE IN YEAR 12 – THE AS LEVEL?

The units for study for the AS Level in Year 12 are:

Unit 1: Portfolio of Creative Skills.

Unit 2: Design and Technology in Practice.

The course will centre on designing and making and develop each student's ability to work independently to high standards. Within this course you will have opportunities to work with a wide range of materials

using both traditional and modern manufacturing methods.

1) Different material

- wood
- metal
- plastics
- smart materials

2) technology and design

- design appreciation
- industrial and commercial practice
- systems and control
- sustainability

Unit 1. In the first year students must complete a portfolio with three distinct areas:- Product investigation; Product design; and Product manufacture. The latter is an opportunity to develop making, modelling and presentation skills and the design allows students to be creative without the requirement to then make the outcome. Each of these separate tasks can use different products.

Unit 2 is concerned with the knowledge and understanding of Product design, requiring the study of materials theory, product manufacture and design in practice. This unit is assessed through an examination, set and marked by the examination board.

Both units will involve the use of ICT including CAD and CAM (Computer Aided manufacture). A2 Level candidates must complete the AS Level and a further two units in the second year of the course.

HOW IS AS LEVEL ASSESSED?

Unit 1: Portfolio and products (approx. 26-30 A3 pages). **Unit 2:** 1.5 hour examination.

WHAT WILL YOU STUDY ON THE COURSE IN YEAR 13 – THE A2 LEVEL?

The units for study are:

Unit 3: Designing for the Future. Further theoretical aspects of a general nature and more advanced technology.

Unit 4: Commercial Design. Major Project involving design and make.

HOW IS A2 LEVEL ASSESSED?

Unit 3: 2 hour examination. **Unit 4:** Product and folder (approx. 26-30 A3 pages).

PRESENTATION

All students will be expected to present their design work and portfolio of evidence to a high standard using a combination of formal drawing techniques, freehand sketching and CAD. All students will be able to access the professional CAD drawing software from home.

