

DESIGN AND TECHNOLOGY GCSE Courses

*“Design and Technology is about making things that work well.
Creating these things is hugely exciting: it is an inventive fun activity”
Sir James Dyson, Industrial Designer, Inventor and founder of Dyson.*

Design and Technology offers students the ability to use skills and knowledge to creatively and independently design and make products. The subject requires maturity, independence, discipline, time management, problem solving skills and creativity.

As our economy begins to rely again on the manufacturing industry, we aim to provide courses to prepare students to thrive in careers with bright futures. Architecture, industrial design, food scientist, fashion designer, interior designer and mechanical engineer are just a few of the possible opportunities.



Here are some websites for you to find out more about careers in DT... and make an informed choice:



- Help and advice for a Creative Career: <http://www.creative-choices.co.uk>
- Careers in Food and Drink: <http://tastycareers.org.uk/careers>
- Tomorrow's Engineers: <http://www.tomorrowseengineers.org.uk/students/career-finder/>

The following courses will be offered:

- **AQA Design and Technology: Design Engineering, Product Design and Textiles**
- **AQA Food Preparation and Nutrition**

In all GCSE options, students are required not only to sit a written examination but also to produce a **major piece of coursework**. In all of the courses the emphasis is on designing and making quality products.

Design and Technology students from GCSE, AS and A Level display their work at the annual celebration and prize giving evening, called the 'Exhibition' alongside Art and Media students. With hospitality created by students, it is a night we all look forward to and hope that you enjoy it as much as we do.



DESIGN & TECHNOLOGY (Design Engineering / Product Design / Textiles)

GCSE Design and Technology will prepare students to participate confidently and successfully in an increasingly technological world. Students will gain awareness and learn from wider influences on Design and Technology including historical, social, cultural, environmental and economic factors. Students will get the opportunity to work creatively when designing and making and apply technical and practical expertise.

The GCSE allows students to study core technical, designing and making principles, including a broad range of design processes, materials techniques and equipment. They will also have the opportunity to study specialist technical principles in greater depth.

The DT course is equally weighted between the exam and coursework. A focused, determined and self-disciplined approach is needed to overcome problems inherent with designing new products. Students will be expected to write a brief and respond to real life situations. The coursework will be completed within each discrete materials area, although any material will be able to be utilised to best solve the problem. The context title will be released in the Summer just before Year 11 starts, which means that all coursework can only be completed in Year 11. Theory will be completed throughout both years to support success in the final exam. At this point we will communicate with you the interim deadlines designed to support student progress.

The exam covers a variety of core and specific principals where students demonstrate knowledge and understanding of all material areas and theory from energy production through to smart materials and much, much more. The new theory expectations are more varied and cover design in a much wider context. It's an exciting specification and we are all looking forward to teaching.

This course will suit independent self-disciplined, creative students who enjoy problem solving, and have an interest in the world of design. Students are encouraged to experiment with materials and techniques, take risks and be adventurous within the confines of the given context.

Example contexts include:

- Addressing the needs of the elderly
- Children's learning and development
- The contemporary home

What will I learn?

In Year 10, students will learn how to shape and form a variety of materials and make a range of products using the selected materials area. Students will learn how design and production techniques have influenced the world. Students will focus on theory lessons throughout both years.

In the Summer of Year 11, students will focus on reacting to the context with a creative brief and solution. As solutions are student driven, they must be determined and resilient. Students are expected to make a contribution to the cost of materials/ingredients they choose to use.

Everything around us is designed and manufactured: everything from your iPad, to chairs, to pens and buildings.



FOOD PREPARATION AND NUTRITION GCSE

GCSE Food Preparation and Nutrition is an exciting and creative course which has a focus on theoretical knowledge as well as practical skills to ensure students develop a thorough understanding of nutrition, food provenance and the working characteristics of food materials. At its heart, this qualification aims to focus on nurturing students' practical cookery skills alongside a strong understanding of nutrition.

Food preparation skills are integrated into five core topics:

- **Food, nutrition and health**
- **Food science**
- **Food safety**
- **Food choice**
- **Food provenance**



The food industry is Britain's largest industry, and Food Preparation and Nutrition is a useful subject that could lead to careers in nutrition, medicine, dietetics, food product development, marketing, manufacturing, hospitality, food styling, journalism and many more.

Upon completion of this course, students will be qualified to go on to further study, including the Food Science and Nutrition Course at Sixth form, one of many nutrition-based degrees, embark on an apprenticeship or full-time career in the food industries or medical profession.

Students will complete 2 non exam assessments worth a total of 50% of the final grade. The first task is a food science investigation where students will demonstrate an understanding of the working characteristics, functional and chemical properties of ingredients through practical activities.



The second task is a food preparation assessment in which students' knowledge, skills and understanding in relation to planning, preparation, nutrition, cooking and presentation of food will be evaluated. Problems to solve and example contexts include:

- Addressing the nutritional needs of different life stages
- British and international cuisines
- Preventing diet related disease and illness

Students will be expected to provide their own ingredients or pay to cover the cost for each practical lesson.

The remaining 50% of the grade is a written examination that will assess the knowledge of food preparation and nutrition and is based on the five core topics listed above.

