

Why **DT**?

**GCSE Design and technology qualification will prepare students to become creative and critical thinkers, developing skills to design and make prototype products that solve real life & relevant problems.**



**Why DT?**

**Students can select one Design & Technology Specialism subject to develop knowledge and understanding of:**

- **Product Design**
- **Textiles (including Fashion)**

**Students learn about specific materials related to their chosen subject this includes techniques and processes, in order to manufacture a working prototype product to achieve a functional design solution.**

**During the two year course they will have to study a wide range of materials including papers and boards, timber, metals, polymers and textile fibres and fabrics, they will also develop an understanding of systems, programmable components and mechanisms to support any potential design solutions they may wish to develop in their chosen subject area.**

**Why DT?**

# The course structure

## Examination

**This accounts for 50% of the final GCSE grade (100 marks).**

**The examination will take place in June 2025**

*The examination component questions will cover both 'core' and 'in-depth' subject content.*

***The examination is 2 hours***

*Section A – Core technical principles (20 marks)*

*Section B – Specialist technical principles of your chosen specialism (30 marks)*

*Section C – Designing and making principles (50 marks)*

**Why DT?**

# The course structure

## Non Examination Assessment

**This accounts for 50% of the final GCSE grade (100 marks).**

**The non examination assessment will take place in June 2024**

*In the summer term of Year 10, students would undertake a practical project in school and based over 35 hours. This will be is a substantial design and make task where real life needs and contexts are identified where they 'explore, design, create and evaluate'. Design solutions are created to meet those needs and a prototype product will be manufactured.*

*All work is presented in a portfolio.*

# Why DT?

# What students will learn?

GCSE D&T will equip students with a range of transferable practical and theoretical skills to:

- **Generate creative solutions to benefit people and the planet.**
- **Communicate and develop ideas through sketches, models and computer aided design.**
- **Learn how products are manufactured in industry.**
- **Manipulate materials and use tools and equipment to create ideas.**
- **Work with technology and manufacturing techniques such as 3D printing, laser cutting and other computer aided design and specialist subject skills.**

What will

you be doing?

## Understanding users

- Who your product is for and their needs
- How the product will be used



## Learning about materials

- Including traditional, smart and modern materials
- Selecting the best materials for making your designs

## Designing:

### including Computer Aided Design (CAD)

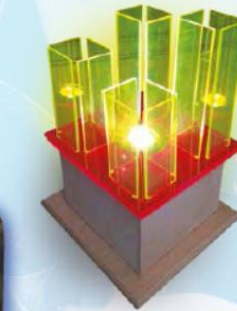
- Taking risks to create more imaginative ideas
- Clearly communicating your design ideas to others



## Making:

### including Computer Aided Manufacture (CAM)

- Working safely with tools and equipment – including 3D printers
- Making high quality working prototypes



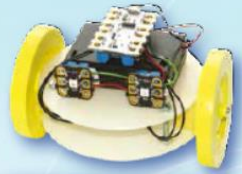
## Analysing products

- Understanding how everyday products have been designed and made
- Learning about the work of past and present designers, makers and engineers



## Learning how things work

- Using mechanisms, electronics and computers to control things; including robots
- Designing and making products that don't fail in use



## Evaluating your own and others' work

- Expressing your opinions about products and services, to inform...
- ...the development of better solutions to real-life problems



Design and Technology is purposeful, as well as being fun and exciting! Studying GCSE Design and Technology will build on what you learnt about designing and making in Key Stage 3. You will use your knowledge and skills to design and make new and better solutions to real problems - on your own and with others - working with materials you choose.

# Why DT?

Future careers ...

**Engineer** FURNITURE  
ENTREPRENEUR

ROBOTICS **Set Design**

**Architect** **Gaming**

ECO DESIGN Industrial Design

**Electronics** **Fashion**

Programming GRAPHICS  
MANAGEMENT Product Designer

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