

Design and Technology teaches you about the process of designing products, from developing design solutions to prototyping and manufacture. It makes you an excellent problem solver and creative thinker.

Green Building Designer

New buildings must prioritise nature-based solutions to improve biodiversity and be climate resilient and energy efficient. You'll design eco-friendly buildings using sustainable materials and construction methods which minimise energy use. The UK government wants to halve energy use by new buildings by 2030 to help achieve net-zero carbon emissions by 2050. You'll need to research and understand the latest sustainable materials and construction methods for your projects.

Augmented Reality (AR) Designer

You'll design apps, graphics and multimedia content that adds additional virtual information to a physical environment. AR designers were named as one of the 20 most in-demand creative, digital and marketing professionals in 2019. The global AR industry is predicted to grow by 46.6% per year to become a \$72.7 billion industry by 2024. You'll think up ways to integrate the virtual with the physical to produce content that is useful, practical and enjoyable.

How will the most popular industries for DT graduates change?

Advertising, marketing and Public Relations - More and more creative agencies are hiring digital art directors.

Media - Organisations' most successful social media posts include visual content created by designers.



'Preparing students for a lifetime of employability'



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DESIGN &
TECHNOLOGY

5 work skills that Design and Technology will give you:



Creativity

To innovate you have to be creative. It's an important part of the design process and it's something you'll be encouraged to do during your studies. You have to be creative with existing designs, as well as to come up with new ideas.



Teamwork

Many of the projects you work on at school will be in small groups. You'll learn how to discuss ideas and find the best ways to solve a design problem. Then you'll work together to create a design and/or prototype.



Problem Solving

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Methodical Thinking

You'll learn about the design process and all the steps involved. This includes carrying out research to define the need for a product, creating a design proposal and a prototype. You need to think methodically to ensure you produce user-centred designs.



Information Technology

You'll be using digital tools throughout the design process. You'll also learn how to work with some of the IT tools used in the design industry. This includes computer-aided design (CAD). You'll also learn about computer-aided manufacture (CAM) and virtual modelling.

Where can Design and Technology take you:

Hospitality & Catering:

- Catering Manager
- Chef - (Head Chef, Sous Chef & Commis Chef)
- Consumer Scientist
- Quality Controller
- Events Planner
- Microbiologist
- Food Technologist
- Nutritionist
- Food Photographer

Engineering:

- Automotive Designer
- Aerospace Engineer
- Architect
- Clinical Engineer
- CAD Visualiser
- Electrical Engineer
- Silversmith
- Materials Engineer
- Pre-press Operator
- Product Designer
- CNC Technician
- Design Engineer
- Machine Printer
- Product Developer
- Kitchen Designer

Graphic Design:

- Advertising Art Director
- Art Editor
- Exhibition Designer
- Graphic Designer
- Packaging Technologist
- Sign maker
- Bookbinder/Print Finisher

Textiles:

- Costume Designer
- Fashion Designer
- Garment Technologist
- Sewing Machinist
- Tailor
- Furniture Designer
- Upholsterer
- Glass-maker
- Metal Engraver

Practical:

- Joiner/Carpenter
- Sheet Metal Worker
- Vehicle Body Repairer
- Model/Prototype Maker
- Interior Re-modeller

Future of Job Facts:



Construction

With almost **300,000** businesses trading in construction, this sector accounts for 7% of all employment in the UK. That's 2.3 million jobs.



Art & Design

Over **half a million** people work as Artists, Designers, Performers, Musicians and Craftspeople. More than half of artists in the UK have a degree, compared with a quarter of the whole population.



Science & Research

Between 2016 and 2023, jobs in science and research will increase at twice the rate of other industries, creating **142,000** new jobs. One in every six jobs will be in science and research.



Engineering

The proportion of young engineers has dropped over the last decade. This means there will be high demand for younger workers in the years to come!



Manufacturing

The manufacturing sector employs around **three million** people and accounts for 9% of employment in the UK. That's a lot of jobs!



IT & the Internet

People with qualifications in Information Technology have one of the highest rates of employment in the UK.