

Understanding users

- who your product is for
- what their needs and preferences are
- how the product will be used

Sustainable design

- including sustainability in every design
- awareness of all aspects of sustainability, from source to material processing and manufacture to the end product and end of life

Knowing about materials

- learning about smart and modern materials
- considering their working properties
- selecting and using the best materials to make your design solutions

Designing

- taking risks to create more imaginative ideas
- taking ideas forward stage by stage, with CAD and prototype models
- clearly communicating your design ideas to others

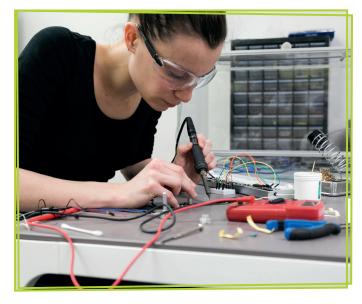
Making

- working safely with tools, equipment and machinery

 including CAD/CAM 3D printers
- making high quality working prototypes
- considering the costs and implications of commercial production

Knowing how things work

- using mechanisms, electronics and computers to control products, including robots
- designing and making products to withstand forces and not fail in use
- knowing how energy can be stored and used



Analysing products

- understanding how products have been designed and made
- considering the suitability, and sustainability, of everyday items
- learning about the work of past and present designers, makers and engineers.

Evaluating your own and others' work

- expressing opinions and challenging assumptions about products and services
- making informed decisions and judgements, and in doing so...





...developing better solutions to real-life problems

Design and technology is...



A way of solving real-world problems

The knowledge and understanding you get from D&T projects give you transferrable skills that you can apply to solving real issues in the real world. Collaborative working, iterative design approaches, planning and problem-solving are skills you can put to use in a vast range of career options.

Careers for the future

Technology is developing all the time and keeping up with fast-paced change is essential. The jobs people will be doing tomorrow will be radically different from many of those done today. Future proofing your prospects is essential if you are to have control over your choices. GCSE D&T opens doors to a wide range of careers in the creative, engineering and manufacturing industries as well as medicine, law and computer science. The knowledge and skills you learn, such as teamwork and time management will be valued by employers.



Creativity and innovation – create fantastic designs and make brilliant products

Design and Technology is purposeful, but it's also exciting and fun! Studying D&T will involve you in learning about designing and manufacturing, using your knowledge and skills to design and make new and better solutions to real problems – on your own and with others – working with the materials you choose.

It is:

- Sustainable design
- Skills development
- Electronics
- Programming and control
- Materials
- Robotics
- Structures
- Mechanisms
- Engineering
- Digital design
- Textiles technology
- Solving people's problems...



