

Design and Technology

What will I learn?

The course is split into three core areas:

Core technical principles

Students will learn about industry, enterprise, sustainability and production techniques, energy generation and storage, and smart/modern materials. This is also the section in which all material areas are covered, as well as control systems.

Specialist technical principles

In this section we will study one of the material areas in greater depth – this year this will be timber based materials. This will involve studying material selection, properties, sources and origins, forces and stresses and ecological factors.

Designing and making principles

This unit involves the students designing and making a product. They will investigate the work of other designers, and design and manufacture a product based on different design strategies. Students will be able to use a range of materials and processes, and be creative and imaginative in their approach to solving design and manufacturing problems. The use of CAD and CAM technologies, including our 3D printers and other state of the art equipment, is a fundamental part of this unit and something that our students always enjoy.

What skills do I need?

You will need to be able to :

- Solve problems in a creative way using a variety of materials and techniques.
- Design and make a prototype that meets a set design brief.
- Use a combination of wood, metal, plastic and smart materials.
- Use CAD/CAM.
- Learn all about the different material areas in design and technology.

Assessment

Examination

- Paper 1: 2 hours | 50%

Non-examined assessment

- Design and develop a prototype: 30-35 hours approx. | 50%

Could lead to:

By studying design and technology, you will be able to build up your creativity, problem solving, planning, and evaluation skills. Since many projects are done via group work, you'll also gain communication and teamwork skills. Design and technology can set you up for a career in a wide variety of industries such as design, graphic design, website design, industrial design, fashion, engineering, architecture, information technology, careers in hospitality, and even education .