KS3 Design Technology

What the curriculum is designed to do:

We want our students to enjoy Design Technology and through KS3 develop a love for the subject and an understanding of the broad range of careers and options available to them that utilize the skills learnt. The students will work with different materials, equipment and processes to make products and develop designs that satisfy different design briefs and contexts.

Year 7 introduces students to designing and making; developing their drawing skills to help them communicate their ideas and working with tools and machines in the workshop. Safety of themselves and others is a key area of the curriculum. Through years 8&9 designing and making skills are developed as projects and tasks become more complex. Students begin to design for a wider audience and develop their own designs. We work in an iterative rather than linear way using testing and trialling to develop skills alongside ideas. At the end of KS3 all students will be able to work with different materials and processes confidently and safely.

How do we deliver the curriculum:

		Theory	Practical outcome
Year 7	Design processes Drawing skills Working with materials Sustainability	Working safely in the workshop CAD/CAM processes Graphic techniques	Blockbot Acrylic keyring, shop design Boardgame
Year 8		Using tools and equipment accurately Timber and manufactured board Polymers	Wooden box Architecture Wearable technology CAD model
Year 9		Electronic systems and control Joining and finishing methods Mechanisms and graphics	Colour change light Home accessory Pop-up Book

How we assess students:

In KS3 Students will be assessed across food and D&T to formulate one grade. Students are given verbal feedback frequently to ensure they are continuing to improve their practical ability. Within each unit of work there is a particular assessment focus which is recorded and targets set for the next unit of work. An end of year test covers materials and process theory.

How the curriculum aids personal development:

Problem solving, resilience and learning from mistakes are an essential part of the curriculum as well as developing a wide range of practical skills. We aim to provide a safe and supportive learning environment to encourage our students to embrace their mistakes and see initial failures as part of the wider learning experience. Working in teams on projects and challenges develops communication and problem solving skills which are valuable transferrable skills in the world of work.

We would hope that at whatever stage our students complete our subject up to, they are able to troubleshoot practical problems at home and be able to fix/build/create things themselves.

Eduqas Design Technology

What the curriculum is designed to do:

KS4 Students will continue to develop their knowledge in designing and making. Identifying problems, analysing and researching to develop design briefs and criteria. Sketching and modelling ideas and working out how to turn a sketch into a product. Practical skills are developed, building on KS3, to ensure that students are able to tackle more complex projects and builds. The theory of design is studied as well as developments in technology and the impact that has. Sustainability is a key area of the curriculum which links to the KS4 science and geography curricula. Students will also investigate electronic and mechanical systems.

The course is structured to develop independence in the students so that when they begin their NEA (coursework) they have all the skills they need to complete that part of their GCSE

How do we deliver the curriculum:

Year group	Theory– Mixture of independent work, teacher led lessons and assessment to develop necessary knowledge for y11.	Projects
Year 10	Materials and processes Electronic and mechanical systems	Laminated arm lamp Electronic systems Practice NEA How can a museum raise money?
Year 11	Design Technology and our world Energy Technological developments	NEA—contexts released 1 June in Y10. Identify a problem linked to the context, design, make and test a product that solves the identified problem

How we assess students:

Project work is assessed using GCSE criteria with specific foci for each project. Feedback is given to students to help them develop and they are given time to respond to feedback before the final assessment of the project. Theory is tested at the end of the topic using exam questions every half term. The final GCSE assessment consists of 50% for the NEA, internally assessed and moderated, and 50% for one final 2 hour exam.

	Description of assessment	When does the assessment take place
Year 10	Exam style assessment end of theory topic Design process and manufacture	Every 6 weeks September to May End of each project. Assessed and targets set
Year 11	NEA—coursework . Sketchbook, formal pages and completed product. Exam style assessment at end of theory topic	Completion March Y11. Approximately every 4 weeks September to February.

How the curriculum aids personal development:

Design technology encourages creativity and problem solving. It teaches how to take risks and so become more resourceful, innovative, enterprising and capable. Students develop a critical understanding of the impact of design and technology on daily life and the wider world.

It sets students up for many creative and practical careers and encourages them to think about important issues beyond the school curriculum.