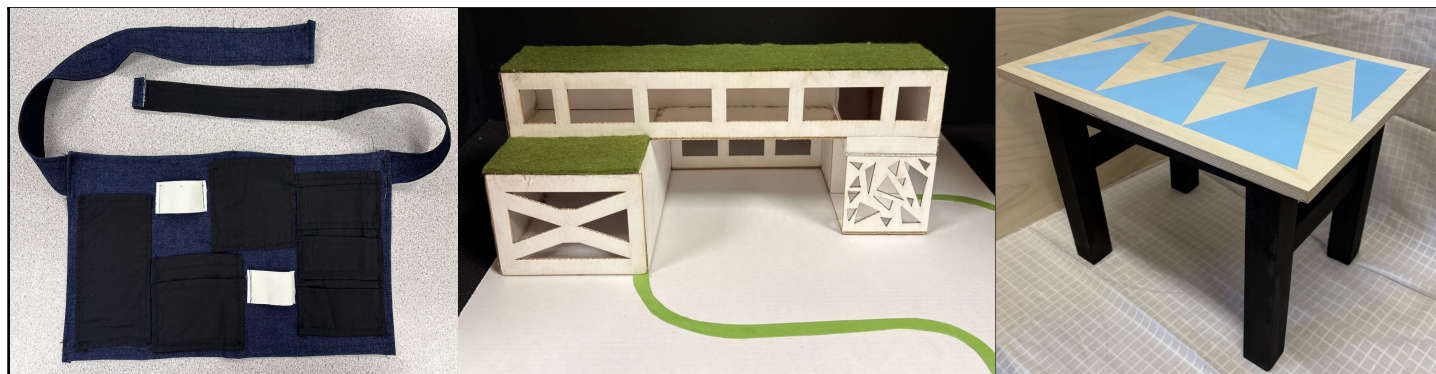


Design & Technology



Examination Board: AQA
Subject Leader(s): Mr D Tilstone-Hallam



How is the GCSE Course Assessed?

Unit	Topics/Unit Title	Assessment	GCSE
Paper 1	Core Technical Principles Specialist Technical Principles Designing & Making Principles	Written Exam 2 hrs 100 Marks	50%
NEA	Practical application of core technical principles, designing and making principles and specialist knowledge.	Coursework Approx 35 hrs Substantial design and make project 100 marks	50%

What is the Curriculum Intent?

We aim to securely equip students for life beyond school as successful, confident, inquisitive designers. We believe our curriculum is designed to build strong foundations in the knowledge, understanding and skills which lead to academic and personal success. We want our students to enjoy the challenges that learning offers.

Our aims are underpinned by a culture of high aspirations. Through developing positive relationships, we work towards every individual having a strong belief in their own abilities so that they work hard, build resilience and achieve their very best.

The Design and Technology curriculum is planned to enable all students to develop skills in the following areas:

- To foster students' skills as designers by guiding them through an iterative design process encompassing researching, designing, making, and evaluating, while also building technical knowledge across various material areas
- To gain a range of practical skills including the need for precision and a passion for design
- To understand the impact people and products have on the environment
- To gain a wider understanding of the world around us and the impact people and products can have on this
- To develop an understanding of health and safety within a range of areas

Course Overview:

During their GCSE journey, students will have five Design and Technology lessons across a fortnight to develop and embed a range of practical workshop activities and classroom based theory lessons.

During year 10 students will develop and embed the following:

- Demonstrate a range of workshop skills in a confident manner.
- Be able to research and understand the needs of a user.
- Improve subject knowledge and explain the use of materials and processes.
- Make the link between D&T in the workshop and the real world.
- Demonstrate a range of skills to problem solve by working to a design brief and specification.
- Have an understanding of how designers work and use this as inspiration for their own designs.
- Understand the iterative design process and the importance of evaluating their work.

Course Projects:

Year 10

- Textiles Toolbelt

This project challenges students to design and manufacture a functional textile toolbelt, demanding a comprehensive demonstration of textile workshop skills and proficiency with relevant hand tools while adhering to strict health and safety protocols. Students will apply their theoretical knowledge of textiles, focusing on sustainable material choices and integrating principles of ergonomics and anthropometrics to ensure optimal user comfort and functionality, all while working to specific tolerances.

- Architectural CAD/CAM Project

This project challenges students to design and manufacture a scaled card model of an innovative school DT building, showcasing their proficiency in CAD/CAM software, including 2D Design for precise layouts and Google SketchUp for architectural visualisation. Students will critically explore various sustainability issues, such as the 6Rs, carbon footprint reduction, and the integration of renewable energy sources and sustainable building features within their designs. Inspired by the visionary and technologically advanced architectural principles of Sir Norman Foster, this project aims for students to present a final model that demonstrates sophisticated CAD/CAM skills and a deep understanding of environmentally conscious design.

- Materials Project - Coffee Table/Footstool

This project challenges students to design and manufacture either a functional coffee table or a footstool, demanding a comprehensive demonstration of workshop skills and proficiency with various hand tools. Students will apply their theoretical knowledge of timbers, metals, and polymers, alongside an understanding of crucial health and safety protocols and the importance of manufacturing to specific tolerances. The project requires students to generate innovative design ideas, refine their concepts through iterative processes, and ultimately present a well-crafted final product that showcases their technical abilities.

End of Year 10 & Year 11

- Non Examined Assessment (NEA)

This element of the course allows students to respond to a given contextual challenge set by AQA on the 1st June in the year prior to submission. It represents 50% of the overall GCSE, will take 30 – 35 guided learning hours and will be marked out of 100. Students will respond to the contextual challenge by completing a substantial design and make activity guided by their own independent learning. Students will identify a clear need from a Primary user in which they will hope to solve through generating ideas and developing a solution through an iterative approach.

This course will appeal to students who:

- Are interested in developing their problem-solving skills linked to a design project outcome
- Enjoy making products in response to a given problem or one that they have identified
- Can use their imagination to develop solutions to problems
- Are interested in learning how products are influenced by design styles, cultures and society
- Wish to learn more about how products are manufactured in industry