

# DESIGN TECHNOLOGY



**Core content and specialist knowledge:** Revise and practice exam papers in preparation for your final exam in DT.

**FINAL GCSE EXAM**

**EXAM REVISION**

**AO3: Evaluate & Test:** Gain feedback throughout your project, and test your final product – have you met your brief?

**AO2: Realise Design ideas:** Manufacture your product using skills and processes used throughout your DT journey.

**AO2: Generate & Develop Design Ideas:** Develop your sketches and communicate ideas. Developing them using modelling techniques

**AO1: Specification & Brief:** Clarify the needs and wants of the project writing your own brief & specification

**AO1: Research & investigation** Follow on from your summer task to further understand the context. Client interviews, product, site analysis and designer research.

**NEA COURSEWORK**

**YEAR 11**

**Initial Concept Sketches:** What ideas do you have already? Can you visualize them?

**Investigate the design possibilities:** What is the design context? What research can you carry out to gather ideas?

**Design:** Designing for children. How do we make a product fun, educational and safe?

**Materials:** What materials will be appropriate for your product? What materials are sustainable?

**Testing / Modelling:** Use various testing and modelling methods to develop your product

**Make:** Use a wide range of tools and processes to produce your final product. You decide!

**Design:** Reference key design movements top to develop a stylish functional product.

**Materials / Make:** Use materials you have not combined before such as concrete, acrylic and timber to develop a unique stylized product.

**WOOD PROJECT: Oak Box**

**GCSE NEA CONTEXTS**

**DESIGNER LIGHTING**

**Assessment:** What have you learnt about DT?

**Make:** How to cut and shape steel. What is Riveting and what other joining methods are there?

**Design:** Follow a set shape to the millimeter. How accurate can you be in the manufacture?

**Make:** Develop your design through iterative processes and modelling, testing & evaluating before making a final product.

**Design:** Using removal techniques to develop bird box based on design movements.

**3D Model:** Use a wide range of skills, materials and processes to develop your unique product.

**Design:** Focus your idea on the work of famous designers, use architecture as inspiration.

**YEAR 10**

**METAL PROJECT: Bottle Opener**

**WOOD PROJECT: Bird Box**

**GRAPHICS: Google Sketchup Orthographic**

**KS4**

After choosing options in year 9, focus your studies in GCSE DT in years 10 & 11, through exciting, real life projects. Deepen your understanding of DT in the world around us whilst developing products that help various needs and users.

**Make:** Wood joints Use of hand tools and machines

**Evaluate:** What makes a good box? How can you improve your skills?

**Assessment:** What have you learnt about DT?

**Research & investigation** Looking at existing products and client themed research.

**Make:** What is Lamination? How does it add strength?

**Evaluate:** What other techniques could be used? How can you improve?

**Materials:** Wood classification. Where does timber come from?

**WOOD PROJECT: Hinged Box**

**Make:** How make realistic models. Do we need to use CAD/CAM?

**Design:** How to generate designs and how to be an iterative designer

**Design:** What is Typography and why is it important? Designing for a user and client.

**Assessment:** What have you learnt about DT?

**Draw:** How to draw In 2 Point Perspective

**Draw:** What is Orthographic Projection?

**GRAPHICS: Chocolate bar packaging**

**LEGO!**

Work in more depth on projects, honing your practical skills, improving your resilience & problem solving whilst developing independence in the workshop.

**Design: CAD** What is computer aided design? Learn to use the basics of 2D software to design products

**Make:** Use of hand tools and machines

**Testing:** Will my product work? What can I do to improve it?

**Materials:** Working with acrylics, cutting and finishing techniques.

**Make:** What is CAM? Use the laser cutter to produce your final product!

**Evaluate:** How has CAD / CAM helped you make a product?

**SYSTEMS: Bridge project**

**POLYMERS: Ball bearing game**

**YEAR 8**

**Make:** Use of hand Tools.

**Assessment:** What have you learnt about DT?

**Assessment:** What have you learnt about DT?

**PRESENTATION SKILLS**

**Introduction to the workshop:** Health and Safety

**YEAR 7**

**KS3**

Experience a wide range of fun and exciting projects that teach you valuable skills in the workshop, understanding different materials and how they work.

**Research & investigation** Looking at existing products and client theme research.

**Assessment:** What have you learnt about DT?

**Shading:** How to enhance 3D drawing

**Design:** 3D Drawing in Isometric & Oblique