

# DESIGN TECHNOLOGY

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

**FINAL GCSE EXAM**

Mock 3

**EXAM REVISION**

**A06: Evaluate & Test:** Gain feedback throughout your project, and test your final product – have you met your brief?

**A05: Realise Design ideas:** Manufacture your product using skills and processes used throughout your DT journey.

**A03&4: Generate & Develop Design Ideas:** Develop your sketches and communicate ideas. Developing them using modelling techniques

**A02: Specification & Brief:** Clarify the needs and wants of the project writing your own brief & specification

**A01: Research & investigation** Follow on from your summer task to further understand the context. Client interviews, product, site analysis and designer research.

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

Can you visualize them?



**YEAR 11**

**NEA COURSEWORK**

Mock 2

**Design:** Designing for a family. How do we make a product safe, functional and easy to clean?

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

**Make:** Develop independence in CAD using 2D design software to make complex design ideas.

**Research:** Existing products Etc.

**Design:** Using existing products and user needs/wants design a suitable product that has clear ergonomic features

**Know / Make:** Use a range of hand and CAM Skills/ processes and materials you are familiar with

**Mock 1** Investigate the design possibilities: What is the design context? What research can you carry out to gather ideas?

What is the design context? What research can you carry out to gather ideas?

**Design:** A core drawing module to kickstart year 10 (revisits earlier skills)

**CORE DESIGN SKILLS plus**

**CAD / PLASTICS**

**ERGONOMICS / CAD**

**GCSE NEA CONTEXTS**

**Make:** An opportunity to make a selected product in batches

**Batch Production**

**Evaluate:** What skills have you developed? Test your product

**Know:** Working with a range of materials

**Make:** Own product using iterative design process

**Design:** Using the iterative design process create a range of ideas to develop

**Know:** About metals – ferrous, non-ferrous and alloys

**Develop:** Test product with a phone / tablet Design / suggest improvements

**Make:** Sheet metal work Dip coating

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.

**YEAR 10**

**Batch Production**

**Iterative Design Project / 6R's**

**All ABOUT METALS 2**

**Design:** Freehand sketching CAD development

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

**Make:** Can you assemble an accurate product using machines and tools independently?

**Evaluate:** What skills have you developed? Test your product and consider how you would improve it.

An opportunity to work with metals

**All ABOUT METALS 1**

**YEAR 9**

**All ABOUT METALS 2**

**Design:** Modelling Following orthographic drawing

**Know:** Light gathering acrylic What is a PCB? Solder Standard components

**CAD / ELECTRONICS & PLASTICS**

**Evaluate:** At each stage of making, how can you improve your product? Would you change anything?

**Make:** Using wood joints to construct a box.

**Design:** Designing for a user and client. Develop design ideas using a grid.

**Know:** Timbers - hard woods and softwoods, manf. Boards why do we use them?

**WOOD JOINTS / GRID DESIGNS**

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

**Know:** Polymers Classification. What is a polymer? Material properties

**Design:** Designing with restrictions Orthographic Projection & Rendering

**Make:** Lamination / Laser What is CAD/CAM? Learn to use the basics of 2D software to design products

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

**Baseline Assessment:** Re-sit the same paper to check progress

**CAD / ALL ABOUT WOOD**

**TEAM ACTIVITY**

**YEAR 8**

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

**Make:** Glues & Finishes Use of hand tools and machines

**Design:** Designing "core" drawing skills

**Know:** All about wood. Where does timber come from?

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



**Design:** Introduction into a range of core drawing skills



**Baseline Assessment:** What do you already know about DT?



**YEAR 7**

**CORE DESIGN SKILLS**

**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.