

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?.



Knowledge: Investigating the work of other designers.

Deepen your understanding of DT in the world around us whilst developing products that help various needs and users. We will place more emphasis on creative thinking this year

Sources & Origins Where does timber come from and what are the environmental impacts of using it?

Commercial manufacturing We will look at the manufacturing processes used in industry on a large scale

Encouraging wildlife into the garden

Design: Develop your skills in creative designing, and master formal 2D & 3D drawing techniques

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

NET: Investigate the emergence of new and emerging technologies

Mechanisms: Investigate how we can achieve movement using mechanism



GCSE NEA CONTEXTS



Working with timber We will look at how we can work with timber to make high quality products

Materials: We will learn everything we need to know about timber

Timber

YEAR 10

KS4

Design: Using 2D CAD software to create your design ready for CAM

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

Knowledge Polymers, CAD/CAM & Quality Control

Bathroom Storage Device

Make: Wood joints. Using skills to develop high quality craftsmanship products.

Design: Isometric Projection and rendering skills. Using removal techniques to develop an innovative design influenced by others

Designer Mirror

Make: Develop your design through iterative processes and modelling, before making a final product using CAM.

Design: Using ANTHROPOMETRICS & ERGONOMICS when designing.

Quality Control: Using Jigs & templates?

Make: Use appropriate tools to shape and finish your product independently?

Physical & Working properties: How to describe materials using the correct technical language?



Materials: Metals - Categories of metals and how to work with them?

BOTTLE OPENER PROJECT

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



Make: Develop independence in the workshop to make complex design ideas.

Materials: Working with manufactured board and circuitry to develop a working desk lamp.

MECHANISMS PROJECT

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



Materials: Electronic Components? What is a circuit?

Design: Designing with restrictions Designing for a user Modelling



Make: Shaping manufactured boards Basic circuitry and soldering

Evaluate: Does your product work? How can you fix problems?



YEAR 8

PHONE ALARM PROJECT

Design: Designing for users Measuring Rendering CAD design development



DESK TIDY PROJECT



YEAR 7

Evaluate: How can I assess the quality of my product? How do I know how to improve it?



Make: Wood joints Use of hand tools and machines Thermo - Forming



Materials: Wood classification. Where does timber come from?



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

KS3