

DESIGN TECHNOLOGY

	AUTUMN TERM 1	AUTUMN TERM 2	SPRING TERM 1	SPRING TERM 2	SUMMER TERM 1	SUMMER TERM 2
	Topics	Topics	Topics	Topics	Topics	Topics
YEAR 7	Taught on an 8-week carousel with Design & Technology, Art: Textiles and Critical Thinking. DT: HOLOGRAM PROJECT Introduction to technical drawing skills, design specification, vacuum forming and paper engineering.					
YEAR 8	Taught on an 8-week carousel with Design & Technology, Art: Textiles and Critical Thinking. DT: DESIGNERS PROJECT Avoiding design fixation, design history (looking at 8 designers), Freehand sketching skills, CAD skills via Google SketchUp, modelling and prototype skills.					
YEAR 9	Introduction to the workshop, Health & Safety, Using basic tools and equipment. Please note due to rooming restrictions classes alternate topics in different orders to facilitate use of the workshop	Introduction to 2D Design CAD. Students to create a custom ruler in 2D Design and laser cut.	Biomimicry, design work, introduction to materials (timbers and polymers) prototyping	Practical workshop skills developing jewellery project. Laser cutting, peter casting, shaping materials. Finishing techniques.	Theory: New & emerging technologies. The work of others. Sustainability and the environment.	Systems approach to designing. Introduction to electronics with a focus practical task.
YEAR 10	Designing & Making Principles- design skills, recap of new and emerging technologies	Mechanical Devices- Marble Run, forces and stresses & Practice NEA. CAD Fusion assignment	Materials and properties, Specialist Principles- Papers and Boards & Practice NEA	Materials and properties: Common Core Materials Practice NEA	Practice NEA & energy & storage, sustainability issues in design & manufacture, the work of others.	GCSE NEA- AO1: Identify, investigate and outline design possibilities to address needs and wants.
YEAR 11	GCSE NEA • Generating design ideas AO2: Design and make prototypes that are fit for purpose.	GCSE NEA • Developing design ideas AO2: Design and make prototypes that are fit for purpose.	GCSE NEA Realising design ideas. Analysing & evaluating. AO3: Analyse and evaluate: design decisions and outcomes, including for prototypes made by themselves and others wider issues in design and technology.	Revision of theory: Specialist Principles- Papers and Boards and Designing and Making principles.	Revision of theory. Common Core	

DESIGN TECHNOLOGY

YEAR 12	Graphical communication. Materials and their application. Composites and Paper & Boards (material properties and testing). Design History: design styles and movements. Model Chair project. Autodesk Fusion CAD project. Smart and Modern Materials.	Timber, metal and paper and polymers material properties. Phone box repurposed project. Practical skill development. Critical Analysis and Evaluation	Technology and Cultural change. Responsible design. Metal wastage, enhancement, fabrication, addition and finishes. Home pod project. Health & safety. Accuracy in manufacture.	Inclusive design project. Digital design and manufacture. Enterprise and marketing in the development of products. Digital design and manufacture. The requirements for product design and development. Product disassembly. NEA preparation.	A-Level NEA: AO1 Section A – Identifying and investigating design possibilities. Theory: design for manufacture, maintenance and repair. Materials and their applications. Enterprise and marketing. Feasibility studies.	A-Level NEA: AO1 Section A – Identifying and investigating Section B– Producing a design brief and specification A-Level NEA: A02 Section C Development of design proposal(s)..
YEAR 13	A-Level NEA: A02 Section C Development of design proposal (s)..	A-Level NEA: A02 Section D – Development of design prototype(s) Theory: Accuracy in Design and Revision	3-week NEA break to focus on examination. Theory; National and international standards in Product design. Designing and Making Principles. Exam technique and Maths in Product design. A-Level NEA: A02 Section D – Development of design prototype(s) Theory: Designing and Making Principles cont. Theory: Revisiting topics	A-Level NEA: A02 Section D – Development of design prototype(s) Theory: Designing and Making Principles cont. Theory: Revisiting topics A-Level NEA: A03 Section E – Analysing and evaluating and Revision of theory.	Revision of theory. Practice Examinations	