

Technology Curriculum Overview

YEAR 7

	AUTUMN TERM	SPRING TERM	SUMMER TERM
	Technical Drawing British Standards of Technical Drawing Students will learn the different types of technical drawing lines, covering 5 key lines as well as the ability to dimension and scale drawings correctly within British Standard BS 8888. These skills will be applied to produce a Lego block using Computer Aided Design.	Sustainability and Project Planning The 6 R's and product life-cycle analysis Students will be introduced to the work of Hundertwasser. They will research his approach to art and the context in which the art was made. Students will produce a visual research sheet.	Materials and Tools Working with Plastics and Composites Students will learn the properties of plastics and composites and the tools that are used to work with these materials. Students will apply their orthographic projection drawing skills to mark out and produce an accurate cube using card.

YEAR 8

	AUTUMN TERM	SPRING TERM	SUMMER TERM
	Technical Drawing Orthographic Projection Students will apply the different technical lines to represent 3D objects through three 2D viewpoints. They will learn how to set out a technical drawing page correctly and how to fill in a title block. They will use these technical drawing skills using Sketch Up to put their	Sustainability and Project Planning Project Planning and Flow Diagrams Students will learn the formal elements of both creating a realistic project plan from a design brief and also using a flow diagram to ensure the different elements of a project plan flow.	Materials and Tools Working with Wood Students will learn the properties of hardwoods, softwoods and manufactured boards and the tools that are used to work with these materials. Students will apply their technical drawing and project planning skills to produce a balsa wood construction.

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	drawings onto a computer system.		
YEAR 9			
	AUTUMN TERM	SPRING TERM	SUMMER TERM
	Technical Drawing Isometric Projection Students will revisit the technical drawing skills they learnt in unit 1 of year 7 and apply them to 3D isometric projection. Students will develop the skill to interpret orthographic drawings into isometric and vice-versa. They will produce 3D technical drawings of trains and houses.	Sustainability and Project Planning Gantt Charts and Life Cycle Analysis of a system Students will develop the project planning skills from year 8 unit 2 and learn to use a Gantt chart as a project planning and management tool. They will also revisit the life cycle analysis process from year 7 unit 2 and apply this to a complex system (the UK food supply)	Materials and Tools Working with Metal Students will learn the properties of ferrous and non-ferrous alloys and the tools that are used to work with these materials. Students will apply their technical drawing and project planning skills to produce a triangular cylinder two point perspective name stand using card.
YEAR 10 NCFE Engineering			
	AUTUMN TERM	SPRING TERM	SUMMER TERM
	Unit 1, 2, 3 and start unit 4 4 Students will learn about the different sectors of Engineering, health and safety legislation, the mathematical aspects of engineering, how to interpret technical drawings and then start investigating the properties and characteristics of different materials.	Complete Unit 4, Unit 5 and Unit 6 Students complete their studies of different materials, before looking at specific tools for modifying, joining and finishing the different materials. Students will then learn the technical skills required to produce orthographic and isometric drawings to meet British Standard 8888.	Unit 7 and NEA Mock Students will apply their understanding of BS 8888 to Computer Aided Design, learning to produce designs using Autodesk Inventor. Students then will apply all their knowledge to date working on a mock Non-Examined Assessment coursework project.

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YEAR 11 NCFE Engineering

	NEA Mock In unit 1, students will finish their mock NEA coursework and receive feedback ensuring they are ready to tackle their assessed coursework piece.	NEA Project Students will complete their final assessed coursework during Unit 2. This involved research, technical drawings, computer aided design, production plan, a time building their project and completing an evaluation. The NEA contributes to 60% of the final grade.	External Written Examination Students will prepare for and complete their 1 hour 30 minute written assessment, contributing to the final 40% of their assessment grade.
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