

Design and Technology Year 9 Curriculum Overview 202223



Design Technology Curriculum Overview- Year 9 2022/2023

<p>Year 9 DT Overview</p>	<p>During Year 9 students will look at a range of different design processes associated with Engineering design. Students will look at drawing skills such as isometric, orthographic and sectional drawing, as well as an introduction to computer aided design (CAD), using these skills to enhance planning for manufacturing a range of products.</p> <p>Whilst following appropriate health and safety expectations in the workshop students will produce detailed manufacture plans, including parts and material lists, safety, industrial processes and quality control points.</p> <p>Students will develop a broad knowledge of materials, equipment, tools and processes to then manufacture their own products. They will be taught to then effectively analyse their own practical and drawing skills against existing specifications to improve their performance.</p> <p>Students will be taught to make effective design choices through core technical knowledge and understanding.</p> <p>Over the course of Key Stage 3, students will be taught the following skills and knowledge:</p> <ul style="list-style-type: none"> • The Design Cycle (including design briefs, specifications and user requirements) • Analysis and Research (including industrial process, materials and the law) • Presenting design ideas (including a range of techniques, British Standards and Computer Aided Design) • Manufacturing (including production plans, safe working practices, use of tools and machinery and evaluation)
----------------------------------	--

Week Number	Themes/ Topics	Key Knowledge & Skills	Key Assessments
-------------	----------------	------------------------	-----------------

Design and Technology Year 9 Curriculum Overview 202223

1-6 (Autumn 1)	Bauhaus Lighting	<ul style="list-style-type: none"> • Research • Isometric • Thick and thin • Rendering using pencil crayon 	<ul style="list-style-type: none"> • Year 9 baseline test
7-13 (Autumn 2)	Bauhaus Lighting	<ul style="list-style-type: none"> • Intro to CAD • Sectional drawing with detailed annotation • Orthographic with BS dimensioning • Nets and Making card model of Bauhaus lamp (3 lessons) 	<ul style="list-style-type: none"> • Ideas for lamp in isometric • Final manufacture of Bauhaus lamp
14-18 (Spring 1)	ECO Speaker	<ul style="list-style-type: none"> • Analysis of brief • (Specification and design isometric and orthographic given to students) • Use of jigs and templates • Gantt chart 	<ul style="list-style-type: none"> • Risk assessments • Production plan
19-24 (Spring 2)	ECO Speaker	<ul style="list-style-type: none"> • Rendered ideas (using pencil crayon) • Final development using isometric, rendering and annotation • Production plan, including Materials, Processes, Safety, QC and how it would be made in industry • Orthographic of mobile phone 	<ul style="list-style-type: none"> • Developed design idea
25-30 (Summer 1)	ECO Speaker	<ul style="list-style-type: none"> • Templates • Manufacturing • Diary of manufacture, including safety and QC • Evaluation against Specification • Suggestions for improvement • Strengths and weakness of own performance 	<ul style="list-style-type: none"> • Final evaluation
31-38 (Summer 2)	Remote Disassembly	<ul style="list-style-type: none"> • ACCESSFM • Summary of research 	<ul style="list-style-type: none"> • Disassembly - teacher observation

Design and Technology Year 9 Curriculum Overview 202223



		<ul style="list-style-type: none">• Disassembly• Diary of disassembly• Summary of findings from disassembly	<ul style="list-style-type: none">• End of year exam
--	--	---	--