



Curriculum map – Design & Technology Y8

YEAR 8	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
TOPIC(s)	Clock Project Analysis Research – Polymers/ Products	Clock Project Repeat Autumn 1 with different classes.	Clock Project Specifications Design Development	Clock Project Repeat Spring 1 with different classes.	Clock Project Manufacturing including CAD/CAM Evaluation.	Clock Project Repeat Summer 1 with different classes.
What students will know	Difference between thermosetting and Thermoforming plastics including their properties, impact on the environment and polymer structure.		Students will know a range of different presentation methods and techniques, including isometric and orthographic projection. They will also be able to identify software packages used for CAD drawings.		Students will know how to select appropriate tools and equipment to make a carcass. They will incorporate screws with pilot holes and countersinking. Students join using screws and nails. Students will work within a tolerance.	
What students will be able to do	Analyse texts, products and design problems and use their findings to influence designs that are suitable for a range of different users.		Will be able to present their own ideas using a range of drawing and rendering techniques as well as the use of CAD		Students will be able to identify and use the correct tools and equipment including CAD/CAM to manufacture their clock designs accurately.	

YEAR 8	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
Assessment	<p>Combination of formative self and peer, teacher led assessment activities.</p> <p>Self-assessment- task analysis + HPL + polymer questions in booklets (23 marks)</p> <p>Summative end of unit assessment against Research/Analysis descriptors (Teacher & Self Assessed) Assessment framework</p>		<p>Combination of formative self and peer, teacher led assessment activities.</p> <p>Self-assessment of design criteria + HPL+ Self/peer-assessment of design ideas and developed ideas in booklets</p> <p>Summative end of unit design assessment against design descriptors framework (Teacher & Self Assessed)</p>		<p>Combination of formative self and peer, teacher led assessment activities.</p> <p>Self-assessment- task planning + HPL + Self-assessment of evaluation</p> <p>Summative end of unit assessment of practical work against manufacturing descriptors framework (Teacher & Self Assessed)</p>	
Tier 3 vocabulary	<p>Environment, Sustainability Thermoplastic, Thermosetting Plastic Monomer, Polymer, Climate Change</p>		<p>Criteria, Specification Sketching, Influence Development, Annotation Computer Aided Design (CAD) Horizontal, Vertical</p>		<p>Industrial, Processes Countersink Medium Density Fibreboard Vectorise, Contour, programming Accuracy, Tolerance Quality Control Modifications</p>	
Extended reading opportunities	<p>Design process Plastics poster Crude oil to plastics</p>		<p>CAD/CAM</p>		<p>Machinery and equipment</p>	
Beyond the classroom (Wider reading / Trips)	<p>Industrial clock manufacture</p>		<p>3D printed clock</p>		<p>Wooden joining techniques</p>	