

Long Term Plan: Design and Technology Year 8

Term	Unit title	Key knowledge/ Content to learn and retain	Essential skills to acquire (subject & generic)	Link to subject ethos and driver (rename)	Anticipated misconceptions	Links to previous KS	Links to future KS	Opportunity for stretch for high prior attainers	SMSC & British Values	Cultural Capital	Career Link
One	Making a Memory Box	The design, make, evaluate cycle The use of CAD/CAM Properties of Softwoods and Hardwoods	Designing a product for an intended user Accurate measuring and cutting Tennon Saw Skills		The difference between CAD and CAM Students may confuse “hard” with “strong” and “ductile” with “malleable”	Students will have explored various common resistant materials as part of the upper KS2 programme of study, as well as simple electrical circuits. In Year 7, students practiced the design, make, evaluate cycle; as well as an introduction to material properties	As a fundamental introductory course, the key stage three programme of study lays the foundation for future study of either a Design and Technology or Engineering qualification at GCSE	Consider different materials that could be used for the casing of their speaker and justify the uses of the material chosen	Different products for different target clients, including potential users from all backgrounds and how this affects their needs	Exploration of different designers and materials that students may not have encountered before	As an introductory course, the KS3 technology programme of study lays the foundations for a wide range of STEM field careers.
Two	Making a Speaker	Properties of common materials	Interpret circuit diagrams Accurate and		The difference between a battery and a cell.	Students will have explored various common	As a fundamental introductory course, the	Explain the function of each component in	Different products for different target clients,	Exploration of different designers and materials that	As an introductory course, the KS3

		<p>Common electronic components</p> <p>Drawing circuit diagrams</p> <p>The use of solder and a soldering iron</p> <p>The use of different components within a circuit</p>	<p>safe use of a soldering iron</p> <p>Evaluating products against a given criteria</p>		<p>The circuit diagrams of a number of components are similar and easy to confuse so will require explicit teaching and practice</p>	<p>resistant materials as part of the upper KS2 programme of study, as well as simple electrical circuits.</p> <p>In Year 7, students practiced the design, make, evaluate cycle; as well as an introduction to material properties</p>	<p>key stage three programme of study lays the foundation for future study of either a Design and Technology or Engineering qualification at GCSE</p>	<p>their speakers circuit; and suggest what impact it may have if one was not working correctly</p>	<p>including potential users from all backgrounds and how this affects their needs</p>	<p>students may not have encountered before</p>	<p>technology programme of study lays the foundations for a wide range of STEM field careers.</p>
<p>As a rotation subject at KS3, Design and Technology is taught for 2 full terms, before students rotate into another technology subject.</p>											