

Long Term Plan: Design and Technology Year 8

Half term	Unit title	Key knowledge/ Content to learn and retain	Essential skills to acquire (subject & generic)	Link to subject ethos and driver (rename)	Anticipated misconcepti ons	Links to previous KS	Links to future KS	Opportunity for stretch for high prior attainers	SMSC & British Values	Cultural Capital	Career Link
One	Designing a Speaker	The design, make, evaluate cycle The use of CAD/CAM Properties of common materials Common electronic components Drawing circuit diagrams	Designing a product for an intended user Accurate measuring and cutting		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	The use of solder and a	Interpret circuit	The difference between a	Students will have explored	As a fundamental	Explain the function of	Different products for	Exploration of different	As an introductory
		soldering iron	diagrams	battery and a	various	introductory	each	different	designers and	course, the
		-	Accurate and	cell.	common	course, the	component in	target clients,	materials that	KS3
		The use of	safe use of a		resistant	key stage	their speakers	including	students may	technology
		different	soldering iron	The circuit	materials as	three	circuit; and	potential	not have	programme of
		components		diagrams of a	part of the	programme of	suggest what	users from all	encountered	study lays the
		within a	Evaluating	number of	upper KS2	study lays the	impact it may	backgrounds	before	foundations
		circuit	products	components	programme of	foundation for	have if one	and how this		for a wide
			against a given	are similar and	study, as well	future study	was not	affects their		range of
			criteria	easy to	as simple	of either a	working	needs		STEM field
				confuse so	electrical	Design and	correctly			careers.
				will require	circuits.	Technology or				
				explicit		Engineering				
				teaching and	In Year 7,	qualification at				
				practice	students	GCSE				
					practiced the					
					design, make,					
					evaluate cycle;					
					as well as an					
					introduction					
					to material					
					properties					
As a rotation subject at KS3, Design and Technology is taught for 1 full term, before students rotate into another technology subject.										