

## Design and Technology

<b>Overview of the year:</b> This year we look at a variety of materials, their basic properties and be able to make informed decisions as to when and how they could be used. We will also look at the world of digital marketing and the work of designers. By the end of the year, students should have grasped a good knowledge base to be able to apply to a variety of practical outcomes in the lesson and for their future lives.		<b>Ways to consolidate and extend your learning in Design Technology:</b> Reading about designers past and present will help students understand where we have come from and how the world of design evolves as new technologies are found. Programs such as Grand Designs, How it's Made can provide an insight into the world of design, engineering and manufacture. Visits to the V&A museum, Design Museum and London Transport Museum will enhance what they are learning in lessons.		
<b>Half Term</b>	<b>Unit title</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Assessment</b>
1	Timber based materials pencil box (TBM)	What timber based materials are available, their properties and possible uses	Ability to identify various timber based materials and be able to apply specific examples to a practical outcome. Use of basic hand tools and some machinery for TBM. Accurate marking, measuring, cutting and abrading of material	Knowledge based assessment on wooden based materials. Practical assessment of completed product.
2	TBM pencil box	Continued project for TBM	Continued skill for TBM	TBM continued assessment
	Metal based materials (MBM) and sustainable energy boat	What MBM are available, their properties and possible uses.	Ability to identify various MBM and be able to apply specific examples to a practical outcome. Use of basic hand tools and some machinery for MBM. Accurate marking, measuring, cutting and abrading of material	Knowledge based assessment on MBM. Practical assessment of completed product.
3	MBM boat	Continued project for MBM	Continued skill for MBM	MBM continued assessment
4	Plastic based materials (PBM), designer based jewellery	What PBM are available, their properties and possible uses. Study of Louis Comfort Tiffany.	Ability to identify various PBM and be able to apply specific examples to a practical outcome. Use of basic hand tools and some machinery for PBM. Accurate marking, measuring, cutting and abrading of material. Evaluate and analyse to work of others	PBM continued assessment Knowledge based assessment on PBM and Louis Comfort Tiffany. Practical assessment of completed product.
	PBM jewellery	Continued project for PBM	Continued skill for PBM	PBM continued assessment
5	Digital advertising, Computer Aided Design (CAM) and Computer Aided Manufacture	The use of CAD and CAM in industry and the world or digital/virtual marketing and prototyping	To be able to identify a variety of CAD and CAM options available. Use of CAD for the purposes of digital/virtual marketing and prototyping	Knowledge based assessment on CAD/CAM in industry. Practical assessment of digital outcome
	Digital advertising, CAD and CAM	Continued project for CAD, CAM and digital advertising	Continued skill set for Digital advertising and Computer Aided Design (CAM)	End of year assessment on years knowledge