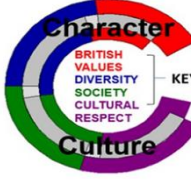


DESIGN AND TECHNOLOGY

LINK – R:\Teaching\Creative (Gabor)\Tech MDH\ - CURRICULUM INTENT\Y9\1 Engineering Design\2 - Trinket box (New 2023)

YEAR 9 – RM Unit (KS3) – Trinket Box – (8 weeks or 10 weeks)																		
INTENT: To play a part in developing knowledge and understanding of the Design and Technology National Curriculum. Students are to... manufacture a trinket box using the material medium density fibre board (MDF). The box will be constructed using a 20mm comb joint in 6mm MDF.				The bigger picture: This scheme plays an important role within the technology curriculum as it is essentially teaching skills from the National Curriculum and preparing students for the challenges of key stage 4. The Next Step: This unit is preparation for the Engineering Design Course at Key stage 4. It focusses predominantly on Unit R108 / R040 which is based upon PLANNING and MANUFACTURE.										 <p>* Link to C&C</p>		Character & Culture Character and Culture is embedded within the curriculum map and coded as shown.		
Lesson		British Values		Diversity								Society				Society Design and Technology can lead to many careers in society. An example of this is within the STEM routes.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14			
Retrieval Task:		Health and Safety		FUNCTION		INNOVATION		KEY TERMS		DISCUSS		INSPIRATION		JOBS		CROSS CURRICULAR LINKS: <ul style="list-style-type: none"> Art: Within this unit students will develop their 3D drawing skills and making skills which will benefit the art curriculum. ICT: This unit will give students an understanding of how you can design in 3D using CAD/CAM 		
Objective: I do, we do & you do...		Health and safety	Marking out 2	Comb joint 1	Comb joint 2	Comb joint 3	Comb joint 4	Extra parts 1	Extra parts 2	Extra parts 3	Extra parts 4	Construction 1	Construct 2	Construct 3	Construct 4			LESSON STRUCTURE: <ul style="list-style-type: none"> ALL lessons will use the whole school strategy I DO, WE DO, YOU DO ALL lessons will have a retrieval task that engages learners immediately after arrival. In practical settings this may not use a PowerPoint. All lessons will have a period of SILENT STUDY. All lessons will have Learning objectives visible.
		Design Brief	Start cutting comb joints.	Cut the comb joint with a coping saw and engineering vice			Gluing	Drilling and										
Silent Study:		B M E	B M E	B M E	B M E	B M E	B M E	B M E	B M E	B M E	B M E	B M E	B M E	B M E	B M E	B M E	(TOPIC SHEET INFORMATION) WHAT SKILLS WILL BE DEVELOPED: <ul style="list-style-type: none"> To be able to understand, apply and create using computer aided design. WHY WE ARE LEARNING THIS: <ul style="list-style-type: none"> To apply the use of Computer Aided Design into your designing. To create a range of your own unique designs that include detailed logos, an isometric house and a Google Sketch Up animation. HOW TO BECOME AN EXPERT IN THIS TOPIC: <ul style="list-style-type: none"> Watch this YouTube clip to stretch yourself - Techsoft 2D Design V2: Images Skills Tutorial Read this book from Amazon - 100 CAD Exercises! Learn to design 2D and 3D Models by Practicing with these 100 CAD Exercises! Kindle Edition Practice the software 2D design and Google Sketchup in the library at lunch or after school. 	
Assessment				FAR 1								FAR 2		INPUT GRADES				
Homework		TEAMS INTERACTIVE						TEAMS INTERACTIVE										
Key Vocab		2D Design software, google SketchUp, dimension, vectorise, bitmap, explode, user requirements, 3 dimensions, 2 dimensions, laser cutter, plot, accuracy, precision, professional, health and safety.																
Connected Knowledge		This is a unit designed to... prepare students for the future of design and technology at Bilton School as having CAD/CAM skills is a priority and plays a big part of the future curriculum. Following this it supports the journey into KS4 and 6th form Art and Design. Across the school this supports the Art, ICT and Business departments as these skills are transferable and are beneficial in the curriculum plan. Beyond school , the world of work is becoming more increasingly automated, and we are in an area of the country with a huge amount of engineering companies and potential future jobs. CAD/CAM is a perfect steppingstone to further education, apprenticeships and university.																
IMPACT		Students measure progress using the department <u>F.A.R tracking sheets</u> which are in the <u>Assessment Booklets</u> , Teachers track the marks given using the <u>department shared mark book</u> and SIMS. This will show progress over time and prepare students for future learning at Bilton School.																