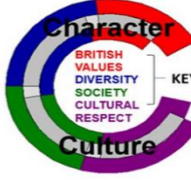


DESIGN AND TECHNOLOGY

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)																		
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						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14				
Retrieval Task:	Health and Safety		FUNCTION		INNOVATION		KEY TERMS		KEY TERMS & Literacy		INSPIRATION		JOBS					
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				
	Design Brief	Start cutting comb joints.	Cut the comb joint with a coping saw and engineering vice			Gluing	Drilling and	Introduce – Extension 1 – phone holder		Introduce – Extensions 2 and 3 – mini trinket and magicians' box		Introduce – Extension 4 – Dovetail joint trial						
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				
Assessment			FAR 1								FAR 2		INPUT GRADES					
Homework	TEAMS INTERACTIVE						TEAMS INTERACTIVE						End of year assessment - QUIZZIZ					
Literacy	2D Design software, google SketchUp, dimension, vectorise, bitmap, explode, user requirements, 3 dimensions, 2 dimensions, laser cutter, plot, accuracy, precision, professional, health and safety.																	
Cultural Capital	Appreciating Craftsmanship: Woodworking projects fit within year 7,8 and 9 curriculum plans, creating a memo-pad, a lamp, a pin-ball mechanical toy and a trinket box. Learning traditional and modern woodworking techniques gives students essential hands-on skills and context, supporting the vision of cultural capital as key reference points for all children.																	
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 F.A.R tracking sheets which are in the Assessment Booklets . Teachers track the marks given using the department shared mark book and SIMS. This will show progress over time and prepare students for future learning at Bilton School.																	

CROSS CURRICULAR LINKS:

- 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

LESSON STRUCTURE:

- 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.

WHAT SKILLS WILL BE DEVELOPED:
To understand, apply and create using woodworking skills.

WHY WE ARE LEARNING THIS:

- To understand how to use tools and equipment safely.
- To become accurate and precise when working with the materials (wood and plastic)
- To create your own unique design when making a desk tidy.

HOW TO BECOME AN EXPERT IN THIS TOPIC:

- Watch this YouTube clip to stretch yourself – [Woodworking for Beginners 04 - Finger \(Box\) joints – YouTube](#)
- Read this book from Amazon - **All New Woodworking for Kids by Kevin McGuire**.
- Practice marking and cutting out wood by finding a project/plans online to make a product such as a bird box.