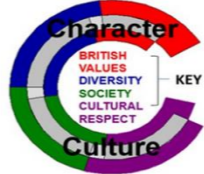










# DESIGN AND TECHNOLOGY

LINK: [R:\Teaching\Creative \(Gabor\)\Tech MDH\ CURRICULUM INTENT\Y8\5 - CAD Advanced \(2023-24\)](R:\Teaching\Creative (Gabor)\Tech MDH\ CURRICULUM INTENT\Y8\5 - CAD Advanced (2023-24))

YEAR 8 – CAD Intermediate Unit (KS3) – 8 weeks										
<b>INTENT:</b> To play a part in developing knowledge and understanding of the Design and Technology National Curriculum. <b>Students are to...</b> To <u>understand</u> , <u>apply</u> and <u>create</u> using the software 2D design as a designing tool.		<b>The bigger picture:</b> 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. <b>The Next Step:</b> This unit is preparation for the Engineering Design Course at Key stage 4. It focusses predominantly on Unit R107 / R039 which is based upon designing ideas using CAD Software.							 <p>* Link to C&amp;C</p>	<b>Character &amp; Culture</b> Character and Culture is embedded within the curriculum map and coded as shown.
Lesson	 British Values	 Diversity					 Society			<b>Society</b> Design and Technology can lead to many careers in society. An example of this is within the <b>STEM</b> routes.
Retrieval Task:	1 PURPOSE	2 FUNCTION	3 INNOVATION	4 KEY TERMS	5 DISCUSS	6 INSPIRATION	7 JOBS	8 ROTATIONS	<b>CROSS CURRICULAR LINKS:</b> <ul style="list-style-type: none"> <li><b>Art:</b> Within this unit students will develop their 3D drawing skills and making skills which will benefit the art curriculum.</li> <li><b>ICT:</b> This unit will give students an understanding of how you can design in 3D using CAD/CAM</li> </ul>	
Objective: I do, we do & you do...	Wheel 1	Wheel 2	Wheel 3	Interior 1	Interior 2	Interior 3	Car 1	Car 2		<b>LESSON STRUCTURE:</b> <ul style="list-style-type: none"> <li>ALL lessons will use the whole school strategy I DO, WE DO, YOU DO</li> <li>ALL lessons will have a retrieval task that engages learners immediately after arrival. In practical settings this may not use a PowerPoint.</li> <li>All lessons will have a period of SILENT STUDY.</li> <li>All lessons will have Learning objectives visible.</li> </ul>
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	(TOPIC SHEET INFORMATION) <b>WHAT SKILLS WILL BE DEVELOPED:</b> <ul style="list-style-type: none"> <li>To <u>understand</u>, <u>apply</u> and <u>create</u> using the software 2D design as a designing tool.</li> </ul> <b>WHY WE ARE LEARNING THIS:</b> <ul style="list-style-type: none"> <li>To understand how to use the more advanced commands in 2D Design.</li> <li>To create a range of your own unique designs that include rotating a wheel, 3D tools interior design and Car Design.</li> </ul> <b>HOW TO BECOME AN EXPERT IN THIS TOPIC:</b> <ol style="list-style-type: none"> <li>Watch this YouTube clip to stretch yourself – Cool House Interior Design Features You Won't Believe Exist</li> <li>Read this book from Amazon - <b>The Inventors Manual: Transform Your Idea into a Top-Selling Product</b> - By <a href="#">Sean Michael Ragan</a> - £10.49</li> <li>Practice the software 2D design and Google Sketchup in the library at lunch or after school.</li> </ol>	
Assessment		FAR 1				FAR 2	INPUT GRADES			
Homework	TEAMS INTERACTIVE			TEAMS INTERACTIVE						
<b>Literacy:</b> 2 for 2 3 for 3	2 for 2 and 3 for 3 – Within the unit of work teachers use educational and subject specific key literacy. <u>Key Vocab</u> 2D Design software, google SketchUp, dimension, vectorise, bitmap, explode, user requirements, 3 dimensions, 2 dimensions, laser cutter, plot, accuracy, precision, professional, health and safety. <u>words and key pictures</u> – Each unit of work has a handout including all key terms, words, tools and materials.									
Connected Knowledge	<b>This is a unit designed to...</b> 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. <b>Across the school</b> this supports the Art, ICT and Business departments as these skills are transferable and are beneficial in the curriculum plan. <b>Beyond school</b> , 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.									
<b>IMPACT</b>	Students measure progress using the department F.A.R tracking sheets 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.									