



SUBJECT: Curriculum Overview

Year 9

7 Week Carou sel	Topic studied	What will I learn?	How will I be assessed?
Year 9	Engineeri ng	Project: Metal Coat Hook • Metals (Ferrous/non-ferrous) • Heat treatment (Normalising/annealing/hardening/ quenching) • Measuring/Marking • Drilling • Cold working • Joining – threaded Fasteners/Brazing/welding/solderi ng (soft & hard) • Surface finishing (electroplating, galvanising, dip coating, polishing, painting, anodising) • Calculating percentage waste	Workshop assessment activities: • Metalwork project e.g. Key hook project Classwork/Homewor k assessment: • Research tasks with written answers • Engineering maths Testing and evaluation tasks

Year 9	Food:	• <i>Nutrients</i> • <i>Nutritional needs and Health</i> • <i>Cooking of food and heat transfer</i> • <i>Functional and Chemical properties of food</i> • <i>Food spoilage and contamination</i> <i>Principles of food safety</i>	• <i>Cooking dishes that are relevant to the topics being taught in theory sessions.</i> • <i>Test at the end of topics</i> • <i>Homework/classwork marking at least twice per half term.</i> • <i>Verbal feedback</i> • <i>Assessment method for progress. Checks/reports – overall grade based on all current classwork and homework.</i> • <i>End of topic tests will be set – this will be on Food Nutrition and Health</i> <i>Food Science and Food Safety</i>
Year 9	Design and Technology:	<i>The key skills students will gain when designing and making are as follows:</i> • <i>To demonstrate the ability to effectively analyse a brief using an appropriate range of keywords/terms.</i> • <i>To develop the ability to investigate and analyse a product.</i> • <i>To demonstrate the ability to write an effective specification using an</i>	<i>What skills/knowledge will be assessed at the end of the unit?</i> <i>Clock project</i> • <i>Self-assessment</i> • <i>Verbal Feedback</i>

		appropriate range of keywords/terms. • To evidence planning via freehand sketching, isometric and perspective • To understand the purpose of prototypes and the appropriate materials to use • To demonstrate exploded diagrams and orthographic drawing • To demonstrate the ability to plan effectively to produce a quality design outcome. • To demonstrate the ability of using a CAD program to produce the components required to produce their product. • To show a good understanding of the advantages and disadvantages of using CAD/CAM • To demonstrate a good understanding of precision and accuracy • To show good ability of using a range of tools and equipment • To demonstrate good H& S and practical skills when undertaking manufacturing tasks • To demonstrate good practical skills when assembling their product. • To develop the ability to assess and evaluate their product using appropriate key words and technical language. To demonstrate how their final concept could be manufactured in industry.	• Peer assessment • Checklists on tasks in booklet • Success criteria in booklet • Three pieces of stamped work for students per term to respond too – Two graded – Research, Design development grade, Theory, Make grade, Final evaluation grade in booklet
--	--	---	--

Students rotate around a carousel so that they study each D&T subject for approximately 7 Weeks

