



Intent	Implementation	Carousel 1 (9 weeks)	Carousel 2 (9 weeks)	Carousel 3 (9 weeks)	Carousel 4 (9 weeks)
Clarity around knowledge	Theme / topic	Engineering – Intro to Technical Drawing	Healthy Eating/ Lifestyles To be completed by KMA on return from maternity leave.	Materials Projects (Product Design): Introduction to Resistant Materials (Wood, Metal & Plastic)	Sustainable Cafe To be completed by KMA on return from maternity leave.
	Key substantive knowledge	<ul style="list-style-type: none"> Introduction to and understanding of Sketching ‘freehand drawing’ or drawing without using tools or equipment. Introduction to sketching complex shapes, a box or series of boxes can be used as a guide - <u>crating</u> or <u>wire-frame</u> drawing. Oblique drawing - Introduction to drawing in isometric, technical equipment - 30/60 degree set squares and isometric grid paper. Gain an understanding and confidence using, Orthographic drawing techniques Gain knowledge of scale and how it influences drawings Gain an understanding of the nature of tone using highlighting & low-lighting techniques. To combine all principals of technical drawing to draw effectively and quickly to rapidly generate design ideas. 	<ul style="list-style-type: none"> To handle different equipment safely and correctly, including cutting techniques. To develop a range of different cooking skills including using the oven/hob. Planning and preparing dishes and menu’s Create creative ideas to inspire their product/dishes Literacy skills in using descriptive words to describe a product/dish/menu Numeracy skills in weighing out ingredients 	<ul style="list-style-type: none"> To design and produce usable products made of WOOD, PLASTIC & METAL to a high standard aimed at specific Target Markets To learn how to use various basic hand tools and equipment safely in the workshop Introduction to CAD & CAM To learn and understand the design and manufacturing processes using Resistant Materials Introduction to using specific hand tools when using a variety of Resistant Materials – Wood, Metal & Plastic. Gain an understanding of wood, metal & plastic, their origins, and properties 	
	Disciplinary knowledge	<ul style="list-style-type: none"> Gain an understanding of 3D surroundings in terms of space. Students learn to present ideas quickly and accurately. <u>Freehand Sketching</u> - putting ideas down on paper quickly. Sketching two-dimensional (2D) or three-dimensional (3D). Students gain architectural/industrial drawing 	<ul style="list-style-type: none"> To create a range of ideas, which will inspire the products they decide to make. To learn about ‘8 tips to a healthy diet’. To learn about different nutrients and vitamins our body needs. To learn how to make healthy nutritious meals and snacks, including, fajitas, sweet and sour chicken, soup, 	<ul style="list-style-type: none"> To design packaging considering typography and layout To learn and understand Plastic Forming processes. To Learn how Blister Packaging can enhance products for Point of Sale To fully understand the differences between Vector and Bitmap graphical images 	

		<p>techniques by present precisely and accurately Front, Side & Plan View, using 3rd angle projection</p> <ul style="list-style-type: none"> To construct 3 dimensional objects using 1- 2- & 3-point perspective. 	<p>cheesecake and chocolate muffins and fairy cakes.</p> <ul style="list-style-type: none"> To learn how to make pizza, including making the bread. To learn about food labelling; traffic light code, use by and best before date and what is required by law. <p>To learn about seasonal and local produce.</p>		
Clarity around sequencing	Main links across the curriculum	This scheme is an introduction to basic technical drawing and offers a foundation for all design and make schemes. Engineering drawing is revisited and further studied in year 9 - Formal Drawing - Plug me in Project		Production processes, use of tools, machines and CAD/CAM are all interlinked through focussed practical tasks: Year 7 - Materials Project, Year 8 – Hold It Project.	
	Authentic cross curricular links	Art & ICT		Enterprise, Business Studies & ICT	
Vocabulary	Key words	Crating, Sketching, Wire – Frame & 3D drawing, Isometric, Enhancement, Thick/Thin Line Technique		Aesthetics, Jelutong, Target Market, Filing, Sanding, typography, Vacuum Forming, Blister Packaging, Point of Sale, Vector, Bitmap, Pixilation, Co-ordinates, Plastic (Polymers), Thermoplastic Thermosets, Elastomers	
Assessment	Summative assessment	<p><u>Design Assignment:</u></p> <p>Formative Assessment Throughout: <u>The Design Process</u> will be assessed throughout the project (Theory booklet).</p> <p>Summative Assessment: 1 x end of project test/assessment</p>		<p><u>Focussed Practical Task:</u></p> <p>Formative Assessment Throughout: Making/Manufacturing Outcome</p> <p>Summative Assessment: 1 x end of project test/assessment</p>	
Links to the real world / careers / PD		Engineering drawing and draftmanship, The Built Environment and Architecture.		Industrial design and manufacturing processes discovered and practiced using real time design briefs.	