

Year 8 Design and Technology Curriculum Map

(Please note that lower school Design and Technology lessons are taught in a termly rotation)

	Project	What will I learn?
Term 1	Product Design – Mobile Phone Holder	<ul style="list-style-type: none"> • About the development of products and their evolution (focusing on MB phones) whilst considering Technology Push and Market Pull. • How to conduct a detailed product analysis of a similar product in order to learn from it. • In group work students will extend their creativity in order to design products of the future • How to write a detailed and specific specification in order to test the end final product that has been made • About test nets (including suitability of materials and health and safety aspects whilst experimenting) • Brand identity and creating an iconic logo • Extending functions of CAD software (Illustrator and 2D design) • Signs and symbols relating to packaging in order to inform the customer • About different stages of the development of ideas whilst evaluating against the specification and 3rd party opinion • Will research different styles of instruction manuals and their advantages and disadvantages • Will investigate into CAD/CAM in industry and how products are made, For example 3D printing • Will research iconic designers in order to gain a greater understanding of past, present designs/designers.
Term 2	Food Technology – Food Around the World	<ul style="list-style-type: none"> • Health and safety in the kitchen • Basic food hygiene • types of contamination • cross contamination • Eatwell guide • Seasonal foods • Staple foods • Food miles • Preparing vegetables, grating, sautéing, cooking with cream, using the hob (Pasta carbonara) • Preparing vegetables, balancing flavours, using the hob (Vegetable chow mein) • Creaming method, preparing fruit, weighing accurately, lining cake tin, using the oven (Dutch apple cake) • Preparing vegetables, sautéing, balancing flavours, cooking with meat (Bolognese) • Preparing vegetables, sautéing, measuring accurately, cooking rice, balancing flavours (Savoury rice) • Preparing vegetables and meat, sautéing, check chicken is cooked properly, balancing flavours (Chicken curry) • Making Pizza dough, kneading, shaping Pizza, using the oven, (Pizza) • Adapting recipes to add texture and flavour. • Design packaging • Key words
Term 3	Product Design – Mobile Phone Packaging	<ul style="list-style-type: none"> • Health and Safety in the workshop • Scale/units of measurements • Product analysis – considering, function, target audiences and materials • Environmental and sustainability issues • Recording results from questionnaires in order to collect useful and relevant information to help influence the design of products

		<ul style="list-style-type: none">• To write a specification for a new product whilst considering results of research.• Introduction to CAD/CAM (2Design, Flexi CAD, Laser cutter)• Different scales of production (one off, batch and mass)• Introduction to orthographic drawing• How to produce a card model of a design in order to test the limitations of a design• Developing accuracy when drawing in 3D• To plan the manufacture of a practical product (Mobile Holder – wooden box, acrylic holder and electronic circuit) using a flow chart whilst considering Quality Control• Understanding simple circuits, standard components and their uses• Developing accuracy with hand tools and learning how to solder effectively to create a circuit board to be used in the end practical product• To identify the differences between schematic and realistic circuits• To evaluate products against their specification in order to identify and justify the need for improvements• To build upon knowledge of materials (Plastics – Thermosetting Plastic and Thermoplastics)
--	--	---