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 (workshop) Storage Box	• Analysing a context • 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) • Extending functions of CAD software (Illustrator and 2D design) • • About different stages of the development of ideas whist 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	• 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 (CAD) Lighting	• 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 • 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 whist 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)