Year 7 Design and Technology 'Inspire' Curriculum Map – 2022-23

In the Design and Technology department, we aim to keep our curriculum fluid and open to change. This enables an open dialogue and continual reflection on content to ensure we deliver a valuable programme of study.

The actual sequence of delivery will vary due to resourcing and or timetabling. By the year end all planned activities will have been covered.

Year 7	**Introduction to the World of Technology**	**Designing for others – Celebration Mug**	**Problem solving – Letter Puzzle**	**Electronic control – LED Night Light**
Knowledge	The world of Design and Technology. Why product design changes – consumer/cultural needs. Iterative Design as a process. Core knowledge of materials: • Wood • Metal • Polymers • Textiles • Papers and boards Key Designers as an influence over design. How to create design pages.	<u>Design and Make challenge</u> Drawing techniques – solid shapes. Design a celebration mug and suitable packaging for a target user. Material properties of papers and boards. Sublimation printing. How marketing influences consumers.	<u>Design and Make Challenge</u> How to write a design brief. The Iterative Design Process. How to write a specification. Who is a client and user – what are their needs? Design a product using designer influence as inspiration. Material properties of wood and polymers. Industrial processes – Vacuum forming. Health and Safety in the workshop Joining materials. Key Designer – Memphis Design.	<u>Design and Make Challenge</u> Systems approach to solving problems. Core knowledge of components: • Resistors • PCBs • LEDs • Micro switches • Power sources Electronic soldering. Industrial processes - Line bending/strip heating. Creative designs to enhance the aesthetic appearance of a product.
Skills	• Evaluative comments regarding product design. • Able to assign materials to products. • Drawing skills – 3D objects.	• Drawing techniques. • Cutting and shaping card. • Using craft knives.	• Using 2D design. • Card modelling. • Cutting and shaping a piece of wood. • Use of the sander. • Vacuum forming.	• Electronic soldering. • Fault finding. • Cutting and shaping acrylic. • Line bending. • Using 2D design.

Outside of lessons we also encourage pupils to attend our *'making club'* which provides further opportunities to develop their making skills and knowledge of materials, processes, tools and equipment.