Design and Technology Progression Plan Years 1 – 6

Aspect	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Textiles	Cut out shapes from a range of fabrics and papers.	Join fabrics using running stitch, glue, staples, oversewing and tape.	Create a simple pattern for a design. Join fabrics using a running stitch.	Using a simple pattern to create a product.	Create a 3D product using a range of materials and sewing techniques.	Combine fabrics to make a product of high quality.
Structures	Build simple structures	Make structures stronger, stiffer and more stable.	Create a shell or frame structure using diagonal struts to strengthen.	Build frame and shell structures, showing awareness of how to strengthen, stiffen and reinforce.	Build a framework using a range of materials to support mechanisms.	Select most appropriate materials and framework for different structures.
Mechanisms	Use wheels, axles, levers or sliders.	Create and use wheels and axles, levers or sliders.	Create and use simple gears, pulleys, cams, levers or linkages.	Use pulleys, levers and linkages in their products.	Use cams or gears in their products.	Select most appropriate mechanical system for a particular purpose.
Electricity				Build models incorporating motors.	Build models, incorporating switches to turn on and off.	Design products incorporating the most appropriate electrical systems.
Cooking and Nutrition	*Measure using non-standard measures. (Spoons and cups) *Identify the main food groups, including fruit and vegetables. *Identify the source of common foods.	*Cut, peel, grate and chop a range of ingredients to make different dishes. *Recognise the need for a variety of foods in a diet. *Explain where the food they eat comes from.	*Combine a variety of ingredients using a range of cooking techniques. *Describe what a balanced diet is. *Identify food which comes from the UK and other countries around the world.	*Measure and weigh ingredients to prepare and cook a range of savoury dishes. *Make healthy eating choices and explain why. *Explain some of the processes that foods go through to preserve/make them more appealing.	*Combine food ingredients appropriately. *Evaluate meals and consider if they contribute towards a balanced diet. *Explain what times of year particular foods are in season.	*Use appropriate tools and equipment, weigh and measure with scales. *Plan how they can have a healthy/affordable diet. Understand and apply the principles of a healthy varied diet. *Explain how ingredients are grown, reared, caught and processed.
Digital World				With support, create a physical product that meets the design criteria.	Use a Crumble to create a product that meets the design criteria.	Create a program to control a physical computing project, that meets the design criteria.

Design and Technology Progression Plan Years 1 – 6

Aspect	Year 1/2	Year 3/4		Year 5/6	
Existing product evaluation	Investigate a range of existing products and saying how it works and if they do what they are supposed to do.	Investigate the design features of familiar existing products and say how they are useful to the user.		Explain the form and function of familiar existing products.	
Design	Draw a simple picture of an intended design with basic labelling, based on a design criteria.	Share ideas through words, labelled sketches and models, recognising if the design is fit for purpose and the user.		Use various sources of information, clarifying/sharing ideas through discussion, labelled sketches, cross-sectional diagrams, prototypes and pattern, recognising that ideas have to meet a range of needs.	
Design (Using a Computer programme)		Use computing programmes (for example, TinkerCAD) to create alternatives for an initial design.		Independently, select and use a computing programme to design, label and create. Apply understanding of computing to program, monitor and control their product.	
Working from plans	With help, put ideas into practice.	Make realistic plans, identifying processes, equipment and materials, reflecting on designs as the product develops.		Check work as it develops and modify their approach in the light of progress.	
Evaluate	Explain how closely, finished products meet their design criteria and say what they could do better in the future.	Identify what has worked well and what could be improved, evidencing and explaining the results of research.		Test and evaluate products against a detailed design specification and make adaptations as they develop the product.	
History and Culture			Explain the impact of a design or designer on design history and how this has helped to shape the world.	Create a timeline to sequence the development of a design over time and describe how technology has influenced it.	Describe how an individual in the field of design and technology has helped shape the world.