

Progression in Design Technology

		Milestone 1 (By end of YR)	Milestone 2 (By end of Y2)	Milestone 3 (By end of Y4)
To master practical skills	Food	• Peel by hand e.g. a satsuma or banana. • Mix/stir to loosely combine ingredients. • Spoon ingredients between containers. • Measure using a spoon, e.g. dried herbs, dried fruit. • Use a rolling pin. • Use small kitchen equipment (knives and scissors) with control.	• Cut, peel or grate ingredients safely and hygienically • Measure or weigh using measuring cups or electronic scales. • Assemble or cook ingredients.	• Prepare ingredients hygienically using appropriate utensils. • Measure ingredients to the nearest gram accurately. • Follow a recipe. • Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).
	Materials	• Carry and control small equipment (scissors and tools) safely. • Cut and turn along an outline. • Hold a pencil in a tripod grip and show control. • Use large scale tools (gardening etc) safely and with control. • Know how to use range of adhesives, glue, tape, staples, safely and accurately.	• Cut materials safely using tools provided. • Measure and mark out to the nearest centimetre. • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).	• Cut materials accurately and safely by selecting appropriate tools. • Measure and mark out to the nearest millimetre. • Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). • Select appropriate joining techniques.
	Textiles	• Thread, peg and sew on card. • Begin to weave, thread and tie. • Handle small manipulatives (buttons) with control.	• Shape textiles using templates. • Join textiles using running stitch.	• Understand the need for a seam allowance. • Join textiles with appropriate stitching.

			• Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).	• Select the most appropriate techniques to decorate textiles.
	Electricals and electronics	• Know how and why we turn classroom devices on and off.	• Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).	• Create series and parallel circuits
	Computing	• Make digital drawings on an iPad.	• Model designs using software.	• Control and monitor models using software designed for this purpose.
	Construction	• Stack and align blocks of different sizes. • Join and separate small construction by clicking and twisting.	• Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.	• Choose suitable techniques to construct products or to repair items. • Strengthen materials using suitable techniques.
	Mechanics	• Stack, align and balance with magnetic joints. • Explore toys that have wheels, levers and winding mechanisms.	• Create products using levers, wheels and winding mechanisms.	• Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).
To design, make, evaluate and improve		• Explain what they are making. • Answer open ended or speculative questions. • Use language to share ideas. • Follow 3 step instructions. • Use drawing to plan a model. • Use recycled materials to build/ create with purpose.	• Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses. • Use software to design.	• Design with purpose by identifying opportunities to design. • Make products by working efficiently (such as by carefully selecting materials). • Refine work and techniques as work progresses, continually evaluating the product design.

		• Make considered choices about materials when making. • Dismantle, examine and talk about existing objects and structures.		• Use software to design and represent product designs.
To take inspiration from design throughout history		• Take an interest in existing objects and designs. • Talk about how familiar objects/products work e.g. the toy car rolls on its wheels.	• Explore objects and designs to identify likes and dislikes of the designs. • Suggest improvements to existing designs. • Explore how products have been created.	• Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. • Improve upon existing designs, giving reasons for choices. • Disassemble products to understand how they work.