Year 4 Curriculum

DT Objectives (KS2)
Throughout the year use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Investigate and analyse a range of existing products Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Understand how key events and individuals in design and technology have helped shape the world Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of computing to program, monitor and control their products. **Cooking and nutrition:** Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

	Sticky knowledge	Core Vocabulary	Final product and differentiation	Links to Curriculum Drivers
Autumn **Mechanical systems**	Know which tools to use for a particular task and show knowledge of handling the tool Know which material is	Tenon saw, vice, wire strippers, screws, nails, accurate, marking out, jointer, junior hacksaw, motor, pliers, rotary cutter, safety ruler, screwdriver, side	Making a slingshot car **Pupils with secure understanding indicated by:** Constructing the car bodies effectively. Conducting the trial	**Possibilities/ Community – Jaguar Land Rover**

	likely to give the best outcome Measure accurately.	cutters, snips, spanner, stapler, dowel, build, make, design, plan, product +KS1 vocabulary	accurately and drawing conclusions and improvements from the results. **Pupils working at greater depth indicated by:** Constructing the car bodies independently and to a high-quality finish. Testing a wider range of features of the vehicles and therefore drawing on a wider range of conclusions as to the ways their cars could be improved.	
<u>Spring</u> **Textiles**	Use ideas from other people when designing produce a plan and explain it Persevere and adapt work when original ideas do not work Communicate ideas in a range of ways, including by sketches and drawings which are annotated.	Back stich, binca, bodkin, cotton thread, cross stitch, hook and eye, loom, pinking shears, press stud, running stitch, seam allowance, sewing machine, tacking, thimble, make, design, plan, product +KS1 vocabulary	Fastenings **Pupils with secure understanding indicated by:** Their ability to assemble their case using any stitch they are comfortable with. **Pupils working at greater depth indicated by:** Their ability to assemble their case using small, neat stitches and reinforcing these where necessary.	**Possibilities – Fashion designer/ Business person - Laura Ashley**
<u>Summer</u> **Structures**	Know which tools to use for a particular task and show knowledge of handling the tool Know which material is likely to give the best outcome Measure accurately.	Tenon saw, vice, wire strippers, screws, nails, accurate, marking out, jointer, junior hacksaw, motor, pliers, rotary cutter, safety ruler, screwdriver, side cutters, snips, spanner, stapler, dowel, build, make, design, plan, product +KS1 vocabulary	Pavilions **Pupils with secure understanding indicated by:** Selecting appropriate materials and techniques to add cladding to their pavilion which clearly reflects the chosen theme and the design criteria.	**Possibilities – Architect - Serpentine Pavilion**

			Pupils working at greater depth indicated by: Experimenting with a wide range of materials and more sophisticated techniques to create and attach cladding which has strong links to the theme as well as creating the surrounding landscape.	
<u>Food technology</u>	Know how to be both hygienic and safe when using food Bring a creative element to the food product being designed.	Grams/kilograms, hygiene, ladle, millilitre/litre, spatula, temperature, whisk +KS1 vocabulary	Baking biscuits **Pupils with secure understanding indicated by:** Making a biscuit from an adapted recipe and its packaging all within budget. **Pupils working at greater depth indicated by:** Making a biscuit that has a clear target audience and has been adapted to alter its sensory characteristics. Creating packaging that compliments the biscuit design.	**Possibilities – Baker - Paul Hollywood**