



RADDLEBARN PRIMARY SCHOOL SUBJECT OVERVIEW DESIGN & TECHNOLOGY

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Context/ Resources
Nursery	<p>Throughout the year children in Nursery (3-4 year olds) will be learning to...</p> <p>PSED Select and use activities and resources, with help when needed. PSED Make healthy choices about food, drink, activity and toothbrushing. PD Use one-handed tools and equipment, for example, making snips in paper with scissors. PD Choose the right resources to carry out their plan. E.g. choosing a spade to enlarge a small hole they dug with a trowel. UW Talk about the differences between materials and changes they notice. EAD Explore different materials freely, to develop their ideas about how to use them and what to make. EAD Develop their own ideas and then decide which materials to use to express them. EAD Join different materials and explore different textures.</p>						
Reception	<p>Throughout the year children in Reception will be learning to...</p> <p>EAD Return to and build on their previous learning, refining ideas and developing their ability to represent them. EAD Create collaboratively, sharing ideas, resources and skills. PD Develop their small motor skills so that they can use a range of tools competently, safely and confidently. PD Know and talk about the different factors that support their overall health and wellbeing: regular physical activity, healthy eating. C&L Articulate their ideas and thoughts in well-formed sentences. C&L Use talk to help work out problems and organise thinking and activities.</p>						
Year 1					<p>Cooking and Nutrition</p> <p>Use basic principles of a healthy/varied diet to prepare dishes.</p> <p>Understand where food comes from.</p>	<p>Bridge making</p> <p>Design: design a purposeful and functional product based on design criteria.</p> <p>Make: Select from and use a wide range of materials and components</p> <p>Select from and use a range of tools and equipment to perform practical tasks (e.g. cutting and joining).</p>	

						<p>Evaluate: Explore a range of existing bridges.</p> <p>Evaluate your ideas against design criteria.</p> <p>Technical Knowledge: build structures, exploring how they can be stronger, stiffer and more stable.</p>	
Year 2		<p>Books with moveable parts</p> <p>Design: Generate, develop, model and communicate ideas through talking, drawing, templates & mock-ups.</p> <p>Make: Select from and use correct tools and equipment to perform practical tasks (e.g cutting, shaping, joining and finishing).</p> <p>Evaluate: Explore a range of existing products (books with movable parts).</p> <p>Evaluate their finished product against design criteria.</p> <p>Technical Knowledge:</p>					

		Explore and use mechanisms (e.g. levers, sliders, wheels etc) in their products.					
Year 3						<p>Cooking and Nutrition – savoury dish/seasonality</p> <p>Design: Understand & apply principles of healthy and varied diet.</p> <p>Understand seasonality, know where & how a variety of ingredients are grown, reared, caught & processed.</p> <p>Use research & develop design criteria to inform design of appealing product, aimed at a particular individual/group. (E.g. design a healthy meal).</p> <p>Make: Select and use wide range of ingredients.</p> <p>Prepare & cook variety predominately savoury dishes using a range cooking techniques.</p> <p>Evaluate: Investigate & analyse a range of existing products (E.g. look at food labels/ packaging/tasting food).</p> <p>Evaluate their ideas and products against their</p>	

						<p>own design criteria & consider views of others to improve their work.</p> <p>Technical Knowledge: Understand seasonality & principles of healthy diet</p>	
Year 4					<p>Architects – structures (buildings and building projects linked to our locality)</p> <p>Design: Use research and develop design criteria to inform their designs of innovative, functional and appealing products that are fit for purpose, aimed at a particular individual/group.</p> <p>Generate, develop, model and communicate ideas through discussion, annotated sketches, prototypes and computer-aided design.</p> <p>Make: <i>Select and use wide range of materials including construction materials.</i></p> <p><i>NOT JUNK MODELLING – focus on computer-aided element.</i></p> <p>Evaluate:</p>		

					<p>Understand how key events and individuals in D&T have helped shape the world.</p> <p>Technical Knowledge: Apply knowledge of how to strengthen, stiffen and reinforce complex structures.</p>		
Year 5		<p>Moveable bridges</p> <p>Design: Use research & develop design criteria to inform design of a functional product that is fit for purpose, aimed at a particular group.</p> <p>Generate, develop, model & communicate ideas through annotated sketches, cross-sectional and exploded diagrams.</p> <p>Make: Select & use wide range of materials & components according to functional properties.</p> <p>Select and use a wide range of tools and equipment to perform practical tasks accurately.</p> <p>Evaluate: Evaluate ideas and products against</p>		Generate, develop, model and communicate ideas through computer aided design (link to computing module)			

		<p>design criteria and consider views of others to improve their work.</p> <p>Technical Knowledge: Understand & use mechanical systems in their products e.g. gears, pulleys, cams, levers, linkages</p>					
Year 6		<p>Apply understanding of computing to program, monitor & control products. (Link to computing module- To create a simulation of a room in which devices can be controlled.)</p>		<p>Electrical systems – quiz cards (a machine to sound/buzz for correct/incorrect answers).</p> <p>Design: Develop design criteria to inform design of an innovative, functional and appealing product.</p> <p>Generate, develop and communicate ideas through annotated sketches and cross-sectional diagrams.</p> <p>Make: Select and use a range of tools, equipment and components.</p> <p>Evaluate: Evaluate product against design criteria.</p> <p>Technical Knowledge: Understand & use electrical systems in their products (E.g. series circuit with</p>		<p>Textiles - using pattern pieces/templates (item of clothing)</p> <p>Design: Develop design criteria to inform design of an innovative & appealing product aimed at a particular individual/group.</p> <p>Generate, develop, model & communicate ideas through annotated sketches, prototypes and pattern pieces.</p> <p>Make: Select and use wide range of tools & equipment (E.g. cutting, shaping, joining, finishing) accurately.</p> <p>Select & use range of textiles according to functional properties & aesthetic qualities.</p> <p>Evaluate: Investigate & analyse range of existing products.</p>	

				switches, bulbs, motors, buzzers).		Evaluate their ideas and products against own design criteria and consider views of others to improve their work.	
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