

Design & Technology		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Rotation 1	Winter	Cooking and nutrition: Soup In this unit, children explore the differences between fruits and vegetables using their senses (taste, texture, smell etc.). They listen to the story 'The best pumpkin soup' and discuss the key ingredients the characters used before developing a class-based vegetable soup recipe.		Structures: Junk modelling In this unit, pupils explore and learn about various types of permanent and temporary join. They are encouraged to tinker using a combination of materials and joining techniques in the junk modelling area.		Structures: Boats In this unit, children explore what is meant by 'waterproof', 'floating' and 'sinking', then experiment and make predictions with various materials to carry out a series of tests. They learn about the different features of boats and ships before investigating their shape and structures to build their own.	
		Mini Units to develop other skill areas				Main DT focus	
	Spring 1/2	Food – Cooking and nutrition: Fruit and vegetables <i>Link to Science Humans</i> Learn to distinguish between fruit and vegetables and where they grow. Design a fruit and vegetable smoothie and accompanying packaging.				Mechanisms: Wheels and axles Learn about the key parts of a wheeled vehicle, to develop an understanding of how wheels, axles and axle holders work. Design and make a moving vehicle.	
	Summer 3/4	Electrical systems: Torches <i>Link to Science Electricity</i> Identify the difference between electrical and electronic products. Evaluate a range of existing torches and their features, then develop a new functional torch design.				Mechanical systems: Pneumatic toys Explore pneumatic systems, then apply this understanding to design and make a pneumatic toy including thumbnail sketches and exploded diagrams.	
	Autumn 5/6			Electrical systems: Steady hand game <i>Link to Science recall of electricity</i> Understand what is meant by fit for purpose design and form follows function. Design and develop a steady hand game using a series circuit, including housing and backboard.		Structure: Playgrounds Research existing playground equipment and their different forms, before designing and developing a range of apparatus to meet a list of specified design criteria.	

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Rotation 2	Winter	Cooking and nutrition: Soup In this unit, children explore the differences between fruits and vegetables using their senses (taste, texture, smell etc.). They listen to the story 'The best pumpkin soup' and discuss the key ingredients the characters used before developing a class-based vegetable soup recipe.		Structures: Junk modelling In this unit, pupils explore and learn about various types of permanent and temporary join. They are encouraged to tinker using a combination of materials and joining techniques in the junk modelling area.		Structures: Boats In this unit, children explore what is meant by 'waterproof', 'floating' and 'sinking', then experiment and make predictions with various materials to carry out a series of tests. They learn about the different features of boats and ships before investigating their shape and structures to build their own.	
		Mini Units to develop other skill areas				Main DT focus	
	Spring 1/2	Cooking and nutrition: A balanced diet Learn about the food groups (carbohydrates, proteins, fruits and vegetables, dairy, oils and spreads) to understand a balanced diet to develop a healthy wrap.				Structures: Constructing a windmill Inspired by the song, 'Mouse in a windmill', design and construct a windmill for a client (mouse) to live in. Explore various types of windmill, how they work and their key features.	
	Summer 3/4	Cooking and nutrition: Eating seasonally Learn about various fruits and vegetables, and when, where and why they are grown in different seasons. Discover the relationship between colour and health benefits.				Structures: Constructing a castle Identify and learn about the key features of a castle, before designing and making a recycled-material castle (structure).	
	Autumn 5/6	Cooking and nutrition: Adapting a recipe Work in groups to adapt an existing biscuit recipe, whilst taking into account the cost of the ingredients and other expenses against a set budget.				Mechanical systems: Pop-up book Create a functional four-page pop-up storybook design, using lever, sliders, layers and spacers to create paper-based mechanisms.	