Design & Technology Whole School Breadth Overview
Knowledge Map

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Unit 1	**Cooking & Nutrition** Fruit and Vegetable Smoothie	**Cooking & Nutrition** A Balanced Diet	**Cooking & Nutrition** Eating Seasonally	**Cooking & Nutrition** Adapting a Recipe	**Cooking & Nutrition** What Could Be Healthier?	**Cooking & Nutrition** Come Dine With Me
Unit 2	**Mechanisms** Moving Storybook: Sliders Curriculum end goal: ● Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**Mechanisms** Moving Monsters Curriculum end goal: ● Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**Mechanisms** Pneumatic Toys Curriculum end goal: ● Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	**Mechanisms** Slingshot Cars Curriculum end goal: ● Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	**Mechanisms** Pop-up Books Curriculum end goal: ● Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	**Mechanisms** Automata Toys Curriculum end goal: ● Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
Unit 3	**Structures** Windmills Curriculum end goal: ● Build structures, exploring how they can be made stronger, stiffer and more stable ● Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**Structures** Baby Bear's Chair Curriculum end goal: ● Build structures, exploring how they can be made stronger, stiffer and more stable ● Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**Structures** Castles Curriculum end goal: ● Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	**Structures** Pavilions Curriculum end goal: ● Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	**Structures** Bridges Curriculum end goal: ● Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	**Structures** Playgrounds Curriculum end goal: ● Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
Unit 4	**Textiles** Puppets	**Textiles** Pouches	**Textiles** Cushions	**Textiles** Fastenings	**Textiles** Stuffed Toys	**Textiles** Waistcoats
Unit 5	**Mechanisms** Wheels and Axles Curriculum end goal: ● Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**Mechanisms** Ferris Wheels Curriculum end goal: ● Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**Electrical Systems** Static Electricity Curriculum end goal: ● Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors	**Electrical Systems** Torches Curriculum end goal: ● Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors	**Electrical Systems** Electric Greetings Cards Curriculum end goal: ● Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]	**Electrical Systems** Steady Hand Games Curriculum end goal: ● Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]

Curriculum end goal (opportunities in each unit to...):
- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology
- Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria

Food Technology
- Use basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from

Curriculum end goal (opportunities in each unit to...):
- 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

Food Technology
- Understand and apply principles of a healthy and varied diet
- Prepare and cook 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