St. George's (VC) CEP School
Design & Technology Curriculum Map 2022/2023

	Autumn	Spring	Summer
EYFS	Design and Technology can be found in the Early Years Foundation Stage within the specific area of learning: 'expressive arts and design'. Expressive arts and design involves supporting children to explore and play with a wide range of media and materials, as well as providing opportunities and encouragement for sharing their thoughts, ideas, and feelings through a variety of activities in art, music, movement, dance, role-play, and design and technology.		
EYFS	**Develop construction skills using recycled materials, construction sets such as Lego, Duplo and on a large scale** Provide lots of opportunities for children to use construction kits and use recycled materials to create models	**Encourage children to plan, design, create and reflect on ideas.** Model how to develop an idea onto paper and then how to construct it, asking questions along each process	**Children develop their creative skills further by continuing to practise and improve** Encourage children to have a 'can do' attitude and enjoy the reward of improving their skills and creations. Adult modelling of refined skills.
Year 1	**Food (Fruit & vegetables)** *Understand where food comes from **Explore and evaluate a range of existing products *Use the basic principles of a healthy and varied diet **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	**Mechanisms (Making a moving story book)** *Design purposeful, functional, appealing products for themselves and other users based on design criteria *Generate, develop, model and communicate their ideas through talking and drawing, templates, mock-ups and, where appropriate, information and communication technology *Select and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing)	**Textiles (Puppets)** **Explore and evaluate a range of existing products *Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately *Design purposeful, functional, appealing products for themselves or other users based on design criteria. *Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and

	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 *Evaluate their ideas and products against the design criteria	*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 against design criteria	communication technology *Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics *Evaluate their ideas and products against design criteria
Year 2	**Food (A balanced diet**) *Understand where food comes from *Use the basic principles of a healthy and varied diet to prepare dishes *Explore and evaluate a range of existing products *Design purposeful, functional, appealing products for themselves and other users based on design criteria *Evaluate their ideas and products against design criteria *Explore and evaluate a range of existing products	**Mechanisms (Making a moving monster**) *Explore and use mechanisms [for example, levers, sliders, wheels and axles] in their products *Explore and evaluate a range of existing products *Design purposeful, functional, appealing products for themselves and other users based on design criteria *Generate, develop, model and communicate their ideas through talking and drawing, templates, mock-ups and, where appropriate, information and communication technology *Evaluate their ideas and products against design criteria *Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	**Textiles (Pouches)** *Select from and use a range of tools and equipment to perform practical tasks *Design purposeful, functional, appealing products for themselves and other users *Select from and use a wide range of materials and components, including construction materials, textiles and ingredients according to their characteristics *Evaluate their ideas and products against a design criteria
Year 3	**Food (Eating seasonally)**	**Mechanical systems (Making pneumatic toys)**	**Electrical systems (Static electricity)**

	*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	*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 *Understand and use mechanical systems in their products, for example, gears, pulleys, cams, levers and linkages *Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	*Investigate and analyse a range of existing products *Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] *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 *Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
Year 4	**Food (Adapting a recipe)** *Use research and develop design criteria to inform	**Mechanical systems (Making a slingshot car)** *Select from and use a wider range of tools and	**Electrical systems (Torches)**

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 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	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]	*Investigate and analyse a range of existing products *Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] *Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design *Understand how key events and individuals in design and technology have helped the world *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 *Understand and use electrical systems in their products *Select from and use a wider range of tools and equipment to perform practical tasks *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 *Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Year 5	Structures (Bridges)	Food (What could be healthier)	Electrical systems (Electronic greeting cards)
	*Generate, develop, model and communicate their ideas through discussion and prototypes	*Understand and apply the principles of a healthy and varied diet.	*Understand how key events and individuals in design and technology have helped shape the world
	*Select from and use a wider range of materials, components and construction materials according to their functional properties and aesthetics	*Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.	*Investigate and analyse a range of existing products
	*Investigate and analyse a range of existing products	*Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.	*Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
	*Apply their understanding of how to strengthen, stiffen and reinforce more complex structures	*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.	*Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
	*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.	*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
	*Select from and use a wider range of tools and equipment to perform practical tasks	*Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	*Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
	*Evaluate their ideas and products against design criteria and consider the views of others to improve their work	*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.

*Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content | |
| **Year 6** | **Structures (playgrounds)**

*Use research to develop and inform the design of innovative, functional and appealing products that are fit for purpose and aimed at particular groups

*Generate, develop, model and communicate ideas through discussion and annotated sketches

*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

*Select from and use a wide range of tools and equipment to perform practical tasks

*Select from and use a wider range of materials and components including construction materials, | **Food (Come dine with me)**

*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

*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 | **Electrical systems (Steady hand game)**

*Understand how key events and individuals in design and technology have helped shape the world

*Investigate and analyse a range of existing products

*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 and communicate their ideas through discussion and annotated sketches

*Evaluate their ideas and products against design criteria and consider the views of others to improve their work

*Understand and use electrical systems in their |

according to their functional properties and aesthetic qualities *Apply understanding of how to strengthen, stiffen and reinforce complex structures *Inform the design of innovative, functional and appealing products, aimed at particular individuals or groups	processed * 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 *Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	products *Model ideas through prototypes *Select from and use a wide range of tools and equipment to perform practical tasks