




Age Phase	Year Group	DT Focus	Overview of Topic	Main National Curriculum Focus/ EYFS Outcomes
Early Years	Rec	Constructing	Learn to construct with a purpose in mind. *Children may use scissors, glue, string and a hole punch to make a bag.	<p>Fine Motor Skills Children at the expected level of development will use a range of small tools, including scissors, paint brushes and cutlery.</p> <p>Expressive Arts and Design Children at the expected level of development will: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; They will be able to share their creations, explaining the process they have used.</p> 
		Structure and joins	Build structures and join materials using different materials. *Following a visit to St Michael's church, children may make a church tower out of cardboard boxes and masking tape.	
		Using a range of tools	Children will learn to design and make their own products. *For example, they may decide to make their own toy car. They may choose to use scissors, a stapler, elastic band and glue to join different materials together. They then may evaluate their design and choose to modify by using masking tape.	
		Cooking techniques	Children will practise stirring, mixing, pouring and blending ingredients during cookery activities. *Children may take turns stirring the mixture for pancakes and talk through the different steps. They may practise setting the table and practise using how to use a knife, fork and spoon and when best to use each type of cutlery.	



		<p>Exploration</p> <p>Children will dismantle things and learn about how everyday objects work. *For example, a child might dismantle a pepper grinder and discover how it is put together and the materials different parts are made of.</p> <p>Discussion</p> <p>Children will be given opportunities to discuss reasons that make activities safe or unsafe, for example hygiene, electrical awareness, and appropriate use of senses when tasting different flavourings. They will also learn to record their experiences by, for example, drawing, writing or through pictures and videos.</p> <p>*= possible ideas for EYFS</p>	
KS1	1	<p>Eat More Fruits and Vegetables</p> <p>Explore different fruit and vegetables, understanding where they come. As well as designing, making and evaluating their own salad.</p>	<ul style="list-style-type: none"> • Use the basic principles of a healthy and varied diet to prepare dishes. • Understand where food comes from.
		<p>Moving Minibeasts</p> <p>To design, make and evaluate their own moving mini beast after exploring the following different mechanisms: slider, lever and wheel.</p>	<ul style="list-style-type: none"> • Explore and use mechanisms, (e.g. levers, sliders, wheels and axels).
		<p>Stable Structures</p> <p>To design, make and evaluate their own stable structure using different materials.</p>	<ul style="list-style-type: none"> • Build structures, exploring how they can be made stronger, stiffer and more stable.



KS1	2	Puppets	To design, make and evaluate their own glove puppet from a choice of materials, using sewing as the joining technique.	<ul style="list-style-type: none"> Select from and use a wide range of materials, including textiles, according to their characteristics. Select from and use a range of tools and equipment to perform practical tasks, (e.g. cutting, shaping, joining and finishing).
		Vehicles	To design, make and evaluate their own vehicle using an axel, chassis and wheels.	<ul style="list-style-type: none"> To explore and use mechanisms (e.g. levers, sliders, wheels and axels).
		Perfect Pizzas	To design make and evaluate their own healthy pizza.	<ul style="list-style-type: none"> Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.
KS2	3	Storybooks	To design, make and evaluate their own moving storybook after looking at the following moving mechanisms: a paper concertina, pop-out object, window flaps, rotating wheels and levers.	<ul style="list-style-type: none"> Understand and use mechanical systems, (e.g. gears, pulleys, cams, levers and linkages) Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing) accurately. Select from and use a wider range of materials and components, including 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.
		British Inventors	To investigate four British inventions: telephone, world wide web, reinforced concrete, the mackintosh and to reflect on how they have impacted on our lives.	<ul style="list-style-type: none"> Investigate and analyse a range of existing products. Understand how key events and individuals in design and technology have helped shape the world.
		Light-Up Signs	To design, make and evaluate their own decorative illuminated sign. Children will make the enclosure of the decorative illuminated design and construct a circuit with one or more lights to fit inside. Children will also investigate ways in which to use computers to program and control lights in a product (Scratch).	<ul style="list-style-type: none"> Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fir for purpose, aimed at particular individuals or groups. Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use electrical systems in their products (e.g. series circuits, incorporating switches, bulbs, buzzers and motors).



KS2	4	Seasonal Stockings	To design, make and evaluate a Christmas stocking using sewing skills to join the fabric.	<ul style="list-style-type: none"> • Generate, develop, model and communicate their ideas through discussion and annotated sketches. • Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing) accurately. • Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
		Making Mini Greenhouses	To design, make and evaluate their own mini greenhouse - focusing on suitable materials for stability.	<ul style="list-style-type: none"> • Generate, develop, model and communicate their ideas through discussion and annotated sketches... • Select from and use a wider range of materials and components, including 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. • Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
		Seasonal Food	Focusing on seasonal food in Britain, children will have the opportunity to make fairy cakes, fruit tarts, stuffed peppers, meatballs, a fish or vegetarian alternative meal and to plan a meal using seasonal ingredients.	<ul style="list-style-type: none"> • 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.
KS2	5	Building Bridges	To design, make and evaluate a prototype for a new road bridge for a power station.	<ul style="list-style-type: none"> • 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 and prototypes. • Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing) accurately. • 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.



		<p>Chinese Inventions</p> <p>To understand how these four great inventions of China shaped the world: paper, the compass, moveable-type printing and gunpowder. To investigate water-powered machines and the mechanical systems that allow them to work. To design, make and evaluate a kite.</p>	<ul style="list-style-type: none"> Investigate and analyse a range of existing products. Understand how key events and individuals in design and technology have helped shape 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. Generate, develop, model and communicate their ideas through discussion, annotated sketches and prototypes. Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing) accurately. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand and use mechanical systems in their products (e.g. gears, pulleys, cams, levers and linkages)
		<p>Fashion and Textiles</p> <p>To design, make and evaluate a drawstring bag using sewing skills to join the fabric.</p>	<ul style="list-style-type: none"> Generate, develop, model and communicate their ideas through discussion ... and pattern pieces. Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing) accurately. Select from and use a wider range of materials and components, including textiles and ingredients, according to their functional properties and aesthetic qualities.
KS2	6	<p>Viking Boat Builders</p> <p>To design, make and evaluate a Viking boat made from balsa wood.</p>	<ul style="list-style-type: none"> Generate, develop, model and communicate their ideas through discussion, annotated sketches and 3D or exploded diagrams. Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing) accurately. Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing) accurately. Select from and use a wider range of materials and components, including 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.



		Programming Pioneers	To design, make and evaluate a design for a computer-controlled system that could be embedded in to a room (e.g. a doorbell system or smart home with automatic lights).	<ul style="list-style-type: none"> • Generate, develop, model and communicate their ideas through discussion, annotated sketches, prototypes and computer-aided design. • Understand and use electrical systems in their products (e.g. series circuits incorporating switches, bulbs, buzzers and motors). • Apply their understanding of computing to program, monitor and control their products.
		Burgers	To design make and evaluate their own burger.	<ul style="list-style-type: none"> • 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.