



CURRICULUM DEVELOPMENT

DT PRE-SCHOOL



	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2	AREs
AGES 2-3	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Experiment with a range of media through sensory exploration. Explore and interact with building blocks. 	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Explore and manipulate different materials using senses to investigate. Balance blocks, exploring and using senses. Explore modelling tools. Use glue sticks and a variety of materials to fix and join. Use scissors/loop scissors to snip playdough with adult support. 	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Use loop scissors/ scissors with adult support to snip paper. Take pride in work and show familiar adult. Explore block and brings building towers, continuing until they fall. Explore construction kits, connecting and disconnecting. 	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Gain more control over tools eg glue sticks. Use construction materials to build towers that resemble buildings and structures. 	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Talk about their creations. Connect, join and fix things together. Have ideas about what they want to make, needing support and suggestions of how to do it. 	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Explore junk materials and make simple models. Begin to build with construction with a purpose in mind. Manipulate and handle materials with increasing control. 	<ul style="list-style-type: none"> Explore different materials, using all their senses to investigate them. Manipulate and play with different materials. Use their imagination as they consider what they can do with different materials. Make simple models which express their ideas.
AGES 3-4	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Explore different materials, using all their senses to investigate them. Develop their own ideas and then decide which materials to use to express them. 	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Know how to join things together using glue, tape, string. Make simple models which express their ideas. 	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Make a collage or model using own choice of materials. Use their imagination as they consider what they can do with different materials. 	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Choose what they want to make and which materials they will need. Know how to build using a range of materials and begin to talk about what it is. 	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Join different materials and explore different textures. Know and talk about why they choose the materials/resources/colours for their picture/collage/model/artwork. 	<p>Children will be learning to:</p> <ul style="list-style-type: none"> Know how to add detail to pictures and models. Know and talk about why they choose the materials/resources/colours for their picture/collage/model/artwork. Adapt what they have created, saying what they would like to change. 	<ul style="list-style-type: none"> Explore different materials freely, to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures.



CURRICULUM DEVELOPMENT

DT RECEPTION



AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
		<p>Big Question: How was the porridge just right?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to begin exploring cutting, sticking and creating a planned piece of work. Children to create their own version of Goldilocks using junk modelling resources within the provision areas.</p>	<p>Big Question: How do things grow from seeds?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to create their own moving plant using levers and linkages.</p>	<p>Big Question: Who are the people that help us?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to build different houses that they have seen in the community. Children to complete this within the junk modelling area of provision but children to plan and evaluate their designs.</p>	<p>Big Question: Can I huff and puff and blow your house down?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to create free standing structures and look at which structure is most robust and why.</p>



CURRICULUM DEVELOPMENT

DT YEAR 1



AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2	AREs
	<p>Big Question: Why are some places in the world always hot and others always cold?</p> <p>Overview of knowledge, understanding and skills (key concepts): Create a scene of a hot cold country and use sliders and levers to make the an element move. Children to understand that different mechanisms produce different types of movement.</p>			<p>Big Question: What was my grandparents' childhood like?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to make their own models of a toy that their grandparent used and show that they know how to make freestanding structures stronger, stiffer and more stable.</p>	<p>Big Question: What are our seen body parts and what do we mean by the senses?</p> <p>Overview of knowledge, understanding and skills (key concepts): Preparing Fruit and Vegetables - create a fruit salad for Nelson Mandela. Use simple utensils and equipment to peel, cut, slice, squeeze and chop safely.</p>	<p>By the end of KS1 children should be able to:</p> <p>DESIGN</p> <ul style="list-style-type: none"> 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 <p>COOKING AND NUTRITION</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>MAKE</p> <ul style="list-style-type: none"> 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 <p>EVALUATE</p> <ul style="list-style-type: none"> explore and evaluate a range of existing products evaluate their ideas and products against design criteria <p>TECHNICAL KNOWLEDGE</p> <ul style="list-style-type: none"> 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.



CURRICULUM DEVELOPMENT

DT YEAR 2



AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2	AREs
<p>Big Question: Who are the famous people that have made an impact worldwide?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to create a meal for a famous person that they are looking at within their curriculum area and explore where the foods have come from.</p>			<p>Big Question: What goes on at an airport or a train station?</p> <p>Overview of knowledge, understanding and skills (key concepts): Explore and use wheels, axles and axle holders - children to explore how they could create an object to help move items across the airport or train station.</p>	<p>Big Question: How did the Victorians influence our lives today?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to create a bathing suit for Queen Victoria linking to using a template to create two identical shapes. Children to join fabric using different techniques such as running stitch, glue, over stitch, stapling.</p>		<p>By the end of KS1 children should be able to:</p> <p>DESIGN</p> <ul style="list-style-type: none"> 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 <p>COOKING AND NUTRITION</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>MAKE</p> <ul style="list-style-type: none"> 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 <p>EVALUATE</p> <ul style="list-style-type: none"> explore and evaluate a range of existing products evaluate their ideas and products against design criteria <p>TECHNICAL KNOWLEDGE</p> <ul style="list-style-type: none"> 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.



CURRICULUM DEVELOPMENT

DT YEAR 3



AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2	AREs
	<p>Big Question: How did Britain change between the beginning of the Stone Age and the end of the Iron Age?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to create their own pencil case – children to show their understanding for the need of patterns and seam allowances.</p>	<p>Big Question: How do we energise our homes and country?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to make a card to share key facts about how to energise our homes – cards to show that children understand lever and linkage mechanisms and that they can distinguish between fixed and loose pivots.</p>		<p>Big Question: How are Rivers formed?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to develop their understanding of pneumatics and make their own river.</p>		<p>By the end of KS2 children should be able to:</p> <p>DESIGN</p> <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, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>COOKING AND NUTRITION</p> <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. <p>MAKE</p> <ul style="list-style-type: none"> • 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 <p>EVALUATE</p> <ul style="list-style-type: none"> • 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 <p>TECHNICAL KNOWLEDGE</p> <ul style="list-style-type: none"> • 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] • understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors) • apply their understanding of computing to program, monitor and control their products



CURRICULUM DEVELOPMENT

DT YEAR 4



AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2	AREs
	<p>Big Question: Where would you choose to build a city?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to create a 3-D textile pieces that has a combination of accurately made pattern pieces, fabric shapes and different fabrics. Children to create a piece of work that highlights their city.</p>		<p>Big Question: How is sound created and how does it travel?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to make their own electrical circuit that could represent the end of the Iron Age. Circuits to incorporate switches, bulbs and buzzers.</p>			<p>By the end of KS2 children should be able to:</p> <p>DESIGN</p> <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, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>COOKING AND NUTRITION</p> <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. <p>MAKE</p> <ul style="list-style-type: none"> • 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 <p>EVALUATE</p> <ul style="list-style-type: none"> • 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 <p>TECHNICAL KNOWLEDGE</p> <ul style="list-style-type: none"> • 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] • understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors) • apply their understanding of computing to program, monitor and control their products



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DT YEAR 5



AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2	AREs
			<p>Big Question: What are the main features of South America?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to use their knowledge on frames and structures to create a feature of South America using joining techniques and triangulation.</p>		<p>Big Question: What is Fairtrade and why should it matter to us?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to create their own moving poster that includes cams, pulleys and gears that links to fairtrade.</p>	<p>By the end of KS2 children should be able to:</p> <p>DESIGN</p> <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, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>COOKING AND NUTRITION</p> <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. <p>MAKE</p> <ul style="list-style-type: none"> 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 <p>EVALUATE</p> <ul style="list-style-type: none"> 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 <p>TECHNICAL KNOWLEDGE</p> <ul style="list-style-type: none"> 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] understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors) apply their understanding of computing to program, monitor and control their products



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DT YEAR 6



AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2	AREs
<p>Big Question: When and why was the British Empire created?</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to competently select and accurately assemble materials, and securely connect electrical components to produce a reliable, functional product. Children to create and modify a computer control program to enable their electrical product to respond to changes in the environment. Children to create their own board game that can include the above within an electrical circuit.</p>					<p>Big Question: How do maps help us find our way around? (Y6+ Programme)</p> <p>Overview of knowledge, understanding and skills (key concepts): Children to create their own bread/ pizza/muffin/scones - looking at how yeast works and kneading.</p>	<p>By the end of KS2 children should be able to:</p> <p>DESIGN</p> <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, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>COOKING AND NUTRITION</p> <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. <p>MAKE</p> <ul style="list-style-type: none"> 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 <p>EVALUATE</p> <ul style="list-style-type: none"> 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 <p>TECHNICAL KNOWLEDGE</p> <ul style="list-style-type: none"> 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] understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors) apply their understanding of computing to program, monitor and control their products