

Design & Technology Curriculum Long Term Planning 2020 - 2021

	Autumn		Spring		Summer	
D&T EYFS						
D&T Year 1	<p>Art Unit <i>Where would you prefer to live?</i></p>	<p>DT Unit Textiles/Sewing Make -Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Evaluate -Explore and evaluate a range of existing products.</p> <p><i>Make bunting using running stitch for decoration.</i></p> <p><i>Remember, Remember</i></p>	<p>Art Unit <i>Arctic Explorers</i></p>	<p>DT Unit Cooking and Nutrition Understand where food comes from. -Use the basic principles of a healthy and varied diet to prepare dishes. Evaluate -Evaluate their ideas and products against design criteria</p> <p><i>Identify food that grows in different seasons. Discuss how we tend to eat differently at different times of the year. Identify vegetables and make a soup using seasonal produce.</i></p> <p><i>Seasons And Weather</i></p>	<p>DT Unit Structures Design -Generate and communicate their ideas through talking and drawing, Make -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, according to their characteristics Evaluate -Evaluate their ideas and products. Technical knowledge -Build a structure, exploring how they can be made stronger, stiffer and more stable</p> <p><i>What is a structure? What structures will you see when you travel around Alrewas/ England/ world? Bridge, Angel of the North, London Bridge etc What structures might</i></p>	<p>Art Unit <i>Out Of This world!</i></p>

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					<p>you see at the seaside? Pier, viewing station, Blackpool Tower, playground on the beach (slide, swing, roundabout, climbing frame) Design and make a structure. Evaluate made structure.</p> <p>Beside The Seaside</p>	
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<p>D&T Year 2</p>	<p>Art Unit Where would you prefer to live?</p>	<p>DT Unit Textiles/Sewing Make -Select from and use a wide range of materials and components, including construction materials, textiles according to their characteristics. Evaluate -Evaluate their ideas and products against design criteria</p> <p style="color: red;">Design and sew a fabric face. Affix buttons for decoration etc.</p> <p style="color: purple;">Remember, Remember</p>	<p>Art Unit Arctic Explorers</p>	<p>DT Unit Moving Mechanisms Design -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 and mock-ups. Make -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, according to their characteristics Evaluate -Explore and evaluate a range of existing products -Evaluate their ideas and products against design criteria Technical knowledge -Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their product.</p>	<p>DT Unit Cooking and Nutrition - Understand where food comes from. -Use the basic principles of a healthy and varied diet to prepare dishes. Evaluate -Evaluate their ideas and products against design criteria</p> <p style="color: red;">How are you going to keep the sand out of your picnic?</p> <p style="color: red;">Create a perfect picnic for the beach.</p> <p style="color: red;">Add something special - investigate dips and dippers using vegetables etc.</p> <p style="color: purple;">The Seaside</p>	<p>Art Unit Out Of This World</p>
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				<p>What is a mechanism? Investigate and evaluate a range of cards and books that have pop up mechanisms and moving parts. Test materials to see if they can bend, twist, stretch and squash to build knowledge of the properties of materials. Use knowledge of material properties to make decisions about the most suitable material for an interactive weather poster. Make a research page based upon the user, purpose, appearance and function of the poster. Create a weather poster using mechanisms, levers and sliders. (The National Academy)</p>		
				<p>Whatever The Weather</p>		

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<p>D&T Year 3</p>	<p>DT Unit Mechanisms -Understand and use mechanical systems in their products [for example, levers and linkages] Design -Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose and aimed at particular groups -Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams. Make -Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities -Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Evaluate -Evaluate their ideas and products against their own design criteria and</p>	<p>Art Unit Vikings</p>	<p>DT Unit Textiles/Sewing Design -Generate, develop, model and communicate their ideas through discussion and annotated sketches. Make -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 textiles according to their functional properties and aesthetic qualities Evaluate -Investigate and analyse a range of existing products -Understand how key events and individuals in DT have helped shape the world Victorian cross stitch - sampler and bookmark. Victorians</p>	<p>Art Unit The Mayans</p>	<p>DT Unit Technical Knowledge - ICT -Apply their understanding of computing to program, monitor and control their products. 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. Make -Select from and use a wider range of tools and equipment to perform practical tasks accurately -Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities Evaluate -Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work -Understand how key</p>	<p>Art Unit Lichfield</p>
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	<p>consider the views of others to improve their work</p> <p>Technical knowledge -Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>Puppet using linkages and levers.</p> <p>Christopher Columbus</p>				<p>events and individuals in design and technology have helped shape the world</p> <p>Technical knowledge -Apply their understanding of computing to program, monitor and control their products.</p> <p>Programme a floor robot around a child designed course (inspired by travel around the UK). (Programming Adventures)</p> <p>Countries and Cities Of the UK</p>	
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<p>D&T Year 4</p>	<p>DT Unit Structures -Apply their understanding of how to strengthen, stiffen and reinforce more complex structures 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. -Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams. Make -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 according to their functional properties and aesthetic qualities Evaluate Evaluate their ideas and products against their own design criteria and consider the views of</p>	<p>Art Unit The Vikings</p>	<p>DT Unit Cooking and Nutrition -Understand how key events and individuals in DT have helped shape the world -Understand and apply the principles of a healthy and varied diet. -Prepare and cook a variety of dishes using a range of cooking techniques. -Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. Make -Select from and use a wider range of ingredients, according to their functional properties and aesthetic qualities Evaluate -Investigate and analyse a range of existing products -Understand how key events and individuals in DT have helped shape the world Victorian bread making. Investigate the Warburton Bread Company, make bread, create a new variety,</p>	<p>Art Unit The Mayans</p>	<p>DT Unit Technical Knowledge - Electricity - Battery operated lights Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] 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. -Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams. Make -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 according to their functional properties and aesthetic qualities</p>	<p>Art Unit Lichfield</p>
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	<p>others to improve their work</p> <p>Make a model of the Santa Maria, Pinta or Nina.</p> <p>Christopher Columbus</p>		<p>discuss seasonal accompaniments.</p> <p>The Victorians</p>		<p>Evaluate</p> <p>Evaluate ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>To design and build a battery-operated night light to be used at home. Use a structure withing the UK as inspiration. (The National Academy)</p> <p>Countries and Cities of the UK</p>	
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<p>D&T Year 5</p>	<p>DT Unit Structure -Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p>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 -Generate, develop, model and communicate their ideas through discussion, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p>Make -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 according to their functional properties and aesthetic qualities</p> <p>Evaluate</p>	<p>Art Unit The Ancient Egyptians</p>	<p>DT Unit Technical Knowledge- Electrical Circuits -Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p> <p>Design -Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular groups -Generate, develop, model and communicate their ideas through discussion, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>Make -Select from and use a wider range of tools and equipment to perform practical tasks accurately -Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities</p> <p>Evaluate -Investigate and analyse a</p>	<p>Art Unit We are Europeans!</p>	<p>DT Unit Textiles/Sewing 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 -Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>Make -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 textiles according to their functional properties and aesthetic qualities</p> <p>Evaluate -Investigate and analyse a range of existing products -Evaluate their ideas and products against their</p>	<p>Art Unit A Thousand Years of Alrewas</p>
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	<p>-Investigate and analyse a range of existing products</p> <p>-Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Design a bobsleigh run/marble run.</p> <p>The Olympics</p>		<p>range of existing products</p> <p>-Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Design and construct a building with security devices (e.g. lights and buzzers) that will deter burglars.</p> <p>Or</p> <p>Design and construct a prison with security devices that will deter prisoners from trying to escape.</p> <p>Crime and Punishment</p>		<p>own design criteria and consider the views of others to improve their work</p> <p>-Understand how key events and individuals in design and technology have helped shape the world</p> <p>Did Vikings sew?</p> <p>To design, create and evaluate a phone/mask/card holder. Decorated with sewing inspired by Viking symbols and artwork (The National Academy)</p> <p>Yorvik - York</p>	
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<p>D&T Year 6</p>	<p>DT Unit Technical Knowledge - ICT -Apply their understanding of computing to program, monitor and control their products. 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 Evaluate -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</p> <p style="color: red;">Programming a beebot - to complete a series of Olympic challenges that have been designed by the children.</p> <p style="color: purple;">The Olympics</p>	<p>Art Unit The Ancient Egyptians</p>	<p>DT Unit Mechanisms -Understand and use mechanical systems in their products [for example, gears, pulleys and cams] 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. -Generate, develop, model and communicate their ideas through discussion, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make -Select from and use a wider range of tools and equipment to perform practical tasks accurately -Select from and use a wider range of materials and components according to their functional properties and aesthetic qualities Evaluate -Investigate and analyse a range of existing products -Evaluate their ideas and</p>	<p>Art Unit We are Europeans!</p>	<p>DT Unit Nutrition And Food</p> <p>Evaluate -Understand how key events and individuals in DT have helped shape the world.</p> <p>-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> <p style="color: red;">Research inventors through history who have shaped our world. Who are your top 3 inventors? Why?</p> <p style="color: red;">Seasonal Calendar - in line with Viking use of food Design a seasonal meal by selecting from a wide range of ingredients, according to their functional properties and aesthetic qualities in the</p>	<p>Art Unit A Thousand Years of Alrewas</p>
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			<p>products against their own design criteria and consider the views of others to improve their work</p> <p>Use gears, pulleys and cams to design a room that will secure criminals Or Use gears, pulleys and cams to design an exercise area for criminals Or Any activity that uses gears, pulleys and cams and link to your topic.</p> <p>Crime and Punishment</p>		<p>context creating a healthy, seasonal meal. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques in the context of preparing and cooking a healthy seasonal meal. (Super Seasonal Cooking)</p> <p>Yorvik - York</p>	
Enrichment		Mince Pies/ biscuits/cakes		Easter Nest/ Simnel Cake		The Great Alrewas Bake Off
Skills	Food and Nutrition	Mechanism	Structures	Technical Knowledge- ICT, electricity	Textiles	Mastery