



Moorfield Primary School Design Technology Provision Map 2021/22

Key vocabulary

Year Group	Design	Make	Evaluate	Our projects
<p>Year 1</p>	<p>Children can:</p> <ul style="list-style-type: none"> • Use simple design criteria • State what their products are, who they are for and how they will work. 	<p><u>Planning</u> Children can: Plan by suggesting what to do next. Select from a range of tools, equipment, materials, components</p> <p><u>Practical Skills & Techniques</u> Children can:</p> <ul style="list-style-type: none"> - Follow procedures for safety and hygiene. - Measure, mark out, cut shape assemble, join, combine and finish a range of materials and components. <p><u>Technical knowledge</u> Children know about:</p> <ul style="list-style-type: none"> - the simple working characteristics of materials and components - the movement of simple mechanisms - how freestanding structures can be made stronger, stiffer and more stable 	<p>Children are able to :</p> <ul style="list-style-type: none"> - Evaluate their own ideas and projects by making simple judgements. - Explore who and what the products are for. 	<p><u>Year A</u></p> <p>Autumn Term Structures : Make a boat to escape the Great Fire of London.</p> <p>Spring Term Textiles - Make a bag from a T-Shirt.</p> <p>Summer Term Mechanisms - Levers and sliders Make a pop up book</p> <p><u>Year B</u> Autumn Term Preparing Food and Vegetables Make and evaluate a 'Healthy Smoothie'.</p>

				<p>Spring Term Mechanisms - Wheels and Axles Make a locomotive for the 'Moorfield Rainhill Trails'</p> <p>Summer Term Textiles - Templating and joining techniques Make a Puppet for our 'seaside puppet show'.</p>
--	--	--	--	---

Year 2	<p>Children can:</p> <ul style="list-style-type: none"> • Use simple design criteria • State what their products are, who they are for and how they will work. • Generate ideas using their own experiences and existing products 	<p><u>Planning</u> Children can:</p> <ul style="list-style-type: none"> - Plan by suggesting what to do next. - Select from a range of tools, equipment, materials & components. <p><u>Practical Skills & Techniques</u> Children can:</p> <ul style="list-style-type: none"> - Follow procedures for safety and hygiene. - Measure, mark out, cut shape assemble, join, combine and finish a range of materials and components. <p><u>Cooking and Nutrition</u></p>	<p>Children are able to :</p> <ul style="list-style-type: none"> - evaluate their own ideas and projects by making simple judgements. - Explore who and what the products are for, what they are made from. - Discuss what they like and discuss about the products. 	<p><u>Year A</u> Autumn Term Structures : Make a boat to escape the Great Fire of London.</p> <p>Spring Term Textiles - Make a bag from a T-Shirt.</p> <p>Summer Term Mechanisms - Levers and sliders Make a pop up book</p> <p><u>Year B</u> Autumn Term</p>
---------------	---	---	--	--

		<p>Children can:</p> <ul style="list-style-type: none"> - Understand how to prepare simple dishes safely and hygienically without a heat source. - Name and sort foods into groups. - Know that everyone should eat at least 5 portions of food and vegetables per day. - Know that food comes from plants and animals and that it is farmed or caught <p><u>Technical knowledge</u> Children understand:</p> <ul style="list-style-type: none"> - the simple working characteristics of materials and components - the movement of simple mechanisms - how freestanding structures can be made stronger, stiffer and more stable. - use the correct technical vocabulary. <p><u>Textiles/Materials</u> Children can</p> <ul style="list-style-type: none"> • Select and use a range of materials to create a planned design. • Join fabrics and materials using different techniques e.g. gluing, sewing, taping • Finish product by adding detail. 		<p>Preparing Food and Vegetables Make and evaluate a 'Healthy Smoothie'.</p> <p><u>Spring Term</u> Mechanisms - Wheels and Axels Make a locomotive for the 'Moorfield Rainhill Trails'</p> <p><u>Summer Term</u> Textiles - Templating and joining techniques Make a Puppet for our 'seaside puppet show'.</p>
--	--	---	--	--

<p>Year 3</p>	<p>Children will:</p> <ul style="list-style-type: none"> - gather information about user needs. - Develop their own design criteria. - Describe the intended user. - Generate realistic ideas based on user needs. - Use a range of drawing skills to design prototypes. 	<p><u>Cooking and Nutrition</u></p> <p>Children will:</p> <ul style="list-style-type: none"> - Know that food is grown, reared and caught in the UK, Europe and the wider world. - Know how to prepare a variety of dishes safely and hygienically. - Know that a healthy diet is made from a variety and balance of food and drink. <p><u>Planning</u></p> <p>Children are able to:</p> <ul style="list-style-type: none"> - Order the main stages of making a shell structure. - Select suitable tools, equipment, materials and components to build their structure. - Explain their choices. <p><u>Practical skills and techniques</u></p> <p>Children are able to:</p> <ul style="list-style-type: none"> - Follow procedures for safety and hygiene. - Use a wider range of materials and components. - Measure, mark out, cut, shape, assemble, join and components. 	<p>Children will be able to:</p> <ul style="list-style-type: none"> - Investigate how well products have been designed and made. - Investigate whether their products are fit for purpose and meet user needs - Explain why materials have been chosen. 	<p><u>Year A</u></p> <p><u>Autumn Term</u> Food and Nutrition Adapting recipes for Diwali biscuits</p> <p><u>Spring Term</u> Structures Createa Shell structure.</p> <p><u>Summer Term - Science</u> <u>Electricity</u> Electrical systems</p> <p>Make a torch.</p> <p><u>Year B</u></p> <p><u>Autumn Term - Egypt</u> Mechanical systems - Levers and linkages</p> <p>Making a Shaduf</p> <p><u>Spring Term - Rivers</u> Seasonal food - Plan and create a seasonal meal</p> <p><u>Summer Term - Local Study/Art</u> Create a cushion from the fabric printed in art</p>
----------------------	--	---	--	--

<p>Year 4</p>	<p>Children will</p> <ul style="list-style-type: none"> - gather information about user needs. - Develop their own design criteria. - Describe the intended user. - Generate realistic ideas based on user needs. - Use a range of drawing skills to design prototypes. - Describe the user, purpose and design features of their products. - Explain how their products will work. - Design prototypes and pattern pieces, using computer aided design (CAD). 	<p><u>Technical knowledge</u> Children will:</p> <ul style="list-style-type: none"> - Know that materials have functional and aesthetic qualities - Understand that systems have an input process and an output process. <p><u>Planning</u> Children will be able to:</p> <ul style="list-style-type: none"> - Order the main stages of making a mechanical structure - Select suitable tools, equipment, materials and components to build their structure. - Explain their choices. <p><u>Practical skills and techniques</u> Children will be able to:</p> <ul style="list-style-type: none"> - Follow procedures for safety and hygiene. - Use a wider range of materials and components. - Measure, mark out, cut, shape, assemble and join and components. - Complete products with some accuracy. <p><u>Technical knowledge</u> Children will:</p>	<p>Children will be able to:</p> <ul style="list-style-type: none"> - Investigate how well products have been designed and made. - Investigate whether their products are fit for purpose and meet user needs. - Evaluate their ideas and products against their design criteria. - Explain why these materials have been chosen. - Explain the methods of construction used and how well they work. 	<p><u>Year A</u> <u>Autumn Term</u> Food and Nutrition Adapting recipes for Divali biscuits</p> <p><u>Spring Term</u> Structures Createa Shell structure.</p> <p><u>Summer Term - Science</u> <u>Electricity</u> Electrical systems Make a torch.</p> <p><u>Year B</u> <u>Autumn Term - Egypt</u> Mechanical systems - Levers and linkages Making a Shaduf</p> <p><u>Spring Term - Rivers</u> Seasonal food - Plan and create a seasonal meal</p>
----------------------	--	--	---	---

<p>Year 5</p>	<p>Children will be able to:</p> <ul style="list-style-type: none"> - Carry out research. - Develop a simple design specification. - Describe the user, purpose and design features of their products. - Use a range of drawing skills, discussion, prototypes and pattern pieces. 	<ul style="list-style-type: none"> - Know that materials have functions and aesthetic qualities - Understand that systems have an input process and an output process. - Know how to programme a computer to control their product. - Know how to make a strong, stiff shell structure. - Use the correct technical vocabulary. <p>Planning</p> <p>Children are able to:-</p> <ul style="list-style-type: none"> - Formulate lists of resources and step by step plans. - Select suitable tools, equipment, materials and components <p>Practical skills and techniques</p> <p>Children are able to:</p> <ul style="list-style-type: none"> - Follow procedures for safety and hygiene. - Use a wider range of materials 	<p>Children are able to:</p> <ul style="list-style-type: none"> - Identify strengths and areas to develop in their ideas and products by checking against their design specification. - Investigate how well products have been designed and made. - Evaluate whether products are fit for purpose and if 	<p>Summer Term - Local Study/Art Create a cushion from the fabric printed in art</p> <p>Year A Autumn Term Structures - Building frame structures Making Playground equipment</p> <p>Spring Term Food & Nutrition Local & seasonal effect - What could be healthier?</p>
----------------------	--	---	--	--

<p>Year 6</p>	<p>Children are able to:</p> <ul style="list-style-type: none"> - Carry out research. - Develop a simple design specification. 	<p>and components.</p> <ul style="list-style-type: none"> - Measure, mark out, cut, shape assemble and join materials. <p>Technical Knowledge</p> <p>Children are able to:</p> <ul style="list-style-type: none"> - Know that materials have functional and aesthetic qualities. - Understand that systems have an input and an output process. - Know how to reinforce and strengthen a framework. - Use the correct technical vocabulary. - <p>Food an Nutrition</p> <p>Children will;</p> <ul style="list-style-type: none"> - Know that food is grown, reared and caught in the UK, Eurpoe and the wider world. - Know that the seasons may affect the food available. - Know how food is processed into ingredients. - <p>Planning</p> <p>Children are able to:-</p> <ul style="list-style-type: none"> - Formulate lists of resources and step by step plans 	<p>they meet user needs.</p> <ul style="list-style-type: none"> - Explain why the materials have been chosen. - Evaluate the methods of construction used and how well they work. <p>Children will be able to:</p> <ul style="list-style-type: none"> - Identify strengths and areas to develop in their 	<p>Summer Term Electrical systems including programming, control and monitoring)</p> <p>Create a steady hand game.</p> <p>Year B Autumn Term Textiles - Combining different fabric shapes including Compute Aided Design (CAD).</p> <p>Make a soft toy circuit.</p> <p>Spring Term Food & Nutrition Celebrating culture/Adapting and improving recipes.</p> <p>Make a Greek Dish</p> <p>Summer Term Mechanical systems Pulleys, gears and cams (CAD)</p> <p>Make an automated toy</p> <p>Year A Autumn Term Structures - Building frame structures Making Playground equipment</p>
----------------------	--	---	---	---

	<ul style="list-style-type: none"> - Describe the user, purpose and design features of their products. - Explain how the product will work. - Use a range of drawing skills, discussion, prototypes and pattern pieces and computer aided design. 	<ul style="list-style-type: none"> - Select suitable tools, equipment, materials and components - Explain their choices. <p><u>Practical skills and techniques</u></p> <ul style="list-style-type: none"> - Follow procedures for safety and hygiene. - Use a wider range of materials and components. - Measure, mark out, cut, shape assemble and join materials. - Complete and finish with accuracy. <p><u>Food and nutrition</u></p> <ul style="list-style-type: none"> - Know how to cook a variety of dishes safely and hygienically using a heat source where appropriate. - Understand that different food and drink contain nutrients, water and fibre that are needed for health. - <p><u>Technical Knowledge</u></p> <ul style="list-style-type: none"> - Know that materials have functional and aesthetic qualities. - Understand that systems have an input and an output process. - Know how to programme a computer to control and monitor 	<p>ideas and products by checking against their design specification.</p> <ul style="list-style-type: none"> - Consider the views of others to make improvements. - Investigate how well products have been designed and made. - Evaluate whether products are fit for purpose and if they meet user needs. - Explain why the materials have been chosen. - Explain the methods of construction used and how well they work. - Evaluate how innovative and sustainable they are. 	<p><u>Spring Term</u></p> <p>Food & Nutrition Local & seasonal effect - What could be healthier?</p> <p><u>Summer Term</u> Electrical systems including programming, control and monitoring)</p> <p>Create a steady hand game.</p> <p><u>Year B</u> <u>Autumn Term</u> Textiles - Combining different fabric shapes including Compute Aided Design (CAD).</p> <p>Make a soft toy circuit.</p> <p><u>Spring Term</u> Food & Nutrition Celebrating culture/Adapting and improving recipes.</p> <p>Make a Greek Dish</p> <p><u>Summer Term</u></p> <p>Mechanical systems Pulleys, gears and cams (CAD)</p>
--	--	---	--	---

		<p>their products.</p> <ul style="list-style-type: none">- Know how to reinforce and strengthen a framework.- Use the correct technical vocabulary.		<p>Make an automated toy</p>
--	--	--	--	------------------------------

--	--	--	--	--