




Reception							
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Links to Development Matters	Physical Development (6)						
	<p> 3 and 4-year-olds will be learning to:</p> <p>Examples of how to support this:</p> <table border="1"> <tr> <td> <p>Choose the right resources to carry out their own plan. For example, choosing a spade to enlarge a small hole they dug with a trowel.</p> <p>Collaborate with others to manage large items, such as moving a long plank safely, carrying large hollow blocks.</p> <p>Use one-handed tools and equipment, for example, making snips in paper with scissors.</p> <p>Use a comfortable grip with good control when holding pens and pencils.</p> <p>Show a preference for a dominant hand.</p> </td> <td> <p>Explain why safety is an important factor in handling tools and moving equipment and materials. Have clear and sensible rules for everybody to follow.</p> <p>You can begin by showing children how to use onehanded tools (scissors and hammers, for example) and then guide them with hand-over-hand help. Gradually reduce the help you are giving and allow the child to use the tool independently.</p> <p>The tripod grip is a comfortable way to hold a pencil or pen. It gives the child good control. The pen is pinched between the ball of the thumb and the forefinger, supported by the middle finger with the other fingers tucked into the hand. You can help children to develop this grip with specially designed pens and pencils, or grippers. Encourage children to pick up small objects like individual gravel stones or tiny bits of chalk to draw with.</p> </td> </tr> </table>						<p>Choose the right resources to carry out their own plan. For example, choosing a spade to enlarge a small hole they dug with a trowel.</p> <p>Collaborate with others to manage large items, such as moving a long plank safely, carrying large hollow blocks.</p> <p>Use one-handed tools and equipment, for example, making snips in paper with scissors.</p> <p>Use a comfortable grip with good control when holding pens and pencils.</p> <p>Show a preference for a dominant hand.</p>
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Children in reception will be learning to:

Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.

Examples of how to support this:

Before teaching children the correct pencil grip and posture for writing, or how to use a knife and fork and cut with scissors, check:

- that children have developed their upper arm and shoulder strength sufficiently: they do not need to move their shoulders as they move their hands and fingers
- that they can move and rotate their lower arms and wrists independently

Help children to develop the core strength and stability they need to support their small motor skills. Encourage and model tummy-crawling, crawling on all fours, climbing, pulling themselves up on a rope and hanging on monkey bars.

Offer children activities to develop and further refine their small motor skills. Suggestions: threading and sewing, woodwork, pouring, stirring, dancing with scarves, using spray bottles, dressing and undressing dolls, planting and caring for plants, playing with small world toys, and making models with junk materials, construction kits and malleable materials like clay.

Regularly review the equipment for children to develop their small motor skills. Is it appropriate for the different levels of skill and confidence of children in the class? Is it challenging for the most dexterous children?

Continuously check how children are holding pencils for writing, scissors and knives and forks. Offer regular, gentle encouragement and feedback. With regular practice, the physical skills children need to eat with a knife and fork and develop an efficient handwriting style will become increasingly automatic.

Understanding the World (9)

3 and 4-year-olds will be learning to:

Use all their senses in hands-on exploration of natural materials.

Explore collections of materials with similar and/or different properties.

Talk about what they see, using a wide vocabulary.

Examples of how to support this:

Provide interesting natural environments for children to explore freely outdoors.

Make collections of natural materials to investigate and talk about.

Suggestions:

- contrasting pieces of bark
- different types of leaves and seeds
- different types of rocks
- different shells and pebbles from the beach

Provide equipment to support these investigations.

Suggestions: magnifying glasses or a tablet with a magnifying app.

Encourage children to talk about what they see.

Model observational and investigational skills. Ask out loud: "I wonder if...?"

Plan and introduce new vocabulary, encouraging children to use it to discuss their findings and ideas.



Explore how things work.	Provide mechanical equipment for children to play with and investigate. Suggestions: wind-up toys, pulleys, sets of cogs with pegs and boards.
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Talk about the differences between materials and changes they notice.	Provide children with opportunities to change materials from one state to another. Suggestions: • cooking – combining different ingredients, and then cooling or heating (cooking) them
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Expressive Arts and Design (10)

 3 and 4-year-olds will be learning to:

Examples of how to support this:

<p>Explore different materials freely, to develop their ideas about how to use them and what to make.</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>Join different materials and explore different textures.</p>	<p>Offer opportunities to explore scale.</p> <p>Suggestions:</p> <ul style="list-style-type: none"> • long strips of wallpaper • child size boxes • different surfaces to work on e.g., paving, floor, tabletop or easel <p>Listen and understand what children want to create before offering suggestions.</p> <p>Invite artists, musicians and craftspeople into the setting, to widen the range of ideas which children can draw on.</p> <p>Suggestions: glue and masking tape for sticking pieces of scrap materials onto old cardboard boxes, hammers and nails, glue guns, paperclips and fasteners.</p>
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Children in reception will be learning to:

Explore, use and refine a variety of artistic effects to express their ideas and feelings.

Return to and build on their previous learning, refining ideas and developing their ability to represent them.

Create collaboratively, sharing ideas, resources and skills.

Examples of how to support this:

Teach children to develop their colour-mixing techniques to enable them to match the colours they see and want to represent, with step-by-step guidance when appropriate.

Provide opportunities to work together to develop and realise creative ideas.

Provide children with a range of materials for children to construct with. Encourage them to think about and discuss what they want to make. Discuss problems and how they might be solved as they arise. Reflect with children on how they have achieved their aims.

Teach children different techniques for joining materials, such as how to use adhesive tape and different sorts of glue.

Provide a range of materials and tools and teach children to use them with care and precision. Promote independence, taking care not to introduce too many new things at once.

Encourage children to notice features in the natural world. Help them to define colours, shapes, texture and smells in their own words. Discuss children's responses to what they see.

Visit galleries and museums to generate inspiration and conversation about art and artists.

Design and Technology MTP 2022-2023



Year 1

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic of the term	<u>It's Good To Be Me</u>		<u>There's no place like home</u>		<u>A Toy's Story</u>	
D&T unit	<p><u>Food - Healthy Snacks</u></p> <p>Lesson 1 - Children will taste a selection of the same fruit comparing different qualities. (CCL - Science senses - taste)</p> <p>Lesson2 - Children will taste test a variety of fruit describing their properties.</p> <p>Lesson 3 Children will investigate different healthy snacks and carry out a survey of what their peers like and would be popular.</p> <p>Lesson 4 - Children will design 2 different healthy snacks suitable for the Christmas party.</p> <p>Lesson 5 - Children will carry out a survey of which snacks will be most popular.</p>			<p><u>Mechanisms - Making a pop-up card</u></p> <p>Lesson 1 - Children to investigate ways to create a moving picture with mechanisms.</p> <p>Lesson 2 - Children will explore the different possible ways of creating moving pictures using levers, pop ups and split pins.</p> <p>Lesson 3 - Children to investigate and practice the skills to create the different mechanisms before selecting and designing their own card based on that mechanism.</p> <p>Lesson 4 - Children to design a lever, split pin or pop up card.</p> <p>Lesson 5 - Children to make the card that they designed.</p>		<p><u>Textiles - Felt puppet</u></p> <p>Lesson 1 - To look at a variety of puppets, how they are designed and made.</p> <p>Lesson 2 - To design own animal puppet and label the resources needed.</p> <p>Lesson 3 - To learn how to do a running stitch and practice this skill.</p> <p>Lesson 4 - To create hand puppet, cutting around material and using running stitch learnt.</p> <p>Lesson 5 - To decorate the front of the puppet, sewing on different features of the animal.</p> <p>Lesson 6 - To evaluate puppet.</p>

Design and Technology MTP 2022-2023



	<p>Lesson 6 - Children will plan the making process and sequence their making considering all ingredients and equipment for one of the healthy snacks. Lesson 7 - Children will make their own healthy snack and then evaluate their snack.</p>			<p>Lesson 6 - Children to evaluate their end product.</p>		
<p>Links to National Curriculum</p>	<p><u>Design</u></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><u>Make</u></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] 					



	<p>* Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p><u>Evaluate</u></p> <ul style="list-style-type: none"> * Explore and evaluate a range of existing products * Evaluate their ideas and products against design criteria Technical knowledge * 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
<p>Skills</p>	<p><u>Technical knowledge</u></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. <p><u>Cooking and nutrition</u></p> <p>As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. Pupils should be taught to: Key stage 1</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.

Design and Technology MTP 2022-2023



Year 2

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic of the term	<u>Bright Lights, Big City</u>		<u>Dazzling Dinosaurs</u>		<u>Voyages of Columbus</u>	
D&T unit		<p><u>Mechanisms - Moving vehicles from the past. Wheels and axles. Links to GFOL</u></p> <p>Lesson 1: Children will look at vehicles past and present to see how they have changed.</p> <p>Lesson 2: Children will explore how to make different axels using different wheels and materials</p> <p>Lesson 3: Children will design their own cart</p> <p>Lesson 4 and 5: Children will make their cart that could have been used to transport goods during the GFOL</p> <p>Lesson 6: Children will evaluate their finished product</p> <p>Lesson 7: Making a healthy lunch (CCL History Florence Nightingale day - Making a hearty stew)</p>		<p><u>Mechanisms - Leavers for story. Moving dinosaur</u></p> <p>Lessons 1 & 2: Children will take inspiration from design throughout history. Children will master practical skills and explore how products have been created from moving lever books. In the lesson children will explore different types of levers.</p> <p>Lesson 3: Children will design 1st class levers that have a clear purpose and an intended user for a moving dinosaur.</p> <p>To design their design for the class book background and dinosaur</p> <p>Lessons 5 & 6: Children will make, evaluate and improve refining the design as work progresses. Children will make their moving</p>		<p><u>Textiles - Felt puppet</u></p> <p>Lessons 1: Children will take inspiration from design throughout history. Children will look at different photo frames made from different materials and different fixings and evaluate them.</p> <p>Lesson 2: Children will master practical skills. Children will explore joining different materials straws, wood, paper etc. together to see what may create a good picture frame.</p> <p>Lesson 3 & 4: Children will design, make, evaluate and improve. Children will design their picture frame using drawings and a computer programming software to design their aesthetics.</p>

Design and Technology MTP 2022-2023



				<p>dinosaurs using levers and create their page of the story</p> <p>Lesson 7: Children will evaluate their finished product (dinosaur lever page for the class book for reception)</p>		<p>Lessons 5 & 6: Children will design, make, evaluate and improve. Children will master practical skills. Children will cut their frame and attach it together.</p> <p>Lesson 7: Children will evaluate their finished product</p>
<p>Links to National Curriculum</p>	<p><u>Design</u></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><u>Make</u></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><u>Evaluate</u></p> <ul style="list-style-type: none"> * Explore and evaluate a range of existing products * Evaluate their ideas and products against design criteria 					
<p>Skills</p>	<p><u>Technical knowledge</u></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. 					



Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. Pupils should be taught to: Key stage 1

- * Use the basic principles of a healthy and varied diet to prepare dishes
- * Understand where food comes from.



Year 3

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic of the term	<u>Greece Now and Then</u>		<u>Settlements, Travel and Trade</u>		<u>Raging River, Fantastic Pharoos</u>	
D&T unit		<p><u>Electrical systems - Simple circuits and switches (including programming and control) Making a torch</u></p> <p>Lesson 1: Children will take inspiration from design throughout history - They will discuss, investigate and disassemble different battery-powered products including torches to understand how they work. Battery powered and mains. They will investigate different types of switches, including those with toggles and casing to protect it from electricity. They will discuss the dangers of mains electricity. Lesson 2: Children will master practical skills.</p>		<p><u>Food - Healthy and varied diet. Making a healthy lunch</u></p> <p>Lesson 1 - To master practical skills - Recap on the food groups with a focus on Carbohydrates. Taste test a variety of carbohydrates that will be the base for their healthy lunchtime meal design - questionnaire/ survey for each food product. Lesson 2 - To design, make evaluate and improve - Design a healthy lunchtime meal using vegetables found (traded) in Europe. Lesson 3 and 4- To master practical - To learn how to use the cooking utensils correctly and hygienically and to</p>		<p><u>Investigating structures- Frame structures - Making packaging for a chocolate bar</u></p> <p>Lesson 1 - To investigate disassemble products to understand how they work. Children to understand how shell structures are made using nets of packaging e.g. toothpaste, tissue boxes. Investigate and explore the packaging and how its constructed. Evaluate the products to judge the suitability for the intended users and purposes. Discuss graphics, logos, fonts etc Lesson 2 - To use suitable techniques to construct products and strengthen materials using suitable techniques.</p>

Design and Technology MTP 2022-2023



		<p>They will create a simple circuits involving a lightbulb. They will make a variety of switches by using simple classroom materials - foil, paper fasteners, corrugated plastic etc. to test in a series of simple circuits</p> <p>Lesson 3: Children will design, make evaluate and improve. They will design a simple circuit on the computer.</p> <p>Lesson 4: Children will design, make evaluate and improve. Children will design and label their own torch.</p> <p>Lesson 5 & 6: Children will design, make evaluate and improve when making their torch.</p> <p>Lesson 7: Children will evaluate their finished product relating back to the success criteria</p>		<p>assemble/ cook ingredients controlling the temperature.</p> <p>Lesson 5 - To design, make evaluate and improve - Evaluate my end product- discuss likes and possible changes.</p>		<p>Construct nets using card. To attempt a variety of different nets.</p> <p>Lesson 3 - To use software to design and represent product designs. Use CAD to design suitable sustainable packaging for a chocolate bar following a design brief.</p> <p>Lesson 4 -To choose suitable techniques to construct products - make the suitable shell package using resources.</p> <p>Lesson 5 - To evaluate the existing product - children to evaluate whether the product against the intended purpose with the intended user drawing on the design criteria previously agreed.</p>
<p>Links to National Curriculum</p>	<p><u>Design</u></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><u>Make</u></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><u>Evaluate</u></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>Skills</p>	<p><u>Technical knowledge</u></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 <p><u>Cooking and nutrition</u></p> <p>As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. Pupils should be taught to: Key stage 2</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



Year 4

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic of the term	<u>The Roman Empire and its impact on Britain</u>		<u>The Tudors</u>		<u>Invaders and Settlers</u>	
D&T unit	<p><u>Mechanical systems - Levers and linkages - making a storybook</u></p> <p>Lesson 1 - To take inspiration from design throughout history. To explore examples of moving book, greeting cards, pop up books and moving parts. Look at the mechanisms used.</p> <p>Lesson 2- To master practical skills. To experiment by making the different mechanisms.</p> <p>Lesson 3- To design, make, evaluate and improve and to master practical skills. To plan how to make their book design.</p>	-	<p><u>Food Healthy and varied diet Making a Cornish pasty</u></p> <p>Lesson 1 - To take inspiration from design throughout history (to disassemble products) Introduction - taste a variety of pasties with different fillings. Evaluate thoughts on the pasties- likes/dislikes/textures/flavours.</p> <p>Lesson 2 - To master practical skills to make a pasty. Children to follow a simple recipe in a group to make a pasty with Tudor inspired filling - photos.</p> <p>Lesson 3 - To design a pasty for the school canteen, using my knowledge of Tudor fillings and research from the first lesson. Children to design their own pasty and annotate with equipment needed and ingredients.</p> <p>Lesson 4 and 5 - To master practical skills to make the pasty using my own design.</p>		<p><u>Textiles - 2D shape to 3D product - Making an Anglo Saxon purse</u></p> <p>Lesson 1 - To take inspiration from design throughout history. Children will research different shapes and styles of Anglo Saxon purses/ money carriers</p> <p>Lesson 2 - To master practical skills. Children will practice different types of stitches - running stitches, cross stitches and over stitches using paper.</p> <p>Lesson 3 - To design, make, evaluate and improve. Children will design their Anglo Saxon purse thinking about</p>	

Design and Technology MTP 2022-2023



	<p>Lesson 4 and 5 - To design, make, evaluate and improve and to master practical skills. Making the moving book using the mechanisms explored.</p> <p>Lesson 6 - To design, make, evaluate and improve. Evaluate their end product - end of unit assessment.</p>		<p>Children to use the correct equipment and follow a recipe to make a pasty - with their own filling. To then taste their final product - photo</p> <p>Lesson 6 - To evaluate my work and write a step by step on how I created my pasty.</p>		<p>its purpose and design criteria</p> <p>Lesson 4 - To design, make, evaluate and improve - Children will begin to make their Anglo Saxon purse. They will cut out their purse shape and attached the purse together by stitching the seams together using a running stitch or over stich.</p> <p>Lesson 5 - To design, make, evaluate and improve Children will complete making their Anglo Saxon purse by adding their fastening.</p> <p>Lesson 6 - To design, make, evaluate and improve. Children will evaluate their Anglo Saxon purse/container explaining their strengths, if it meets the original criteria, if it is fit for purpose, how they</p>	
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Design and Technology MTP 2022-2023



					<p>could make it better next time. - photo of finished product.</p>	
<p>Links to National Curriculum</p>	<p><u>Design</u></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><u>Make</u></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><u>Evaluate</u></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>Skills</p>	<p><u>Technical knowledge</u></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. 					



Cooking and nutrition

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- * 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



Year 5

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic of the term	<u>Mayans and the rainforest</u>		<u>The Earth and Beyond</u>		<u>The Vikings</u>	
D&T unit		<p><u>Food - Celebrating culture and seasonality - Cooking a Mayan meal</u></p> <p>Lesson 1 - To master practical skills (To measure accurately and calculate ratios of ingredients to scale up or down from a recipe) - children to follow recipe to make a Mayan dish tortilla. Label ingredients used.</p> <p>Lesson 2 - To master practical skills (To measure accurately and calculate ratios of ingredients to scale up or down from a recipe) - mixed beans with quinoa etc - children to compare the two dishes they have made - likes, dislikes.-</p>		<p><u>Electrical systems more complex switched and circuits (including programming, monitoring and control) designing and making a fire alarm</u></p> <p>To create an alarm system for our site manager</p> <p>Lesson 1 - To take inspiration in design throughout history -use research to discuss a range of relevant products that respond to changes in the environment using a computer controlled programmes such as automatic night lights, alarm systems, security lighting.</p>		<p><u>Structures Shell structures - making a Viking house for model village of a Viking settlement</u></p> <p>Lesson 1 - To take inspiration from design throughout history - To investigate and make annotated drawings of a range of Viking structures. What methods of construction were used? How does the frame structure meet the needs and purposes? How has the framework been strengthened? Reinforced?</p> <p>Lesson 2 - To master practical skills by cutting safely and measuring accurately - To make different frameworks,</p>

Design and Technology MTP 2022-2023



		<p>label ingredients used linked to photo.</p> <p>Lesson 3 - To take inspiration from designs throughout history (to create and refine a recipe) Children to design their own Mayan inspired dish - taking inspiration from lessons 1 and 2.</p> <p>Lesson 4 and 5- To master practical skills (to demonstrate a range of cooking techniques and refine a recipe) children to make their Mayan dish. To then taste their dish and evaluate it ready to improve next week.</p>		<p>Lesson 2 and 3 - To master practical skills - to explore a range of electrical systems that can be used to control their product, simple series circuit, a series circuit with two output devices and parallel circuits with two output devices and two separate switches. Children to practice methods for secure electrical connections.</p> <p>Lesson 4- To design, make, evaluate and improve - To design a burglar alarm for our school site manager - children to annotate a circuit that they will use and label it with the electrical components and how they would work it as a system with input process, output, list of tools and equipment needed.</p> <p>Lesson 5 - To master practical skills - Children to make their product.</p> <p>Lesson 6 - To design, make, evaluate and</p>		<p>cubes, cuboids, pyramids etc- use of triangulation to add strength to the structure. Evaluate things that work and do not work. Experiment with sawing materials.</p> <p>Lesson 3 - To design, make, evaluate and improve (design with the user in mind) Design on Viking building incorporating the techniques. Step by step plan- listing materials, sketches from different viewpoints, tools and relate to success criteria.</p> <p>Lesson 4 and 5 - To master practical skills (develop a range of practical skills to develop a product) To make the structure using design and step by step. Wooden frame at the bottom and straw for the rest. To develop sawing skills.</p> <p>Lesson 6 - To design, make, evaluate and improve my final product - Evaluate the structures</p>
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Design and Technology MTP 2022-2023



				<p>improve -Evaluate final product - comparing to the original design specification and test it. Test effectiveness for intended user and purpose.</p>		<p>against the criteria and create the class village, including key features of a Viking settlement including rivers- as a team.</p>
<p>Links to National Curriculum</p>	<p><u>Design</u></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><u>Make</u></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><u>Evaluate</u></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>Skills</p>	<p><u>Technical knowledge</u></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. 					



Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. Pupils should be taught to: Key stage 2

- * 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

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Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic of the term						
<u>Year 6</u>						



D&T unit					
	<p>1. The Design Criteria To 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 in the context of creating a design criteria for a mobile phone case.</p> <ul style="list-style-type: none"> • I can write a design criteria for a mobile phone case. <hr/> <p>2. Designs To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams in the context of making a paper template for a mobile phone case.</p> <ul style="list-style-type: none"> • I can generate a range of design ideas and clearly communicate my final design. <hr/> <p>3. Making a Template To generate, develop and communicate their ideas through discussion, prototypes and pattern pieces in the context of making a paper template for a mobile phone case.</p> <ul style="list-style-type: none"> • I can make a paper template. <hr/> <p>4. Selecting Stitches To generate, develop, model and communicate their ideas through prototypes in the context of practising different stitches to inform the final design.</p> <ul style="list-style-type: none"> • I can practise using different types of stitches and choose the best one to use on my final felt phone case. <hr/> <p>5. Step by Step Plan To generate, develop, model and communicate their ideas through discussion and annotated sketches in the context of creating a step by step plan to communicate the making process.</p> <ul style="list-style-type: none"> • I can organise my ideas in a step by step plan. <hr/> <p>6. Decoration and Fastenings To select from and use a wider range of materials and components, including textiles, according to their functional properties and aesthetic qualities in the context of selecting decorative techniques and fastenings for felt phone cases.</p> <ul style="list-style-type: none"> • I can select decorative techniques and fastenings according to their functional properties and aesthetic qualities. <p>To evaluate their ideas and products against their own design criteria in the context of evaluating a felt phone case against a design criteria created.</p> <ul style="list-style-type: none"> • I can evaluate my product. 		<p>1. Amazing Animals 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 in the context of researching animals that will be used in their mechanical models.</p> <ul style="list-style-type: none"> • I can research ideas about different animals to inform my design. <hr/> <p>2. Cams and Followers Understand and use mechanical systems in their products (for example cams) in the context of understanding how cams can be used to make a model move.</p> <ul style="list-style-type: none"> • I can explain how simple cam mechanisms work. <hr/> <p>3. Exploring Cam Movement Understand and use mechanical systems in their products (for example cams) in the context of understanding how changing the shape of the cam changes the movement of the follower.</p> <ul style="list-style-type: none"> • I can research ideas about different animals to inform my design. <p>Select from and use a wider range materials and components, including construction materials according to their functional properties and aesthetic qualities in the context of selecting materials to make a simple cam mechanism.</p> <ul style="list-style-type: none"> • I can select materials according to their functional properties. <hr/> <p>4. Designing Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at individuals or groups in the context of developing design criteria for the Automata Animals.</p> <ul style="list-style-type: none"> • I can use research and develop design criteria to inform my design. <hr/> <p>5. Making a Framework Select from and use a wider range of tools and equipment to perform practical tasks (for example cutting, shaping, joining and finishing), accurately in the context of using tools and equipment to perform the job of cutting, joining and finishing wood to make a frame.</p> <ul style="list-style-type: none"> • I can build a framework, accurately using a wider range of tools and equipment. <hr/> <p>6. Using Mechanical Systems Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work in the context of evaluating the product design.</p> <ul style="list-style-type: none"> • I can evaluate my product. <p>Understand and use mechanical systems in their products in the context of using a cam mechanism to make a model of an animal move.</p> <ul style="list-style-type: none"> • I can understand and use a mechanical system. 		<p>1. Seasonal Calendar Understand seasonality in the context of when fruit and vegetables are in season in Britain.</p> <ul style="list-style-type: none"> • I can explain what seasonality means and know when different fruit and vegetables are in season in the United Kingdom. <hr/> <p>2. Reared, Caught and Processed Food Understand seasonality and know where and how a variety of ingredients are reared caught and processed in the context of where food is reared, caught and processed in the United Kingdom.</p> <ul style="list-style-type: none"> • I can explain where, when and how a variety of ingredients are reared, caught and processed. <hr/> <p>3. Tasting Seasonal Food To understand seasonality in the context of tasting food that is in season.</p> <ul style="list-style-type: none"> • I can taste and evaluate seasonal foods and recognise that sometimes we need to try a new food a few times to find out if we like it. <hr/> <p>4. Plate Proportions and Protein Understand and apply the principles of a healthy and varied diet in the context of the importance of protein in the diet.</p> <ul style="list-style-type: none"> • I can explain the importance of protein as a proportion of a healthy varied diet. <hr/> <p>5. Design a Seasonal Meal Select from a wider range of ingredients, according to their functional properties and aesthetic qualities in the context of selecting ingredients for a seasonal meal. Consider the views of others to improve their work in the context of improving their design for a seasonal meal.</p> <ul style="list-style-type: none"> • I can work as a group to generate, evaluate and refine recipe ideas. <p>Generate, develop, model and communicate their ideas through discussion and annotated sketches in the context of designing a healthy seasonal meal.</p> <ul style="list-style-type: none"> • I can take feedback and improve my designs. <hr/> <p>6. Making and Evaluating 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. Evaluate their products against their own design criteria in the context of evaluating their seasonal meal.</p> <ul style="list-style-type: none"> • I can explain how to correctly store and handle meat and fish. • I can prepare, cook and evaluate a healthy seasonal meal.



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