

Term and topic	DT OVERVIEW - YEAR R - linked to skills progression document		Skills and ideas	Rationale
Both of these elements of DT are on-going as continuous provision throughout the year.	Understanding the World (Technology)	<p>30-50 months</p> <ul style="list-style-type: none"> • Knows how to operate simple equipment. • Shows an interest in technological toys with knobs or pulleys, or real objects. • Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. <p>40-60+ months</p> <ul style="list-style-type: none"> • Completes a simple program on a computer. • Interacts with age-appropriate computer software. <p>ELG</p> <p>Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.</p>	<ul style="list-style-type: none"> • 2simple paint programme used for creative activities • Jolly phonics programme used to play interactive phonics games • Espresso used for interactive games • Use of technological toys and games 	<p>EYFS gives all children the opportunity to learn through a wide variety of first-hand experiences. They will be encouraged to explore, observe, solve problems, think critically, and make decisions and to talk about why they have made their decisions. Continuous provision provides all children with a rich variety of daily DT opportunities. Pupils learn to construct with a purpose in mind and are encouraged to modify their initial ideas to make them better. Children learn how to use a range of tools and resources such as scissors, glue, a hole punch, tape, a stapler, elastic bands etc Children have the opportunity to explore structure and joins by building towers and other structures out of small wooden bricks or similar construction kits.</p>
	Expressive Arts and design (Exploring and Using Media and Materials)	<p>30-50 months</p> <ul style="list-style-type: none"> • Explores colour and how colours can be changed • Understands that they can use lines to enclose a space, 	<ul style="list-style-type: none"> • Junk modelling to make rockets, castles, a boat for the gingerbread man 	

		<p>and then begin to use these shapes to represent objects.</p> <ul style="list-style-type: none"> • Beginning to be interested in and describe the texture of things. • Uses various construction materials. • Beginning to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces. • Joins construction pieces together to build and balance. • Realises tools can be used for a purpose. <p>40-60+ months</p> <ul style="list-style-type: none"> • Understands that different media can be combined to create new effects. • Manipulates materials to achieve a planned effect. • Constructs with a purpose in mind, using a variety of resources. • Uses simple tools and techniques competently and appropriately. • Selects appropriate resources and adapts work where necessary. • Selects tools and techniques needed to shape, assemble and join materials they are using. 	<ul style="list-style-type: none"> • Playdoh used to make bread rolls for the little red hen, minibeast, aliens, counting activities, • Clay used for manipulation skills, Diwali lamps • Use of construction kits eg Lego, sticklebricks, magnetix, k'nex, mobile, popoids • Plasticine • Cutting and sticking • Weaving • Threading • Building blocks 	<p>Throughout Year R the children will get experience of using different simple cooking techniques such as stirring, mixing, blending and pouring. Some of our cooking activities include making bread rolls, decorating firework biscuits and making Easter nests. Children will have many opportunities to explore by dismantling things and learn about how everyday objects work and what different parts are made out of. Through discussion, children are introduced to important elements of DT such as safety and hygiene. They will also learn to record some of their experiences by drawing and labelling.</p> <p>Other opportunities that hone DT skills in Year R include:</p> <p>Sorting objects by different criteria.</p>
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		<p>ELG Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>		<p>Noticing and discussing materials around them.</p> <p>Using the language of designing and making, for example words such as 'join', 'build' and 'shape'. And use evaluative and comparative language - 'longer', 'shorter', 'lighter', 'heavier' and 'stronger'.</p> <p>Encouraging and supporting the use of a range of tools, such as scissors, hole punch, stapler, glue spreader, rolling pin, cutter and grater.</p>
Term and topic	DT OVERVIEW - YEAR 1 - linked to skills progression document		Skills and ideas	Rationale
Autumn Once Upon a Time	<p>Designing Design - purposeful, functional, appealing products for themselves and other users based on design criteria Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Making</p>	<ul style="list-style-type: none"> • use own ideas to design something and describe how their own idea works • design a product which moves • explain to someone else how they want to make their product and make a simple plan before making 	Design puppets using drawings and labels.	The design element of this unit builds on simple drawing and labelling work practised in EYFS. Pupils have already had experience in simple threading and weaving activities during EYFS. They are developing this skill by using it purposefully to join together two pieces of fabric. The fabric

	<p>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluating explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p> <p>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> <p>Food technology use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from</p>	<ul style="list-style-type: none"> • use own ideas to make something • make a product which moves • choose appropriate resources and tools <ul style="list-style-type: none"> • describe how something works • explain what works well and not so well in the model they have made <ul style="list-style-type: none"> • make their own model stronger <ul style="list-style-type: none"> • cut food safely 	<p>Use simple running stitch to join fabric.</p> <p>Test out puppet to see if it moves.</p> <p>Explore different ways you can make your puppet move.</p>	<p>templates used are designed for purpose with pre-punched holes and pupils will further develop these simple sewing skills in Year 2 Autumn term.</p> <p>By the end of this unit all pupils should have a clear understanding of how textiles are joined and the tools needed to do this.</p>
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<p>Spring Dinosaurs</p>	<p>Designing Design - purposeful, functional, appealing products for themselves and other users based on design criteria Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Making 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> <p>Evaluating explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p> <p>Technical knowledge</p>	<ul style="list-style-type: none"> • use own ideas to design something and describe how their own idea works • design a product which moves • explain to someone else how they want to make their product and make a simple plan before making • use own ideas to make something • make a product which moves • choose appropriate resources and tools • describe how something works • explain what works well and not so well in the model they have made 	<p>Design a mini habitat for dinosaurs to live in by combining a variety of textured materials. Explain how you will structure this.</p> <p>Construct prehistoric landscapes by layering a range of materials.</p> <p>Explain how the dinosaur habitat looks realistic based on their knowledge.</p>	<p>Designing and building a mini habitat occurs again in Year 3 Autumn term. By designing a dinosaur habitat in Year 1, pupils have the opportunity to understand and explore how different materials can be used effectively to create textures and representations. Pupils are able to test new ways of joining materials and explore ways to stabilise and strengthen their mini habitats. This prepares children for the more challenging task in Year 3 of creating a cityscape.</p>
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	<p>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> <p>Food technology use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from</p>	<ul style="list-style-type: none"> • make their own model stronger • cut food safely 	<p>Make the dinosaur habitats more stable by using strengthening materials such as mod roc</p>	
<p>Summer Kings and Queens</p>	<p>Designing Design - purposeful, functional, appealing products for themselves and other users based on design criteria Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Making 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</p>	<ul style="list-style-type: none"> • use own ideas to design something and describe how their own idea works • design a product which moves • explain to someone else how they want to make their product and make a simple plan before making • use own ideas to make something • make a product which moves • choose appropriate resources and tools 	<p>Plan a healthy dish to eat using fruit or vegetables.</p> <p>Choose appropriate tools to cut fruit and explain reasons behind choice.</p>	<p>Children should be aware, from Year R cooking activities, basic rules of washing hands before food preparation. This is extended during this unit to washing fruit and the children should develop an understanding of why this is important. This unit of work enables pupils to develop their understanding of different food sources and learn about how food is changed in preparation for consumption. Children are taught to, and have the opportunities to, use simple kitchen utensils safely and independently</p>

	<p>ingredients, according to their characteristics</p> <p>Evaluating explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p> <p>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> <p>Food technology use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from</p>	<ul style="list-style-type: none"> • describe how something works • explain what works well and not so well in the model they have made • make their own model stronger • cut food safely 	<p>Taste the fruit salad and explain what you like and dislike about it.</p> <p>Understand how to cut safely using a knife and be able to manipulate this effectively.</p> <p>Make fruit salad by cutting the fruit using a knife. Be able to follow basic food hygiene. Be able to explain where fruit used may come from.</p>	<p>eg using the bridge claw grasp effectively when using a knife. This build their confidence in preparation for Year 3 when their understanding of food technology is further developed as they learn about alternative ways to prepare food for consumption.</p>
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Term and topic	DT OVERVIEW - YEAR 2 - linked to skills progression document	Skills and ideas	Rationale
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<p>Autumn Superheroes</p>	<p>Designing Design - purposeful, functional, appealing products for themselves and other users based on design criteria Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Making 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> <p>Evaluating explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p>	<ul style="list-style-type: none"> • think of an idea and plan what to do next • explain why they have chosen specific textiles • choose tools and materials and explain why they have chosen them • join materials and components in different ways • measure materials to use in a model or structure • explain what went well with their work 	<p>Design a superhero cape. Decide which properties the cape would need. Draw and label designs justifying choices based on research and evidence of existing capes superheroes wear - colour, purpose etc. (NB: Sewing Christmas stockings for the school fair is also completed this term)</p> <p>Decide which materials would be best to make superhero capes. Think about the properties the capes should have.</p> <p>Do the capes attach successfully. Do they have flying properties (floaty fabrics).</p>	<p>This unit build on the children's experience of sewing in Year 1 by exploring different textiles and their suitability for purpose (which prepares them for their Spring DT unit when they have to choose the most suitable material to make a floating boat). Within the unit children experience cutting and sewing different fabrics more independently, without pre-marked holes. All children practise using simple methods to attach their capes together, a skill which will be built upon during further textile work later in KS2.</p>
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	<p>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> <p>Food technology use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from</p>	<ul style="list-style-type: none"> • make a model stronger and more stable • use wheels and axles, when appropriate to do so • weigh ingredients to use in a recipe • describe the ingredients used when making a dish or cake 	<p>Test different materials for their lightness and air resistance by making simple parachutes.</p> <p>N/A</p>	
<p>Spring All around the World</p>	<p>Designing Design - purposeful, functional, appealing products for themselves and other users based on design criteria Design - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Making 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</p>	<ul style="list-style-type: none"> • think of an idea and plan what to do next • explain why they have chosen specific textiles • choose tools and materials and explain why they have chosen them • join materials and components in different ways 	<p>Design a floating boat. Explore materials that will float and are waterproof.</p> <p>Decide methods you will use to cut your materials and the tools you will use. Think about the shape of the boat.</p>	<p>Building on the children's knowledge of materials, they now have the opportunity to explore a range of solid materials and develop their understanding of Design and Technology language such as durability, waterproof, flexibility, buoyancy etc. These terms will be further reinforced during the Cracking Contraptions unit of work in Summer term. Pupils also have the opportunity to use more sophisticated DT</p>

	<p>materials, textiles and ingredients, according to their characteristics</p> <p>Evaluating explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p> <p>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> <p>Food technology use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from</p>	<ul style="list-style-type: none"> • measure materials to use in a model or structure • explain what went well with their work • make a model stronger and more stable • use wheels and axles, when appropriate to do so • weigh ingredients to use in a recipe • describe the ingredients used when making a dish or cake 	<p>Test the boats to see if they float. See if the boats are capable of carrying something on the water.</p> <p>Test different materials eg balsa wood, plastic etc for buoyancy and strength and waterproof properties.</p> <p>N/A</p>	<p>tools such as saws, glue guns and sand paper, which enables them to construct with greater accuracy and refine their final designs. The development of these skills will be essential as they move into KS2 and design and make more complex structures.</p> <p>This unit lends itself to developing the children's evaluation skills; as a whole class they can devise a way to test the boats' buoyancy and consider improvements that could be made.</p>
<p>Summer Cracking Contraptions</p>	<p>Designing Design - purposeful, functional, appealing products for themselves and other users based on design criteria Design - generate, develop, model and communicate their ideas through talking,</p>	<ul style="list-style-type: none"> • think of an idea and plan what to do next • explain why they have chosen specific textiles 	<p>Design a moving vehicle. Look at a range of existing moving vehicles and explore design criteria that enables them to move. Explain what you could</p>	<p>The children are familiar with many of the elements required to build a moving vehicle from their spring term work. This</p>

	<p>drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Making 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> <p>Evaluating explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p> <p>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>	<ul style="list-style-type: none"> • choose tools and materials and explain why they have chosen them • join materials and components in different ways • measure materials to use in a model or structure • explain what went well with their work • make a model stronger and more stable • use wheels and axles, when appropriate to do so 	<p>use to make your vehicle move.</p> <p>Construct simple wheels and axles using dowling rods and cotton reels and explore ways to attach these to a stable base.</p> <p>Explore whether the vehicle moves smoothly. Test to see if it could carry a passenger. Consider changes/improvements.</p> <p>Consider whether the axles are stable and effective in manoeuvring the vehicle. Make sure they are fixed in place securely using a</p>	<p>activity enables them to consolidate these skills and knowledge in readiness for KS2. Pupils are introduced to more technical language such as wheels, axles, stable and manoeuvre. They explore methods of attaching component parts effectively and can devise their own simple ways to test their vehicles and think of improvements that ensure they have achieved their design effectively.</p>
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	<p>Food technology use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from</p>	<ul style="list-style-type: none"> weigh ingredients to use in a recipe describe the ingredients used when making a dish or cake 	<p>mouldable material such as plasticine or blu tac.</p> <p>N/A</p>	
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Term and topic	DT OVERVIEW - YEAR 3 - linked to skills progression document		Skills and ideas	Rationale
<p>Autumn Ancient Egyptians</p>	<p>Designing 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>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p>	<ul style="list-style-type: none"> prove that a design meets a set criteria. design a product and make sure that it looks attractive choose a material for both its suitability and its appearance follow a step-by-step plan, choosing the right equipment and materials select the most appropriate tools and techniques for a given task 	<p>Design a pharaoh mask based on historical research. Draw plans thinking about the shape and patterns required and materials that would be suitable for this.</p> <p>Consider different ways of achieving the 3d spherical shape of the mask eg balloons. Explore ways these could be adapted to achieve a more desirable shape using simple methods</p>	<p>Pupils are already familiar with various techniques to manipulate materials to achieve a desired effect from their work in KS1. They now develop this into using new materials to form into a specific shape. Pupils particularly concentrate on materials that strengthen unstable structures, and are able to experience applying these. In the Summer term children will, have further opportunities to refine these skills</p>

	<p>Evaluating 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> <p>Technical Knowledge 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>	<ul style="list-style-type: none"> • make a product which uses both electrical and mechanical components • work accurately to measure, make cuts and make holes • explain how to improve a finished model • know why a model has, or has not, been successful • know how to strengthen a product by stiffening a given part or reinforce a part of the structure • use a simple IT program within the design 	<p>such as cardboard and masking tape.</p> <p>Compare the finished mask with those you have researched. Consider whether the shapes, patterns and colours have been accurately represented.</p> <p>Exploring and testing different ways of strengthening unstable materials such as inflated balloons into strong and stable structures (mod roc or paper mache).</p>	<p>when they construct Tudor houses. Pupils are given the opportunity to finish their masks in an authentic way. This prepares them for Summer term when they use similar skills to authenticate their Tudor houses.</p>
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	<p>Food technology 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>	<ul style="list-style-type: none"> • describe how food ingredients come together • weigh out ingredients and follow a given recipe to create a dish • talk about which food is healthy and which food is not • know when food is ready for harvesting 	N/A	
<p>Spring James and the Giant Peach</p>	<p>Designing 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>	<ul style="list-style-type: none"> • prove that a design meets a set criteria. • design a product and make sure that it looks attractive • choose a material for both its suitability and its appearance 	<p>Design a miniature London landscape. Choose a suitable base for you to scale your landscape into eg a shoebox. Consider different landmarks that could be included by researching pictures during ict. Explore different nets that could be used to create these landmarks in 3d. Design the landscape in 2d.</p> <p>Light and shadows DT activity linked to science Design a torch. Consider different components of a torch and the ways in which the torch could</p>	<p>This builds on children's KS1 experience of making miniature habitats. Children now extend their skills by exploring and creating nets to produce the 3d structures needed for this task and finding ways to connect these securely to their base. Children will begin to understand how simple CAD programmes such as publisher, can enable accuracy in DT design and they have the opportunity to</p>

	<p>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p>	<ul style="list-style-type: none"> • follow a step-by-step plan, choosing the right equipment and materials • select the most appropriate tools and techniques for a given task • make a product which uses both electrical and mechanical components • work accurately to measure, make cuts and make holes 	<p>light up through diagrams and simple prototypes using circuits.</p> <p>Use nets to construct 3d models of the landmarks. Explore different joining techniques eg hinges and attaching columns to attach the 3d structures to the base. Consider the different scales of each building within your landscape - are they in proportion. Ensure the finish of each building is aesthetically accurate by using materials and colours that accurately represent each landmark.</p> <p>Light and shadows DT activity linked to science Test different circuits and how best to attach and conceal them within the main body of the torch. Use stable 3d structures as the main body eg cardboard tubes, plastic tubs etc. Consider the aesthetic quality of</p>	<p>discuss and understand this in designs they see in the world around them.</p> <p>This term also offers children their first opportunity to use simple circuits within their DT designs as they make simple torches. They use torch kits as a starting point and explore how each circuit is attached and connected within the body of the torch. The use of simple circuits within their designs should prompt the children to discuss and explore everyday DT objects around them that might have similar component parts. This work prepares pupils to understand the purpose simple circuits can have in a range of DT designs and they will later</p>
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	<p>Evaluating 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> <p>Technical Knowledge 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]</p>	<ul style="list-style-type: none"> explain how to improve a finished model know why a model has, or has not, been successful <ul style="list-style-type: none"> know how to strengthen a product by stiffening a given part or reinforce a part of the structure 	<p>the torch by finishing it attractively with patterned paper or paints.</p> <p>Compare the miniature London landscape to your initial research - are the buildings recognisable and how have you achieved this? Consider any structural improvements that could be made.</p> <p>Light and shadows DT activity linked to science Test the torches to see if they work in the dark. Consider any structural and functional improvements that could be made.</p> <p>Use publisher ict programme to construct simple nets of cubes, cuboids and cylinders. Explore different joining and strengthening techniques such as hinges.</p>	<p>build on this knowledge in Year 5.</p>
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	<p>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> <p>Food technology 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>	<ul style="list-style-type: none"> • use a simple IT program within the design • describe how food ingredients come together • weigh out ingredients and follow a given recipe to create a dish • talk about which food is healthy and which food is not • know when food is ready for harvesting 	<p>Light and shadows DT activity linked to science Making simple circuits using wires, bulbs and switches.</p> <p>N/A</p>	
<p>Summer Tudors</p>	<p>Designing 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>	<ul style="list-style-type: none"> • prove that a design meets a set criteria. • design a product and make sure that it looks attractive • choose a material for both its suitability and its appearance 	<p>Design a model of a Tudor house based on research. Draw and label plans for the house including materials and methods that are available to accurately represent the types of materials that Tudors may have used eg straw, wood, mouldable materials etc.</p>	<p>This unit combines and builds on both Autumn and Spring work. It gives children the chance to refine their measuring, joining and finishing skills with greater independence.</p>

	<p>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluating 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> <p>Technical Knowledge 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]</p>	<ul style="list-style-type: none"> • follow a step-by-step plan, choosing the right equipment and materials • select the most appropriate tools and techniques for a given task • make a product which uses both electrical and mechanical components • work accurately to measure, make cuts and make holes • explain how to improve a finished model • know why a model has, or has not, been successful • know how to strengthen a product by stiffening a given 	<p>Consider ways of constructing the frame of the house such as wire mesh for strengthening, and cardboard boxes for shape and stability, alongside plans for achieving the Tudor style on the exterior using materials such as mod roc and lolly sticks or white paper and paint.</p> <p>Compare the finished model house with those you have researched. Consider whether the shapes, materials and colours are accurately representative of Tudor materials.</p> <p>Use publisher ict programme to construct simple nets of cubes as</p>	
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	<p>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> <p>Food technology 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>part or reinforce a part of the structure</p> <ul style="list-style-type: none"> • use a simple IT program within the design • describe how food ingredients come together • weigh out ingredients and follow a given recipe to create a dish • talk about which food is healthy and which food is not • know when food is ready for harvesting 	<p>the initial design of the Tudor house.</p> <p>N/A</p>	
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Term and topic	DT OVERVIEW - YEAR 4 - linked to skills progression document		Skills and ideas	Rationale
Autumn Stone Age	<p>Designing 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>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluating investigate and analyse a range of existing products</p>	<ul style="list-style-type: none"> • use ideas from other people when designing • produce a plan and explain it • persevere and adapt work when original ideas do not work • communicate ideas in a range of ways, including by sketches and drawings which are annotated • know which tools to use for a particular task and show knowledge of handling the tool • know which material is likely to give the best outcome • measure accurately • evaluate and suggest improvements for design • evaluate products for both their 	<p>Research ingredients that were available to use during the Stone age. Consider how these could be combined and cooked and whether the ingredients would need to be measured accurately.</p> <p>Use tools and ingredients that reflect those available during the stone age eg oatmeal, stone-ground wheat flour, lard, sea salt water etc.</p> <p>Look at and compare the consistency, texture and taste of stone age breads made.</p>	<p>Children should recall basic food hygiene rules from KS1 as they begin this unit. A knowledge of food sources is key and this unit gives children the opportunity to understand further how food can be changed for consumption. Children extend their food technology skills by using different utensils and heat sources to cook. They will use a range of tools and be taught how to safely prepare food using the correct hand positions and techniques. This secures readiness for further food technology in Year 6. This unit also gives children the opportunity to be creative in their cooking whilst deepening their understanding of nutrition and health.</p>

	<p>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> <p>Technical Knowledge 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> <p>Food technology 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</p>	<p>purpose and appearance</p> <ul style="list-style-type: none"> • explain how the original design has been improved • present a product in an interesting way <ul style="list-style-type: none"> • links scientific knowledge by using lights, switches or buzzers • use electrical systems to enhance the quality of the product • use IT, where appropriate, to add to the quality of the product <ul style="list-style-type: none"> • know how to be both hygienic and safe when using food • bring a creative element to the food product being designed 	<p>Combining ingredients and using an oven.</p> <p>Think of a way to identify your stone age loaf creatively when you shape it. Work hygienically.</p>	<p>Learners will also have to bear in mind the limited technology of the stone age, constantly considering and evaluating these limitations throughout each step of this task.</p>
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	understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed			
Spring What a Wonderful World	<p>Designing 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>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluating investigate and analyse a range of existing products</p>	<ul style="list-style-type: none"> • use ideas from other people when designing • produce a plan and explain it • persevere and adapt work when original ideas do not work • communicate ideas in a range of ways, including by sketches and drawings which are annotated • know which tools to use for a particular task and show knowledge of handling the tool • know which material is likely to give the best outcome • measure accurately 	<p>Make a model of one of the seven wonders of the world based on research. Draw and label plans for your model including materials and methods that are available that will accurately represent the types of materials that might have originally been used.</p> <p>Work using a range of sturdy and malleable materials that can be successfully combined to achieve the desired effect.</p> <p>Consider whether the materials used to construct the wonder of the world is</p>	<p>By this stage children have accumulated much experience in making model representations. This unit allows children to work more skillfully and with greater autonomy. They are now very familiar with a variety of DT vocabulary and materials. They can handle tools safely and sketch, strengthen and stabilise materials. They now have the opportunity to hone this knowledge through more detailed cross sectional drawings and exploded diagrams, enabling pupils to apply greater accuracy to this project.</p>

	<p>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> <p>Technical Knowledge 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> <p>Food technology 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</p>	<ul style="list-style-type: none"> • evaluate and suggest improvements for design • evaluate products for both their purpose and appearance • explain how the original design has been improved • present a product in an interesting way <ul style="list-style-type: none"> • links scientific knowledge by using lights, switches or buzzers • use electrical systems to enhance the quality of the product • use IT, where appropriate, to add to the quality of the product <ul style="list-style-type: none"> • know how to be both hygienic and safe when using food 	<p>successful in creating the sense of impact and scale desired.</p> <p>Accurate measuring to create stable complex structures.</p> <p>N/A</p>	
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	understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed	<ul style="list-style-type: none"> bring a creative element to the food product being designed 		
Summer Romans	<p>Designing 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>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluating investigate and analyse a range of existing products</p>	<ul style="list-style-type: none"> use ideas from other people when designing produce a plan and explain it persevere and adapt work when original ideas do not work communicate ideas in a range of ways, including by sketches and drawings which are annotated know which tools to use for a particular task and show knowledge of handling the tool know which material is likely to give the best outcome measure accurately 	<p>Design and make Roman Shields. Look at pictures/artefacts of Roman shields. Consider the shape, size and purpose of the shield.</p> <p>Consider types of material that might have been used during combat and the decorative features typical of the Roman period. Think about how this could be best represented in your version of a shield.</p> <p>Compare the finished shield with those you have</p>	<p>This unit provided another opportunity to work independently with greater understanding of the design process as a whole - design, make and evaluate. Pupils will particularly focus on testing various ways to strengthen materials successfully. This unit enables pupils to particularly focus on developing competence at evaluating their product, and those of others, based on its suitability for purpose. They can consider improvements and alterations that will work practically and feasibly. Within this task all children have the opportunity to raise their aspirations and creativity when making</p>

	<p>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> <p>Technical Knowledge 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> <p>Food technology 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</p>	<ul style="list-style-type: none"> • evaluate and suggest improvements for design • evaluate products for both their purpose and appearance • explain how the original design has been improved • present a product in an interesting way <ul style="list-style-type: none"> • links scientific knowledge by using lights, switches or buzzers • use electrical systems to enhance the quality of the product • use IT, where appropriate, to add to the quality of the product <ul style="list-style-type: none"> • know how to be both hygienic and safe when using food • bring a creative element to the food 	<p>researched. Consider whether the shapes, materials and colours are accurately representative of Roman materials.</p> <p>Exploring ways of strengthening and stiffening products for a purpose.</p> <p>N/A</p>	<p>their shield - an experience in which some children may previously have had limited access. Learners will be more independent at using equipment safely and moving around the classroom in the safest way, managing risks on their own.</p>
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	understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed	product being designed		
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Term and topic	DT OVERVIEW - YEAR 5 - linked to skills progression document		Skills and ideas	Rationale
Autumn Victorians	<p>Designing 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>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p>	<ul style="list-style-type: none"> • come up with a range of ideas after collecting information from different sources • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience • design a product that requires pulleys or gears <ul style="list-style-type: none"> • use a range of tools and equipment competently • make a prototype before making a final version 	<p>Sew a Victorian sampler. Research the purpose of a sampler and look at examples of these. Create a design on paper for a simple sampler thinking about the different stitches that you could use.</p> <p>Use a needle and embroidery thread effectively to recreate your design on binca fabric.</p>	<p>This links to the Autumn term topic of Victorians. The children re-visit the needlework skills they developed in KS1. However, now they are building on their knowledge of running stitch by learning and practising a more sophisticated range of stitches. Binca fabric allows the children to follow clear lines in order to become confident at consistent stitching. This unit enables children to very clearly follow their initial design on paper and make associations between the look of the stitch and the</p>

	<p>Evaluating 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> <p>Technical Knowledge 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> <p>Food technology 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</p>	<ul style="list-style-type: none"> • make a product that relies on pulleys or gears • suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria • links scientific knowledge to design by using pulleys or gears • uses more complex IT program to help enhance the quality of the product produced • be both hygienic and safe in the kitchen 	<p>Consider whether the sampler accurately represents those of the Victorian period and whether the original designs have been followed accurately. Comment on what has gone well and what could be changed or improved.</p> <p>Practise different embroidery stitches including cross stitch, back stitch, running stitch, satin stitch and straight stitch.</p> <p>N/A</p>	<p>name of it. They will have time to evaluate the overall effect the different variety of stitches will have on the final product. The unit allows learners to gain new real hands on experiences in a calm learning environment.</p>
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	<p>understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed</p>	<ul style="list-style-type: none"> • know how to prepare a meal by collecting the ingredients in the first place • know which season various foods are available for harvesting 		
<p>Spring Destination: Outer Space!</p>	<p>Designing 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>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p>	<ul style="list-style-type: none"> • come up with a range of ideas after collecting information from different sources • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience • design a product that requires pulleys or gears <ul style="list-style-type: none"> • use a range of tools and equipment competently • make a prototype before making a final version 	<p>Design a model space rocket that has electric components such as buzzers or lights. Produce step-by-step plans of how you will construct the outer body of your rocket and how you will attach simple circuits to this.</p> <p>Test different circuits and how best to attach and conceal them within the main body of the rocket. Use stable 3d structures as the main body eg cardboard tubes, plastic tubs etc. Consider</p>	<p>Pupils further develop the technology skills using circuits that they were taught in Year 3. They build on their understanding of connecting one component to now using different components such as bulbs, buzzers and motors. This provides some preparation for similar skills required in adult life. This unit provides learners with a good opportunity to work collaboratively at a task, enhancing their communication skills and enabling the girls in particular, to feel empowered; showing them that they can</p>

	<p>Evaluating 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> <p>Technical Knowledge 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> <p>Food technology understand and apply the principles of a healthy and varied diet</p>	<ul style="list-style-type: none"> • make a product that relies on pulleys or gears • suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria • links scientific knowledge to design by using pulleys or gears • uses more complex IT program to help enhance the quality of the product produced 	<p>the aesthetic quality of the rocket by finishing it attractively with foil or metallic paints.</p> <p>Test the finished rockets to see if the electrical components work. Consider any structural and functional improvements that could be made.</p> <p>Making simple circuits using wires, bulbs, buzzers and switches.</p> <p>N/A</p>	<p>create/make innovative products. This is particularly important if they live in a society where there are a lack of positive role models in their lives especially female role models.</p>
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	<p>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed</p>	<ul style="list-style-type: none"> • be both hygienic and safe in the kitchen • know how to prepare a meal by collecting the ingredients in the first place • know which season various foods are available for harvesting 		
<p>Summer Island Invasion</p>	<p>Designing 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</p> <p>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>Making select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p>	<ul style="list-style-type: none"> • come up with a range of ideas after collecting information from different sources • produce a detailed, step-by-step plan • explain how a product will appeal to a specific audience • design a product that requires pulleys or gears <ul style="list-style-type: none"> • use a range of tools and equipment competently 	<p>Design and make a Viking longboat. Make detailed designs of your longboat including specific features and requirements based on research eg spacious, light, fast, and manoeuvrable. Consider the different materials and tools that will be needed to ensure the longboat is fit for purpose.</p> <p>Construct your longboat using floating materials eg balsa wood or plastic. Use saws, sandpaper and</p>	<p>In this unit, learners are required to meet specific criteria. They should identify the need for the longboat to be shaped in a particular way and demonstrate capability in meeting this need by designing effectively. The learners must be aware of real life issues from the Viking era that would have impacted the technology of boat building in the past. Children are given the opportunity to work both on their own and to collaborate with</p>

	<p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluating 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> <p>Technical Knowledge 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> <p>Food technology</p>	<ul style="list-style-type: none"> • make a prototype before making a final version • make a product that relies on pulleys or gears • suggest alternative plans; outlining the positive features and draw backs • evaluate appearance and function against original criteria • links scientific knowledge to design by using pulleys or gears • uses more complex IT program to help enhance the quality of the product produced 	<p>glue guns to shape the hull of the boat authentically.</p> <p>Test the hull for stability in water. Ensure the longboat floats and balances.</p> <p>Sawing, sanding and shaping materials. Using the glue gun to attach components securely.</p> <p>N/A</p>	<p>others, listening to other children's ideas and treating these with respect. They will demonstrate resilience throughout the unit, including as they critically evaluate their own final product and those of others.</p>
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	<p>understand and apply the principles of a healthy and varied diet</p> <p>prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed</p>	<ul style="list-style-type: none"> • be both hygienic and safe in the kitchen • know how to prepare a meal by collecting the ingredients in the first place • know which season various foods are available for harvesting 		
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Term and topic	DT OVERVIEW - YEAR 6 - linked to skills progression document	Skills and ideas	Rationale	
<p>Autumn</p> <p>World War</p>	<p>Designing</p> <p>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</p> <p>generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p>	<ul style="list-style-type: none"> • use market research to inform plans and ideas. • follow and refine original plans • justify planning in a convincing way • show that culture and society is considered in plans and designs 	<p>Read the story: Emergency cream and soya marzipan Christmas cakes in 1943.</p> <p>Consider ingredients in the recipes that needed to be replaced and what they were replaced with. Research simple sponge recipes then adapt these by designing a recipe for an eggless sponge. Consider how the rationed ingredients will be replaced whilst still making the sponge appealing to look at and eat.</p>	<p>This unit is an important one in empowering all children to take a lead in practical subjects. The boys in particular may have had limited experience in cooking and this unit teaches some basic baking skills and cooking methods which will add value to, and prepare them for the rigours and demands of adult life. The context of this unit requires all learners to be</p>

	<p>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluating 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> <p>Technical Knowledge 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]</p>	<ul style="list-style-type: none"> • know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for • explain why a specific tool is best for a specific action <ul style="list-style-type: none"> • know how to test and evaluate designed products • explain how products should be stored and give reasons • evaluate product against clear criteria <ul style="list-style-type: none"> • use electrical systems correctly and accurately to enhance a given product • know which IT product would 	<p>Use a range of kitchen equipment such as whisks and weighing scales with knowledge and purpose, to combine ingredients into a cake mix. Understand how to operate the oven to bake the cake successfully.</p> <p>Look at and compare the consistency, texture and taste of the eggless sponges with regular sponge cakes.</p> <p>Combining ingredients using a raising agent using whisking and folding techniques.</p>	<p>resourceful, creative and resilient, reflecting the wartime spirit and accessibility to ingredients. They will be required to show accuracy in the measurement of weights, timings and temperatures. Learners will develop an understanding of how several technology factors combined can have an impact on aesthetic outcomes and social implications.</p>
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	<p>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> <p>Food technology 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>further enhance a specific product</p> <ul style="list-style-type: none"> • use knowledge to improve a made product by strengthening, stiffening or reinforcing • explain how food ingredients should be stored and give reasons • work within a budget to create a meal • understand the difference between a savoury and sweet dish 	<p>Ensure the rationing budget is adhered to when creating your sponges. Discuss whether a wartime diet was healthy compared to our diets today.</p>	
<p>Spring Greeks</p>	<p>Designing 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>	<ul style="list-style-type: none"> • use market research to inform plans and ideas. • follow and refine original plans • justify planning in a convincing way • show that culture and society is considered in plans and designs 	<p>Look at pictures of vases from ancient Greece and identify key features that need to be included to make designs authentically Greek. Explore different ways of moulding the clay to build up height eg coiling and include these methods on plans. Explore different effects that can be created in the clay using mark making tools to carve and etch patterns and pictures.</p>	<p>This unit enables learners to appreciate what life was like in ancient Greece and develop an awareness of the fact that, although life has changed, there are still some similarities that can be drawn between Greek technologies and some of the modern day technology we</p>

	<p>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluating 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> <p>Technical Knowledge 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]</p>	<ul style="list-style-type: none"> • know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for • explain why a specific tool is best for a specific action • know how to test and evaluate designed products • explain how products should be stored and give reasons • evaluate product against clear criteria • use electrical systems correctly and accurately to enhance a given product • know which IT product would further enhance a specific product 	<p>Use clay and mark making tools to mould, shape and style Greek vases.</p> <p>Compare the finished vases with those you have researched. Consider whether the shapes, patterns and colours have been accurately represented.</p> <p>Practise a variety of hand building techniques using clay such as pinch pottery, coil building, and slab building. Practise engraving repeating patterns and pictures into clay using different mark making tools.</p>	<p>encounter. Learners will be able to simulate some of the resourceful skills the Greeks used in shaping clay into functional utensils when other materials were not available. Pupils will understand that the pictures on the clay pots were the Greeks' way of recording everyday life and events and this gives pupils the opportunity to track the technological advances that have been made in this area since Greek times. There are many challenges that the children will encounter and need to persevere at and overcome within this unit, such as ensuring the clay vases are strong enough to take the weight of the handles. Pupils will be able to identify very easily whether the vases they make meet the</p>
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	<p>apply their understanding of computing to program, monitor and control their products.</p>	<ul style="list-style-type: none"> • use knowledge to improve a made product by strengthening, stiffening or reinforcing 		<p>required criteria - are they solid (authentic Greek vases were virtually indestructible) and do they convey sufficient evidence about everyday life.</p>
<p>Summer On Top of the World</p>	<p>Designing 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>Making 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 wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p>	<ul style="list-style-type: none"> • use market research to inform plans and ideas. • follow and refine original plans • justify planning in a convincing way • show that culture and society is considered in plans and designs • know which tool to use for a specific practical task • know how to use any tool correctly and safely • know what each tool is used for 	<p>Make a pencil case (or another object that fits the brief) with a fastening. Plan the shape of the fabric so it will function successfully to hold pencils and consider the type of fabric you will use. Make drawings of how you will fold the fabric so it is functional and examine different fabric fastenings and decide which would be most suitable. Consider the correct order to carry out each stage successfully. <i>Activity idea: make an element of the pencil case sustainable or recyclable. If making another object - could it be eco-friendly?</i> <i>Link with the topic.</i></p>	<p>This unit provides an appropriate end point for the learners' primary DT experiences as they are tasked with designing and making a product that is innovative and functional whilst being appealing and fit for purpose - the pencil case is a product the children can take with them and use as they move onto secondary education. The challenge of being inspired with such a motive should enable the children to make the best of their learning whilst working in a relevant context</p>

	<p>Evaluating 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> <p>Technical Knowledge 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>	<ul style="list-style-type: none"> • explain why a specific tool is best for a specific action • know how to test and evaluate designed products • explain how products should be stored and give reasons • evaluate product against clear criteria • use electrical systems correctly and accurately to enhance a given product • know which IT product would further enhance a specific product • use knowledge to improve a made product by strengthening, stiffening or reinforcing 	<p>Cut the fabric to the correct shape and sew up the sides using simple running stitch. Add an appropriate fastening and any embellishments.</p> <p>Consider whether the original pencil case designs have been followed accurately. Comment on what has gone well and what could be changed or improved. Consider whether the pencil case is fit for purpose and holds the contents securely.</p> <p>Use needle and thread effectively. Use measuring and cutting skills accurately.</p>	<p>and utilising essential life skills. The pupils will need to apply the repertoire of knowledge, understanding and skills they have accumulated. They should be able to recall the different stitches they were taught in Year 5 and decide which would make the most secure join, justifying their choices. This prepares them for the increased autonomy and independence they will need to adapt to when they move on to secondary school. Children will already understand that many fabric products are created by joining several pieces of fabric together from their sewing experiences in KS1. They are now required to do this with increased accuracy and independence. This is a life skill which is</p>
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				intended to have a positive impact on all children inspiring them to be resourceful and creative and find solutions to problems they encounter with confidence and independence.
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