



Where
CURIOSITY
HATCHES,
creativity takes *flight* and *learning* SOARS
TO A SKY OF
opportunity.

Design Technology

Year 1 Autumn	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion project: Shade and Shelter</p> <p>This project teaches children about the purpose of shelters and their materials. They name and describe shelters and design and make shelter prototypes. Children then design and build a play den as a group and evaluate their completed product.</p>	<p>Investigating shelters</p> <p>P. of Study Design and technology Evaluate 5 Explore and evaluate a range of existing products.</p> <p>Knowledge Year 1 Everyday products are objects that are used routinely at home and school, such as a toothbrush, cup or pencil. All products are designed for a specific purpose.</p> <p>Knowledge Year 1 Two products can be compared by looking at a set of criteria and scoring both products against each one.</p> <p>Specific knowledge Year 1 A shelter is a structure designed to give protection from weather or danger. A bus shelter, office block, garage, carport, tent, bird table, shed, conservatory, house, kennel and caravan are all examples of shelters. A shelter can be permanent, like a house or garage, or temporary, like a tent or gazebo.</p> <p>Skill Year 1 Name and explore a range of everyday products and describe how they are used. View progression</p> <p>Skill Year 1 Describe the similarities and differences between two products</p>	<p>Properties of material</p> <p>P. of Study Science</p> <p>4 Year 1 Materials Distinguish between an object and the material from which it is made.</p> <p>4 Year 1 Materials Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</p> <p>Knowledge</p> <p>Year 1 A material is what an object is made from. Everyday materials include wood, plastic, glass, metal, water, rock, brick, paper and fabric.</p> <p>Skill(s) Year 1 Identify and name what an object is made from, including wood, plastic, glass, metal, water and rock.</p>	<p>Designing shelters</p> <p>P. of Study Design and technology</p> <p>4 Year 1 Design Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>4 Year 1 Design Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>Knowledge</p> <p>Year 1 Design criteria are the explicit goals that a project must achieve.</p> <p>Skill(s) Year 1 Create a design to meet simple design criteria.</p>	<p>Building prototype shelters</p> <p>P. of Study Design and technology</p> <p>3 Year 1 Make Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p>10 Year 1 Technical Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Knowledge Year 1 Different materials are suitable for different purposes, depending on their specific properties. For example, glass is transparent, so it is suitable to be used for windows.</p> <p>Year 1 Different materials can be used for different purposes, depending on their properties. For example, cardboard is a stronger building material than paper. Plastic is light and can float. Clay is heavy and will sink.</p> <p>Year 1 A structure should have strong, sturdy supports that are joined so that they do not move. The roof and walls should have a covering for protection against the weather, and there should be an entry point.</p> <p>Skill(s) Year 1 Select and use a range of materials, beginning to explain their choices. View progression</p> <p>Year 1 Construct simple structures, models or other</p>	<p>Designing a play den</p> <p>P. of Study Design and technology</p> <p>4 Year 1 Design Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>4 Year 1 Design Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>3 Year 1 Make Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p>Knowledge</p> <p>Year 1 Design criteria are the explicit goals that a project must achieve.</p> <p>Year 1 Different materials are suitable for different purposes, depending on their specific properties. For example, glass is transparent, so it is suitable to be used for windows.</p> <p>Year 1 A play den is a shelter, usually built outside. It is a temporary structure made from found or readily available materials. It can be used for imaginative play or to provide protection from the weather.</p>	<p>Building a play den</p> <p>P. of Study Breadth Design and technology</p> <p>2 Year 1 Aims Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.</p> <p>10 Year 1 Technical Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Knowledge</p> <p>Year 1 Rules are made to keep people safe from danger. Safety rules include always listening carefully and following instructions, using equipment only as and when directed, wearing protective clothing if appropriate and washing hands before touching food.</p> <p>Year 1 Different materials can be used for different purposes, depending on their properties. For example, cardboard is a stronger building material than paper. Plastic is light and can float. Clay is heavy and will sink.</p> <p>Skill(s)</p> <p>Year 1 Follow the rules to keep safe during a practical task. View progression</p> <p>Year 1 Construct simple structures, models or other</p>

				products using a range of materials.	<p>Skill(s) Year 1 Create a design to meet simple design criteria. View progression</p> <p>Year 1 Select and use a range of materials, beginning to explain their choices.</p>	products using a range of materials
Year 1 Spring	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion Project: Taxi</p> <p>This project teaches children about wheels, axles and chassis and how they work together to make a vehicle move.</p>	<p>Companion Project Taxi</p> <p>Lesson 1 & Lesson 2 to be carried out over a whole afternoon</p> <p>(Experimenting / exploring axels)</p> <p>P. of Study Design and technology Technical 2 Explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products.</p> <p>Knowledge Year 1 An axle is a rod or spindle that passes through the centre of a wheel to connect two wheels.</p> <p>Specific knowledge Year 1 Most vehicles that move on land have axles and wheels that are fixed to a chassis.</p> <p>Skill Year 1 Use wheels and axles to make a simple moving model</p> <p>P. of Study Design and technology Evaluate 5 Explore and evaluate a range of existing products.</p> <p>Knowledge Year 1 Two products can be compared by looking at a set of criteria and scoring both products against each one.</p> <p>Specific knowledge Year 1 Axles and wheels can be attached to chassis in different ways: an axle fixed to a chassis has</p>	<p>Companion Project Taxi</p> <p>Lesson 3 & Lesson 4 to be carried out over a whole afternoon</p> <p>(design & make)</p> <p>P. of Study Design and technology</p> <p>4 Year 1 Design Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>4 Year 1 Design Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>Knowledge Year 1 Design criteria are the explicit goals that a project must achieve.</p> <p>Skill(s)</p> <p>Year 1 Create a design to meet simple design criteria</p> <p>P. of Study Design and technology Technical 2 Explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products.</p> <p>Knowledge Year 1 An axle is a rod or spindle that passes</p>				

	<p>freely moving wheels, whereas a freely moving axle has fixed wheels.</p> <p>Skill Year 1 Describe the similarities and differences between two products.</p>	<p>through the centre of a wheel to connect two wheels.</p> <p>Skill Year 1 Use wheels and axles to make a simple moving model.</p>				
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Year 1 Summer	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion Project: Chop, Slice and Mash.</p> <p>This project teaches children about sources of food and the preparatory skills of peeling, tearing, slicing, chopping, mashing and grating. They use this knowledge and techniques to design and make a supermarket sandwich according to specific design criteria.</p>	<p>P. of Study Design and technology Food 1 Understand where food comes from.</p> <p>Knowledge Year 1 Some foods come from animals, such as meat, fish and dairy products. Other foods come from plants, such as fruit, vegetables, grains, beans and nuts.</p> <p>Skill Year 1 Sort foods into groups by whether they are from an animal or plant source.</p>	<p>P. of Study Design and technology 2 Year 1 Make Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).</p> <p>P. of Study Breadth Science 1 Year 1 Aims Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p> <p>P. of Study RHE - Health education 1 Year 1 Health Know about personal hygiene and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing.</p> <p>Knowledge Year 1 Specific tools are used for particular purposes. For example, scissors are used for cutting and glue is used for sticking.</p> <p>Year 1 Hand washing and good hygiene are important parts of a healthy lifestyle and prevent the spread of germs.</p> <p>Year 1 Knives are used for slicing and chopping, a grater is used for grating, a vegetable peeler is used for peeling and a masher is used for crushing.</p>	<p>P. of Study Design and technology 3 Year 1 Food Use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>P. of Study RHE - Health education 1 Year 1 Healthy Know what constitutes a healthy diet (including understanding calories and other nutritional content).</p> <p>1 Year 1 Healthy Know the principles of planning and preparing a range of healthy meals.</p> <p>Knowledge Year 1 Using non-standard measures is a way of measuring that does not involve reading scales. For example, weight may be measured using a balance scale and lumps of plasticine. Length may be measured in the number of handspans or pencils laid end to end.</p> <p>Year 1 Fruit and vegetables are an important part of a healthy diet. It is recommended that people eat at least five portions of fruit and vegetables every day.</p> <p>Year 1 Fruits and vegetables can be mixed to make a healthy salad. Salad dressings</p>	<p>Design a sandwich</p> <p>P. of Study Design and technology 4 Year 1 Design Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>4 Year 1 Design Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>5 Year 1 Evaluate Explore and evaluate a range of existing products.</p> <p>Knowledge Year 1 Design criteria are the explicit goals that a project must achieve.</p> <p>Year 1 The importance of a product may be that it fulfils its goals and performs a useful purpose.</p> <p>Skill(s) Year 1 Create a design to meet simple design criteria. View progression</p> <p>Year 1 Describe why a product is important.</p>	<p>Making a supermarket sandwich</p> <p>P. of Study Breadth Design and technology Aims 2 Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.</p> <p>Knowledge Year 1 Rules are made to keep people safe from danger. Safety rules include always listening carefully and following instructions, using equipment only as and when directed, wearing protective clothing if appropriate and washing hands before touching food.</p> <p>Skill Year 1 Follow the rules to keep safe during a practical task.</p> <p>Pof Study Design and technology Evaluate 3 Evaluate their ideas and products against design criteria.</p> <p>Knowledge Year 1 A strength is a good quality of a piece of work. A weakness is an area that could be improved.</p> <p>Skill Year 1 Talk about their own and each other's work, identifying strengths or weaknesses and offering support.</p>	

		<p>Skill(s)Year 1 Select the appropriate tool for a simple practical task. View progression</p> <p>Year 1 Explain why hand washing and cleanliness are important</p>	<p>can improve the flavour of salads.</p> <p>Skill(s) Year 1 Measure and weigh food items using non-standard measures, such as spoons and cups.</p> <p>Year 1 Select healthy ingredients for a fruit or vegetable salad</p>			
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Year 2 Autumn	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion project "Remarkable recipes"</p> <p>This project teaches children about sources of food and tools used for food preparation. They also discover why some foods are cooked and learn to read a simple recipe. The children choose and make a new school meal that fulfils specific design criteria.</p>	<p>Exploring where food comes from</p> <p>P. of Study Design and technology Food 1 Understand where food comes from.</p> <p>Knowledge Year 2 Food comes from two main sources: animals and plants. Cows provide beef, sheep provide lamb and mutton and pigs provide pork, ham and bacon. Examples of poultry include chickens, geese and turkeys. Examples of fish include cod, salmon and shellfish. Milk comes mainly from cows but also from goats and sheep. Most eggs come from chickens. Honey is made by bees. Fruit and vegetables come from plants. Oils are made from parts of plants. Sugar is made from plants called sugar cane and sugar beet. Plants also give us nuts, such as almonds, walnuts and hazelnuts.</p> <p>Skill Year 2 Identify the origin of some common foods (milk, eggs, some meats, common fruit and vegetables).</p>	<p>Tools</p> <p>P. of Study Design and technology 2 Year 2 Food Use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>6 Year 2 Make Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).</p> <p>Knowledge Year 2 Some ingredients need to be prepared before they can be cooked or eaten. There are many ways to prepare ingredients: peeling skins using a vegetable peeler, such as potato skins; grating hard ingredients, such as cheese or chocolate; chopping vegetables, such as onions and peppers and slicing foods, such as bread and apples.</p> <p>Year 2 Different tools have characteristics that make them suitable for specific purposes. For example, scissors are used for cutting paper because they have sharp, metal blades that can cut through thin materials.</p> <p>Skill(s) Year 2 Prepare ingredients by peeling, grating,</p>	<p>Why do we cook our food?</p> <p>P. of Study Breadth Science Aims 2 Develop understanding of the nature, processes and methods of science enquiries that help them to answer scientific questions about the world around them.</p> <p>Knowledge Year 2 Some foods, such as ice and chocolate, melt when heated, but then harden (solidify or freeze) when cooled.</p> <p>Skill Year 2 Observe what happens when a range of everyday materials, including foods, are heated and cooled, sorting and grouping them based on their observations.</p>	<p>Reading recipes</p> <p>P. of Study RHE - Health education 10 Year 2 Health Know about personal hygiene and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing.</p> <p>P. of Study Breadth Design and technology</p> <p>1 Year 2 Aims Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.</p> <p>4 Year 2 Design Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>4 Year 2 Design Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>Knowledge Year 2 Hygiene rules include washing hands before handling food,</p>	<p>Planning a school meal</p> <p>P. of Study Design and technology 5 Year 2 Evaluate Explore and evaluate a range of existing products.</p> <p>4 Year 2 Design Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>4 Year 2 Design Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>Knowledge Year 2 Many key individuals have helped to shape the world. These include engineers, scientists, designers, inventors and many other people in important roles.</p> <p>Year 2 Ideas can be communicated in a variety of ways, including written work, drawings and diagrams, modelling, speaking and using information and communication technology.</p>	<p>Making a new school meal</p> <p>P. of Study RHE - Health education 10 Year 2 Healthy Know what constitutes a healthy diet (including understanding calories and other nutritional content).</p> <p>1 Year 2 Healthy Know the principles of planning and preparing a range of healthy meals.</p> <p>P. of Study Design and technology</p> <p>2 Year 2 Food Use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>Knowledge Year 2 Year 2 A healthy diet should include meat or fish, starchy foods (such as potatoes or rice), some dairy foods, a small amount of fat and plenty of fruit and vegetables.</p> <p>Skill(s) Year 2 Describe the types of food needed for a healthy and varied diet and apply the principles to make a simple, healthy meal.</p>

		<p>chopping and slicing. View progression</p> <p>Year 2 Select the appropriate tool for a task and explain their choice.</p>		<p>cleaning surfaces, tying long hair back, storing food appropriately and wiping up spills.</p> <p>Year 2 Ideas can be communicated in a variety of ways, including written work, drawings and diagrams, modelling, speaking and using information and communication technology.</p> <p>Skill(s) Year 2 Work safely and hygienically in construction and cooking activities. View progression</p> <p>Year 2 Generate and communicate their ideas through a range of different methods</p>	<p>Year 2 School kitchen staff are important people because they provide healthy, nutritious, appealing and balanced meals.</p> <p>Skill(s)</p> <p>Year 2 Explain why a designer or inventor is important. View progression</p> <p>Year 2 Generate and communicate their ideas through a range of different methods.</p>	
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Year 2 Spring	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion project: Cut, Stitch & Join</p> <p>This project teaches children about fabric home products and the significant British brand Cath Kidston. They learn about sewing patterns and using a running stitch and embellishments before making a sewn bag tag.</p>	<p>Everyday fabric projects</p> <p>P. of Study Design and technology Evaluate 5 Explore and evaluate a range of existing products.</p> <p>Knowledge Year 2 Products can be improved in different ways, such as making them easier to use, more hardwearing or more attractive.</p> <p>Specific knowledge Year 2 There are many fabric home products. These include bedding, tea towels, cushions, tea cosies, toiletry bags and other containers.</p> <p>Skill Year 2 Explain how an everyday product could be improved.</p>	<p>Significant designer – Cath Kitson</p> <p>P. of Study Design and technology Evaluate 5 Explore and evaluate a range of existing products.</p> <p>Knowledge Year 2 Products can be compared by looking at particular characteristics of each and deciding which is better suited to the purpose.</p> <p>Knowledge Year 2 Many key individuals have helped to shape the world. These include engineers, scientists, designers, inventors and many other people in important roles.</p> <p>Specific knowledge Year 2 A brand is a name, term, design, or symbol identifying a seller's products or services. Famous brands include Coca Cola, Kellogg's and Apple.</p> <p>Specific knowledge Year 2 Cath Kidston is an influential British home products brand famous</p>	<p>Sewing patterns</p> <p>P. of Study Design and technology Make 6 Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).</p> <p>Knowledge Year 2 Different tools have characteristics that make them suitable for specific purposes. For example, scissors are used for cutting paper because they have sharp, metal blades that can cut through thin materials.</p> <p>Specific knowledge Year 2 A sewing pattern is a template of the parts needed to make a garment or product. Pattern pieces are usually made from paper.</p> <p>Skill Year 2 Select the appropriate tool for a task and explain their choice.</p>	<p>Stitching</p> <p>P. of Study Design and technology Make 6 Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).</p> <p>Knowledge Year 2 A running stitch is a basic stitch that is used to join fabric. It is made by passing a needle in and out of fabric at an even distance.</p> <p>Skill Year 2 Use different methods of joining fabrics, including glue and running stitch.</p>	<p>Embellishment</p> <p>P. of Study Design and technology Make 6 Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p>Knowledge Year 2 Embellishment is a decorative detail or feature added to something to make it more attractive.</p> <p>Skill Year 2 Add simple decorative embellishments, such as buttons, prints, sequins and appliqué.</p>	<p>Designing a bag tag</p> <p>P. of Study Design and technology 4 Year 2 Design Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>4 Year 2 Design Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>Knowledge Year 2 Ideas can be communicated in a variety of ways, including written work, drawings and diagrams, modelling, speaking and using information and communication technology.</p> <p>Skill(s) Year 2 Generate and communicate their ideas through a range of different methods.</p> <p>Making a bag tag</p>

		<p>for making textiles, clothing, and furnishings. The Cath Kidston brand is significant as her products are popular worldwide, inspiring modern craftspeople and designers.</p> <p>Skill Year 2 Compare different or the same products from the same or different brands. View progression</p> <p>Skill Year 2 Explain why a designer or inventor is important.</p>				<p>P. of Study Design and technology Make 6 Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p>Knowledge Year 2 Properties of components and materials determine how they can and cannot be used. For example, plastic is shiny and strong but it can be difficult to paint.</p> <p>Skill Year 2 Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect.</p>
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Year 2 Summer	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion Project: Beach Huts</p> <p>This project teaches children about making and strengthening structures, including different ways of joining materials.</p> <p>Linked books Let's Build A House: A book about buildings and materials, Mick Manning</p> <p>Sandies in the Beach Huts, Cathy Watts</p>	<p>Investigating Beach Huts P. of Study Design and technology 4 Year 2 Design Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>4 Year 2 Design Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> <p>Knowledge Year 2 Ideas can be communicated in a variety of ways, including written work, drawings and diagrams, modelling, speaking and using information and communication technology.</p> <p>Skill(s) Year 2 Generate and communicate their ideas through a range of different methods</p>	<p>Lesson 1: Experimenting</p> <p>P. of Study Design and technology Technical 3 Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Knowledge Year 2 Structures can be made stronger, stiffer and more stable by using cardboard rather than paper and triangular shapes rather than squares. A broader base will also make a structure more stable</p> <p>Skill Year 2 Explore how a structure can be made stronger, stiffer and more stable</p>	<p>Lesson 2: Working with wood</p> <p>P. of Study Design and technology Technical 3 Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Knowledge Year 2 Structures can be made stronger, stiffer and more stable by using cardboard rather than paper and triangular shapes rather than squares. A broader base will also make a structure more stable.</p> <p>Skill Year 2 Explore how a structure can be made stronger, stiffer and more stable</p>	<p>Innovate :Lesson 1 Designing our huts</p> <p>P. of Study Design and technology Make 6 Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p>Knowledge Year 2 Properties of components and materials determine how they can and cannot be used. For example, plastic is shiny and strong but it can be difficult to paint.</p> <p>Skill Year 2 Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect.</p>	<p>Innovate: Lesson 2 – Make our huts and Evaluate</p> <p>P. of Study Design and technology Make 6 Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).</p> <p>Knowledge Year 2 Different tools have characteristics that make them suitable for specific purposes. For example, scissors are used for cutting paper because they have sharp, metal blades that can cut through thin materials.</p> <p>Specific knowledge Year 2 Tools for working with wood include a junior hacksaw, for cutting; a bench hook, for supporting the wood and as a guide to cut; and a G clamp, for holding the bench hook and wood securely.</p> <p>Skill Year 2 Select the appropriate tool for a task and explain their choice.</p>	

Year 3 Autumn	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion Project: Cook well, Eat well</p> <p>This project teaches children about food groups and the Eatwell guide. They learn about methods of cooking and explore these by cooking potatoes and ratatouille. The children choose and make a taco filling according to specific design criteria.</p>	<p>Healthy balanced diets</p> <p>P. of Study Design and technology 1 Year 3 3 Food Understand and apply the principles of a healthy and varied diet.</p> <p>2 Year 3 Evaluate Understand how key events and individuals in design and technology have helped shape the world.</p> <p>P. of Study RHE - Health education</p> <p>3 Year 3 Healthy Know what constitutes a healthy diet (including understanding calories and other nutritional content).</p> <p>P. of Study Science</p> <p>4 Year 3 Animals Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.</p> <p>Knowledge Year 3 There are five main food groups that should be eaten regularly as part of a balanced diet: fruit and vegetables; carbohydrates (potatoes, bread, rice and pasta); proteins (beans, pulses, fish, eggs and meat); dairy and alternatives (milk, cheese and yoghurt) and fats (oils and spreads). Foods high in fat, salt and sugar should only be eaten occasionally as part of a healthy, balanced diet.</p>	<p>Using cooking appliances</p> <p>P. of Study Breadth Design and technology</p> <p>1 Year 3 Aims Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.</p> <p>3 Year 3 Food Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Knowledge Year 3 Electrical appliances must only be used under the supervision of an adult. Safety rules must also be followed when using electricity: fingers and other objects must not be put into electrical outlets, anything with a cord or plug should never be used around water and a plug should never be pulled out by its cord.</p> <p>Year 3 Preparation techniques for savoury dishes include peeling, chopping, deseeding, slicing, dicing, grating, mixing and skinning.</p> <p>Skill(s)</p> <p>Year 3 Use appliances safely with adult supervision. View progression</p> <p>Year 3 Prepare and cook a simple savoury dish.</p>	<p>Making a ratatouille</p> <p>P. of Study Design and technology Food 3 Year 3 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Knowledge Year 3 Preparation techniques for savoury dishes include peeling, chopping, deseeding, slicing, dicing, grating, mixing and skinning.</p> <p>Specific knowledge Year 3 3 Slow cookers cook food on a low heat over several hours.</p> <p>Specific knowledge Year 3 3 Ratatouille is a vegetarian dish made from onions, aubergines, courgettes, peppers and tomatoes.</p> <p>Skill Year 3 Prepare and cook a simple savoury dish.</p>	<p>Planning a taco filling</p> <p>P. of Study Design and technology</p> <p>3 Year 3 Design Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>3 Year 3 Design 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>1 Year 3 Food Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p> <p>Knowledge</p> <p>Year 3 Design criteria are the exact goals a project must achieve to be successful. These criteria might include the product's use, appearance, cost and target user.</p> <p>Year 3 The types of food that will grow in a particular area depend on a range of factors, such as the rainfall, climate and soil type. For example, many crops, such as potatoes and sugar beet, are grown in the south-east of England. Wheat, barley and vegetables grow well in the east of England.</p> <p>Year 3 Tacos are a traditional Mexican street food made</p>	<p>Making a taco filling</p> <p>P. of Study Design and technology Food 3 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Knowledge Year 3 Preparation techniques for savoury dishes include peeling, chopping, deseeding, slicing, dicing, grating, mixing and skinning.</p> <p>Skill Year 3 Prepare and cook a simple savoury dish.</p>	<p>Evaluation</p> <p>P. of Study Design and technology Evaluate 4 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Knowledge Year 3 3 Asking questions can help others to evaluate their products, such as asking them whether the selected materials achieved the purpose of the model.</p> <p>Skill Year 3 3 Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account.</p>

	<p>Year 3 Key inventions in design and technology have changed the way people live.</p> <p>Year 3 Humans have to get nutrition from what they eat. It is important to have a balanced diet made up of the main food groups, including proteins, carbohydrates, fruit and vegetables, dairy products and alternatives, and fats and spreads. Humans need to stay hydrated by drinking water.</p> <p>Skill(s) Year 3 Identify the main food groups (carbohydrates, protein, dairy, fruits and vegetables, fats and sugars). View progression</p> <p>Year 3 Describe how key events in design and technology have shaped the world. View progression</p> <p>Year 3 Explain the importance and characteristics of a healthy, balanced diet.</p>			<p>from wheat or corn tortillas, filled with a meat or vegetarian filling and topped with salsa, lettuce or cheese.</p> <p>Skill(s)</p> <p>Year 3 Develop design criteria to inform a design. View progression</p> <p>Year 3 Identify and name foods that are produced in different places.</p>		
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Year 3 Spring	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion Project: Making it move</p> <p>This project teaches children about cam mechanisms. They experiment with different shaped cams before designing, making and evaluating a child's automaton toy.</p>	<p>Machines and Mechanisms</p> <p>P. of Study Design and technology</p> <p>2 Year 3 Evaluate Investigate and analyse a range of existing products.</p> <p>3 Year 3 Technical Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).</p> <p>Knowledge</p> <p>Year 3 Particular products have been designed for specific</p>	<p>How cams work</p> <p>P. of Study Design and technology</p> <p>5 Year 3 Make Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p> <p>3 Year 3 Technical Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).</p> <p>Knowledge</p>	<p>Using different shaped cams</p> <p>P. of Study Design and technology Technical 3 Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).</p> <p>Knowledge Year 3 Levers consist of a rigid bar that rotates around a fixed point, called a fulcrum. They reduce the amount of work needed to lift a heavy object. Sliders move from side to side or up and down, and are often used to make moving parts in books. Axles are shafts on which wheels can rotate to make a moving vehicle. Cams are devices that can</p>	<p>Designing an automaton toy</p> <p>P. of Study Design and technology</p> <p>3 Year 3 Design Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>3 Year 3 Design Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams,</p>	<p>Making an automaton toy</p> <p>P. of Study Design and technology</p> <p>4 Year 3 Evaluate Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>5 Year 3 Make Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p>	<p>Evaluation</p> <p>P. of Study Design and technology Evaluate 4 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Knowledge Year 3 Asking questions can help others to evaluate their products, such as asking them whether the selected materials achieved the purpose of the model.</p> <p>Skill Year 3 Suggest improvements to their products and describe how to implement them, beginning to</p>

	<p>tasks, such as nail clippers, the spinning top and the cool box.</p> <p>Year 3 Levers consist of a rigid bar that rotates around a fixed point, called a fulcrum. They reduce the amount of work needed to lift a heavy object. Sliders move from side to side or up and down, and are often used to make moving parts in books. Axles are shafts on which wheels can rotate to make a moving vehicle. Cams are devices that can convert circular motion into up-and-down motion.</p> <p>Skill(s)</p> <p>Year 3 Explain how an existing product benefits the user. View progression</p> <p>Year 3 Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products</p>	<p>Year 3 Specific tools can be used for cutting, such as saws. Wood can be joined using glue, nails, staples, or a combination of these. Safety rules must be followed to prevent injury from sharp blades. These rules include using a bench hook to keep the wood still, using a junior hacksaw with a pistol grip and working under adult supervision.</p> <p>Year 3 Levers consist of a rigid bar that rotates around a fixed point, called a fulcrum. They reduce the amount of work needed to lift a heavy object. Sliders move from side to side or up and down, and are often used to make moving parts in books. Axles are shafts on which wheels can rotate to make a moving vehicle. Cams are devices that can convert circular motion into up-and-down motion.</p> <p>Year 3 Cam mechanisms consist of an axle, a cam and a follower. The cam is fixed to the axle and the follower sits on the cam. When the axle is rotated, the follower moves up and down, following the shape of the cam. Cams are used in many machines. In engines, cams open and close valves. They can also be used to make carousel horses move up and down.</p> <p>Skill(s)Year 3 Use tools safely for cutting and joining materials and components. View progression</p> <p>Year 3 Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products.</p>	<p>convert circular motion into up-and-down motion.</p> <p>Specific knowledgeYear 3 Different shaped cams produce different patterns of movement in the follower. A pear cam makes the follower stationary for half a turn, then it gently rises and falls. It is used for carousel horses. An off-centre circular cam produces a smooth, continuous up and down movement. It is used for steam engine pistons. A heart cam makes a jerky, irregular up and down movement. A snail cam makes the follower stationary for half a turn, then gently rise and quickly fall.</p> <p>SkillYear 3 Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products.</p>	<p>prototypes, pattern pieces and computer-aided design.</p> <p>3Year 3 Make 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> <p>Knowledge</p> <p>Year 3 Design criteria are the exact goals a project must achieve to be successful. These criteria might include the product's use, appearance, cost and target user.</p> <p>Year 3 Materials for a specific task must be selected on the basis of their properties. These include physical properties as well as availability and cost.</p> <p>Year 3 Automata are machines that seem to move on their own and are intended to intrigue and delight an audience.</p> <p>Skill(s)Year 3 Develop design criteria to inform a design. View progression</p> <p>Year 3 Plan which materials will be needed for a task and explain why.</p>	<p>P. of StudyBreadthScience</p> <p>1Year 3 Aims Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p> <p>Knowledge Year 3 Asking questions can help others to evaluate their products, such as asking them whether the selected materials achieved the purpose of the model.</p> <p>Year 3 Specific tools can be used for cutting, such as saws. Wood can be joined using glue, nails, staples, or a combination of these. Safety rules must be followed to prevent injury from sharp blades. These rules include using a bench hook to keep the wood still, using a junior hacksaw with a pistol grip and working under adult supervision.</p> <p>Skill(s)</p> <p>Year 3 Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account. View progression</p> <p>Year 3 Use tools safely for cutting and joining materials and components. View progression</p> <p>Year 3 Make working models with simple mechanisms or electrical circuits.</p>	<p>take the views of others into account.</p>
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Year 3 Summer	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion Project: Green Houses</p> <p>This project teaches children about the purpose, structure and design features of greenhouses, and compares the work of two significant greenhouse designers. They learn techniques to strengthen structures and use tools safely. They use their learning to design and construct a mini greenhouse.</p>	<p>Greenhouse design</p> <p>P. of Study Design and technology Evaluate 2 Investigate and analyse a range of existing products.</p> <p>Knowledge Year 3Particular products have been designed for specific tasks, such as nail clippers, the spinning top and the cool box.</p> <p>Specific knowledge Year 3 A greenhouse is a building where plants can grow in a warm and protected environment. Greenhouses let light in through transparent or translucent walls and roofs. Windows, vents or fans provide ventilation.</p> <p>Skill Year 3 Explain how an existing product benefits the user.</p>	<p>Significant designer</p> <p>P. of Study Design and technology</p> <p>2 Year 3 Evaluate Understand how key events and individuals in design and technology have helped shape the world.</p> <p>P. of Study Art and design 8 Year 3 Learn about great artists, architects and designers in history.</p> <p>Knowledge Year 3 Work from different designers can be compared by assessing specific criteria, such as their visual impact, fitness for purpose and target market.</p> <p>Year 3 Explorations of the similarities and differences between pieces of art, structures and products from the same genre could focus on the subject matter, the techniques and materials used or the ideas and concepts that have been explored or developed.</p> <p>Specific knowledge</p> <p>Year 3 There are similarities and differences between the Great Conservatory of Chatsworth House and the Eden Project biomes. Both greenhouses were built to house tropical plants and have a frame structure. However, the frameworks are made of different materials and the greenhouses are heated in different ways.</p> <p>Skill(s) Year 3 Explain the similarities and difference between the work of two designers. View progression</p>	<p>Strengthening structures</p> <p>P. of Study Design and technology Technical 4 Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Knowledge Year 3Shell structures are hollow, 3-D structures with a thin outer covering, such as a box. Frame structures are made from thin, rigid components, such as a tent frame. The rigid frame gives the structure shape and support. Diagonal struts can strengthen the structure.</p> <p>Specific knowledge Year 3Diagonal struts create triangular shapes within a frame structure. Adding diagonal struts adds strength and stability.</p> <p>Skill Year 3 Create shell or frame structures using diagonal struts to strengthen them.</p>	<p>Using a hot glue gun</p> <p>P. of Study Design and technology Make 5 Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p> <p>Knowledge Year 3Specific tools can be used for cutting, such as saws. Wood can be joined using glue, nails, staples, or a combination of these. Safety rules must be followed to prevent injury from sharp blades. These rules include using a bench hook to keep the wood still, using a junior hacksaw with a pistol grip and working under adult supervision.</p> <p>Specific knowledge Year 3 A hot glue gun can join materials, including wood, some plastics, metal, fabric and paper. The advantages of a hot glue gun are that it allows glue to go onto a surface smoothly, the user can direct the glue to exactly where it is needed, and the glue hardens quickly. Safety rules must be followed to prevent burns.</p> <p>Skill Year 3 Use tools safely for cutting and joining materials and components.</p>	<p>Investigating sheet materials</p> <p>P. of Study Design and technology Make 5 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> <p>Knowledge Year 3Materials for a specific task must be selected on the basis of their properties. These include physical properties as well as availability and cost.</p> <p>Specific knowledge Year 3Materials, such as glass and plastic are suitable for making greenhouse roofs and walls because they are transparent, waterproof and hardwearing.</p> <p>Skill Year 3 Plan which materials will be needed for a task and explain why.</p>	<p>Planning a mini green house</p> <p>P. of Study Design and technology</p> <p>3 Year 3 Design 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>3 Year 3 Design Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Knowledge Year 3 Design criteria are the exact goals a project must achieve to be successful. These criteria might include the product's use, appearance, cost and target user.</p> <p>Skill(s) Year 3 Develop design criteria to inform a design.</p> <p>Making a mini-green house</p> <p>P. of Study Design and technology Make 5 Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p> <p>Knowledge Year 3Specific tools can be used for cutting, such as saws. Wood can be joined using glue, nails, staples, or a combination of these. Safety rules must be followed to prevent injury from sharp blades. These rules include using a bench hook to keep the wood still, using a junior hacksaw with a pistol grip and</p>

		<p>Year 3 Compare artists, architects and designers and identify significant characteristics of the same style of artwork, structures and products through time.</p>				<p>working under adult supervision.</p> <p>Skill Year 3 Use tools safely for cutting and joining materials and components.</p>
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Year 4 Autumn	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion Project: Fresh food, good food</p> <p>This project teaches children about food decay and preservation. They discover key inventions in food preservation and packaging, then make examples. The children prepare, package and evaluate a healthy snack.</p>	<p>Keeping food fresh</p> <p>P. of Study Design and technology Evaluate 3 Understand how key events and individuals in design and technology have helped shape the world.</p> <p>Knowledge Year 4 Significant designers and inventors can shape the world.</p> <p>Specific knowledge Year 4 Food packaging plays an important role in keeping foods fresh. The 'use by' date shows when the food is no longer safe to eat. The 'best before' date shows the date after which the food will lose some flavour or texture.</p> <p>Specific knowledge Year 4 Food deteriorates due to the growth of microorganisms. Decay can be prevented or delayed by preservation methods, such as drying, salting, pickling, canning, pasteurising, refrigerating or freezing the food.</p> <p>Skill Year 4 Explain how and why a significant designer or inventor shaped the world.</p>	<p>Food packaging</p> <p>P. of Study Design and technology</p> <p>3 Year 4 Evaluate Understand how key events and individuals in design and technology have helped shape the world.</p> <p>1 Year 4 Food Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p> <p>9 Year 4 Evaluate Investigate and analyse a range of existing products.</p> <p>Knowledge</p> <p>Year 4 Significant designers and inventors can shape the world.</p> <p>Year 4 Particular areas of the world have conditions suited to growing certain crops, such as coffee in Peru and citrus fruits in California in the United States of America.</p> <p>Year 4 Design features are the aspects of a product's design that the designer would like to emphasise, such as the use of a particular material or feature that makes the product easier to use or more durable.</p>	<p>Diagrams and prototypes</p> <p>P. of Study Design and technology</p> <p>4 Year 4 Design Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>4 Year 4 Design 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>1 Year 4 Technical Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Knowledge Year 4 Annotated sketches and exploded diagrams show specific parts of a design, highlight sections or show functions. They communicate ideas in a visual, detailed way.</p> <p>Year 4 A prototype is a mock-up of a design that will look like the finished product but may not be full size or made of the same materials. Shell and frame structures can be</p>	<p>Fresh, healthy snacks</p> <p>P. of Study Design and technology</p> <p>1 Year 4 Food Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>3 Year 4 Food Understand and apply the principles of a healthy and varied diet.</p> <p>P. of Study RHE - Health education</p> <p>3 Year 4 Healthy Know what constitutes a healthy diet (including understanding calories and other nutritional content).</p> <p>3 Year 4 Healthy Know the principles of planning and preparing a range of healthy meals.</p> <p>Knowledge</p> <p>Year 4 Cooking techniques include baking, boiling, frying, grilling and roasting.</p> <p>Year 4 Healthy snacks include fresh or dried fruit and vegetables, nuts and seeds, rice cakes with low-fat cream cheese, homemade popcorn or chopped vegetables with</p>	<p>Designing a healthy packaged snack</p> <p>P. of Study RHE - Health education</p> <p>3 Year 4 Healthy Know what constitutes a healthy diet (including understanding calories and other nutritional content).</p> <p>3 Year 4 Healthy Know the principles of planning and preparing a range of healthy meals.</p> <p>P. of Study Design and technology</p> <p>3 Year 4 Food Understand and apply the principles of a healthy and varied diet.</p> <p>6 Year 4 Make 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> <p>Knowledge</p> <p>Year 4 Healthy snacks include fresh or dried fruit and vegetables, nuts and seeds, rice cakes with low-fat cream cheese, homemade popcorn or chopped vegetables with hummus. A healthy packed</p>	<p>Making a healthy, packaged snack</p> <p>P. of Study Breadth Design and technology</p> <p>1 Year 4 Aims Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.</p> <p>3 Year 4 Food Understand and apply the principles of a healthy and varied diet.</p> <p>P. of Study RHE - Health education</p> <p>3 Year 4 Healthy Know what constitutes a healthy diet (including understanding calories and other nutritional content).</p> <p>3 Year 4 Healthy Know the principles of planning and preparing a range of healthy meals.</p> <p>Knowledge Year 4 Chemicals are used in the home every day. They include cleaning products, such as bleach and disinfectant, but also paints, glues, oils, pesticides and medicines. Most chemical products carry a hazard symbol showing in what way the chemical could be</p>

		<p>Skill(s)</p> <p>Year 4 Explain how and why a significant designer or inventor shaped the world. View progression</p> <p>Year 4 Identify and name foods that are produced in different places in the UK and beyond. View progression</p> <p>Year 4 Investigate and identify the design features of a familiar product.</p>	<p>strengthened by gluing several layers of card together, using triangular shapes rather than squares, adding diagonal support struts and using 'jinks' corners (small, thin pieces of card cut into a right-angled triangle and glued over each joint to straighten and strengthen them).</p> <p>Year 4 Most cardboard packaging is produced from a net. Packages can be strengthened by using thicker cardboard or multiple layers.</p>	<p>hummus. A healthy packed lunch might include a brown or wholemeal bread sandwich containing eggs, meat, fish or cheese, a piece of fresh fruit, a low-sugar yoghurt, rice cake or popcorn and a drink, such as water or semi-skimmed milk.</p> <p>Skill(s)</p> <p>Year 4 Identify and use a range of cooking techniques to prepare a simple meal or snack. View progression</p> <p>Year 4 Design a healthy snack or packed lunch and explain why it is healthy.</p>	<p>lunch might include a brown or wholemeal bread sandwich containing eggs, meat, fish or cheese, a piece of fresh fruit, a low-sugar yoghurt, rice cake or popcorn and a drink, such as water or semi-skimmed milk.</p> <p>Year 4 Different materials and components have a range of properties, making them suitable for different tasks. It is important to select the correct material or component for the specific purpose, depending on the design criteria. Recipe ingredients have different tastes and appearances. They look and taste better and are cheaper when in season.</p> <p>Year 4 Foods need packaging to keep them fresh, safe to eat and free from damage. Food packaging also provides nutritional information about the food inside, 'use by' and 'best before' dates, and the materials and recyclability of the packaging.</p> <p>Skill(s)Year 4 Design a healthy snack or packed lunch and explain why it is healthy. View progression</p> <p>Year 4 Choose from a range of materials, showing an understanding of their different characteristics.</p>	<p>harmful. Chemicals should only be used under adult supervision. Appropriate safety precautions, such as wearing goggles and gloves, working in a well-ventilated room, wiping up spills and tying back long hair, should be taken.</p> <p>Year 4 Healthy snacks include fresh or dried fruit and vegetables, nuts and seeds, rice cakes with low-fat cream cheese, homemade popcorn or chopped vegetables with hummus. A healthy packed lunch might include a brown or wholemeal bread sandwich containing eggs, meat, fish or cheese, a piece of fresh fruit, a low-sugar yoghurt, rice cake or popcorn and a drink, such as water or semi-skimmed milk.</p> <p>Skill(s)Year 4 Work safely with everyday chemical products under supervision, such as disinfectant hand wash and surface cleaning spray. View progression</p> <p>Year 4 Design a healthy snack or packed lunch and explain why it is healthy.</p> <p>Evaluation</p> <p>P. of Study Design and technology Evaluate 4 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Knowledge Year 4 Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes were made. Evaluation also</p>
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						<p>includes suggesting improvements and explaining why they should be made.</p> <p>Skill Year 4 Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements.</p>
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Year 4 Spring	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion Project: Functional and fancy fabrics</p> <p>This project teaches children about home furnishings and the significant designer William Morris. They learn techniques for decorating fabric, including block printing, hemming and embroidery and use them to design and make a fabric sample.</p>	<p>Exploring fabrics</p> <p>6 Year 4 Make 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> <p>9 Year 4 Evaluate Investigate and analyse a range of existing products.</p> <p>Knowledge Year 4 Different materials and components have a range of properties, making them suitable for different tasks. It is important to select the correct material or component for the specific purpose, depending on the design criteria. Recipe ingredients have different tastes and appearances. They look and taste better and are cheaper when in season.</p> <p>Year 4 A comparison table can be used to compare products by listing specific criteria on which each product can be judged or scored.</p> <p>Year 4 Fabrics can be natural or synthetic. Natural fabrics include cotton, silk and wool. Synthetic fabrics include Lycra, polyester and nylon.</p> <p>Skill(s)</p>	<p>Design features of familiar projects</p> <p>P. of Study Design and technology Evaluate 9 Investigate and analyse a range of existing products.</p> <p>Knowledge Year 4 A comparison table can be used to compare products by listing specific criteria on which each product can be judged or scored.</p> <p>Knowledge Year 4 Design features are the aspects of a product's design that the designer would like to emphasise, such as the use of a particular material or feature that makes the product easier to use or more durable.</p> <p>Specific knowledge Year 4 Design features include purpose and function, appearance, quality, material, size, colour, pattern, embellishment, durability and usability.</p> <p>Skill Year 4 Create and complete a comparison table to compare two or more products. View progression</p> <p>Skill Year 4 Investigate and identify the design features of a familiar product.</p>	<p>Significant designer – William Morris & Motifs (cover as one lesson)</p> <p>P. of Study Design and technology Evaluate 3 Understand how key events and individuals in design and technology have helped shape the world.</p> <p>Knowledge Year 4 Significant designers and inventors can shape the world.</p> <p>Specific knowledge Year 4 William Morris was a British textile designer, artist and socialist activist associated with the British Arts and Crafts Movement. He was a significant contributor to the revival of traditional British textile arts and methods of production.</p> <p>Skill Year 4 Explain how and why a significant designer or inventor shaped the world.</p> <p>William Morris Motifs</p> <p>P. of Study Art and design 26 Improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (for example, pencil, charcoal, paint, clay).</p> <p>Knowledge Year 4 Natural patterns from weather, water or animals</p>	<p>Block printing</p> <p>P. of Study Art and design</p> <p>26 Year 4 Improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (for example, pencil, charcoal, paint, clay).</p> <p>P. of Study Design and technology</p> <p>6 Year 4 Make 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> <p>Knowledge Year 4 Different printmaking techniques include monoprinting, engraving, etching, screen printing and lithography.</p> <p>Year 4 Block printing techniques and fabric paint are used to create decorative, repeated patterns on fabrics.</p> <p>Skill(s) Year 4 Combine a variety of printmaking techniques and materials to create a print on a theme. View progression</p>	<p>Sewing a hem</p> <p>P. of Study Design and technology Make 2 Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p> <p>Knowledge Year 4 A hem runs along the edge of a piece of cloth or clothing. It is made by turning under a raw edge and sewing to give a neat and quality finish.</p> <p>Skill Year 4 Hand sew a hem or seam using a running stitch</p>	<p>Design a William Morris inspired fabric</p> <p>P. of Study Design and technology</p> <p>4 Year 4 Design Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>4 Year 4 Design 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>Knowledge Year 4 Annotated sketches and exploded diagrams show specific parts of a design, highlight sections or show functions. They communicate ideas in a visual, detailed way.</p> <p>Year 4 Annotated sketches and exploded diagrams show specific parts of a design, highlight sections or show functions. They communicate ideas in a visual, detailed way.</p> <p>Skill(s) Year 4 Use annotated sketches and exploded</p>

	<p>Year 4 Choose from a range of materials, showing an understanding of their different characteristics. View progression</p> <p>Year 4 Create and complete a comparison table to compare two or more products</p>		<p>skins are often used as a subject matter.</p> <p>Specific knowledge Year 4 William Morris' motifs consisted mainly of leaves, flowers, fruits and birds.</p> <p>Skill Year 4 Represent the detailed patterns found in natural phenomena, such as water, weather or animal skins.</p>	<p>Year 4 Create detailed decorative patterns on fabric using printing techniques.</p>		<p>diagrams to test and communicate their ideas.</p> <p>Making a William Morris inspired fabric</p> <p>P. of Study Design and technology Make 2 Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p> <p>Knowledge Year 4 Useful tools for cutting include scissors, craft knives, junior hacksaws with pistol grip and bench hooks. Useful tools for joining include glue guns. Tools should only be used with adult supervision and safety rules must be followed.</p> <p>Specific knowledge Year 4 Joining tools to use with fabric include needles, pins and clips, cutting tools include a variety of scissors such as pinking shears, finishing tools include an iron and ironing board.</p> <p>Skill Year 4 Select, name and use tools with adult supervision.</p>
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Year 4 Summer	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion project: Tomb builders</p> <p>This project teaches children about simple machines, including wheels, axles, inclined planes, pulleys and levers, exploring how they helped ancient builders to lift and move heavy loads.</p>	<p>Identifying simple machines</p> <p>P. of Study Design and technology Technical 3 Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).</p> <p>Knowledge Year 4 Mechanisms can be used to add functionality to a model. For example, sliders or levers can be used in moving pictures, storybooks or simple puppets; linkages in moving vehicles or puppets; gears in motorised vehicles or spinning toys; pulleys in</p>	<p>Using simple machines</p> <p>P. of Study Design and technology Technical 3 Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).</p> <p>Knowledge Year 4 Mechanisms can be used to add functionality to a model. For example, sliders or levers can be used in moving pictures, storybooks or simple puppets; linkages in moving vehicles or puppets; gears in motorised vehicles or spinning toys; pulleys in</p>	<p>Designing machine prototypes</p> <p>P. of Study Design and technology Technical 3 Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).</p> <p>Knowledge Year 4 Mechanisms can be used to add functionality to a model. For example, sliders or levers can be used in moving pictures, storybooks or simple puppets; linkages in moving vehicles or puppets; gears in motorised vehicles or spinning toys; pulleys in</p>	<p>Evaluation</p> <p>P. of Study Design and technology Evaluate 4 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Knowledge Year 4 Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the</p>		

	<p>cable cars or transport systems and cams in 3-D moving toys or pictures.</p> <p>Specific knowledge Year 4 Simple machines make physical jobs easier by changing the strength or direction of a force. There are six simple machines: pulley; lever; wheel and axle; wedge; inclined plane; and screw. Simple machines can be combined to make complex, compound machines.</p> <p>Skill Year 4 Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products.</p> <p>Skill Year 4 Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products.</p>	<p>cable cars or transport systems and cams in 3-D moving toys or pictures.</p> <p>Specific knowledge Year 4 Simple machines make physical jobs easier by changing the strength or direction of a force.</p>	<p>cable cars or transport systems and cams in 3-D moving toys or pictures.</p> <p>Specific knowledge Year 4 Simple machines including pulleys, levers, wheels and axles and inclined planes can be combined to make a machine that can move heavy objects.</p> <p>Skill Year 4 Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products.</p>	<p>making process and why the changes were made. Evaluation also includes suggesting improvements and explaining why they should be made.</p> <p>Skill Year 4 Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements.</p>		
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Year 5 Autumn	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion project: Moving mechanisms</p> <p>This project teaches children about pneumatic systems. They experiment with pneumatics before designing, making and evaluating a pneumatic machine that performs a useful function.</p>	<p>Exploring pneumatics</p> <p>P. of Study Design and technology</p> <p>3 Year 5 Technical Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).</p> <p>3 Year 5 Evaluate Investigate and analyse a range of existing products.</p> <p>Knowledge Year 5 Pneumatic systems use energy that is stored in compressed air to do work, such as inflating a balloon to open a model monster's mouth. These effects can be achieved using syringes and plastic tubing.</p> <p>Year 5 Culture is the language, inventions, ideas and art of a group of people. A society is all the people in a community or group. Culture affects the design of some products. For</p>	<p>Investigating pneumatics</p> <p>P. of Study Design and technology</p> <p>4 Year 5 Evaluate Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>3 Year 5 Technical Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).</p> <p>Knowledge</p> <p>Year 5 Testing a product against the design criteria will highlight anything that needs improvement or redesign. Changes are often made to a design during manufacture.</p> <p>Year 5 Pneumatic systems use energy that is stored in compressed air to do work,</p>	<p>Making a pneumatic machine</p> <p>P. of Study Design and technology</p> <p>2 Year 5 Make Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p> <p>3 Year 5 Technical Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Knowledge</p> <p>Year 5 There are many rules for using tools safely and these may vary depending on the tools being used. For example, someone using a chisel should chip or cut with the cutting edge pointing away from their body. All tools should be cleaned and put away after</p>	<p>Designing a pneumatic prototype</p> <p>P. of Study Breadth Design and technology</p> <p>1 Year 5 Aims Critique, evaluate and test their ideas and products and the work of others.</p> <p>3 Year 5 Technical Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages).</p> <p>Knowledge</p> <p>Year 5 Safety features are often incorporated into products that might cause harm. Some examples include the child-safety caps on medicine bottles, seatbelts in cars, covers for electrical sockets and finger guards on doors.</p> <p>Year 5 Pneumatic systems use energy that is stored in</p>	<p>Making a pneumatic prototype</p> <p>P. of Study Design and technology</p> <p>4 Year 5 Evaluate Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>3 Year 5 Make 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> <p>Knowledge</p> <p>Year 5 Testing a product against the design criteria will highlight anything that needs improvement or redesign. Changes are often made to a design during manufacture.</p>	<p>Evaluation</p> <p>P. of Study Design and technology Evaluate 4 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Knowledge Year 5 A focus group is a small group of people whose reactions and opinions about a product are taken and studied. Evaluations can be made by asking product users a selection of questions to obtain data on how the product has met its design criteria.</p> <p>Skill Year 5 Survey users in a range of focus groups and compare results.</p>

<p>example, knives and forks are used in the western world, whereas chopsticks are used mainly in China and Japan. The design of products needs to take into account the culture of the target audience. For example, colours might mean very different things in different cultures.</p> <p>Year 5 A pneumatic system uses air to exert a force. This force is used in pneumatic jacks to lift vehicles, in paint sprayers to force paint out at high speed, in jackhammers to break up pavements and in train and bus brakes.</p> <p>Year 5 Pneumatic systems are low maintenance, compact and safe as only air can leak from the system.</p> <p>Skill(s)</p> <p>Year 5 Use mechanical systems in their products, such as pneumatics. View progression</p> <p>Year 5 Explain how the design of a product has been influenced by the culture or society in which it was designed or made</p>	<p>such as inflating a balloon to open a model monster's mouth. These effects can be achieved using syringes and plastic tubing.</p> <p>Skill(s)</p> <p>Year 5 Test and evaluate products against a detailed design specification and make adaptations as they develop the product. View progression</p> <p>Year 5 Use mechanical systems in their products, such as pneumatics.</p>	<p>use, and should not be used if they are loose or cracked.</p> <p>Year 5 Various methods can be used to support a framework. These include cross braces, guy ropes and diagonal struts. Frameworks can be built using lolly sticks, skewers and bamboo canes.</p> <p>Year 5 Different mechanisms and systems can work together to perform a function. A strong and stable structure is necessary to support different mechanisms in a machine.</p> <p>Skill(s)</p> <p>Year 5 Name and select increasingly appropriate tools for a task and use them safely. View progression</p> <p>Year 5 Build a framework using a range of materials to support mechanisms.</p>	<p>compressed air to do work, such as inflating a balloon to open a model monster's mouth. These effects can be achieved using syringes and plastic tubing.</p> <p>Year 5 Pneumatic systems can be used to lift heavy loads, raise and lower platforms or soften a force by acting as a shock absorber.</p> <p>Skill(s)</p> <p>Year 5 Explain the functionality and purpose of safety features on a range of products. View progression</p> <p>Year 5 Use mechanical systems in their products, such as pneumatics.</p>	<p>Year 5 Materials should be cut and combined with precision. For example, pieces of fabric could be cut with sharp scissors and sewn together using a variety of stitching techniques.</p> <p>Year 5 Design is an iterative process, meaning that once an initial prototype has been designed it is continually tested and improved until the final product is deployed.</p> <p>Skill(s)</p> <p>Year 5 Test and evaluate products against a detailed design specification and make adaptations as they develop the product. View progression</p> <p>Year 5 Select and combine materials with precision.</p>	
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Year 5 Spring	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion project: Eat the seasons</p> <p>This project teaches children about the meaning and benefits of seasonal eating, including food preparation and cooking techniques.</p>	<p>Seasonality</p> <p>P. of Study Design and technology Food 3 Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p> <p>Knowledge Year 5 Seasonality is the time of year when the harvest or flavour of a type of food is at its best. Buying seasonal food is beneficial for</p>	<p>Benefits of seasonal eating</p> <p>P. of Study Design and technology</p> <p>3 Year 5 Food Understand and apply the principles of a healthy and varied diet.</p> <p>P. of Study RHE - Health education 3 Year 5 Healthy Know what constitutes a healthy diet</p>	<p>Dicing, peeling and grating</p> <p>P. of Study Design and technology Food 2 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Knowledge Year 5 Sweet dishes are usually desserts, such as cakes, fruit pies and trifles. Savoury dishes usually have a</p>	<p>Designing</p> <p>P. of Study Design and technology</p> <p>3 Year 5 Food Understand and apply the principles of a healthy and varied diet.</p> <p>P. of Study RHE - Health education</p>	<p>Making</p> <p>P. of Study Design and technology Food 2 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Knowledge Year 5 Sweet dishes are usually desserts, such as cakes, fruit pies and trifles. Savoury dishes usually have a salty or spicy flavour rather than a sweet one.</p>	

<p>many reasons: the food tastes better; it is fresher because it hasn't been transported thousands of miles; the nutritional value is higher; the carbon footprint is lower, due to reduced transport; it supports local growers and is usually cheaper.</p> <p>Specific knowledge Year 5 Food hygiene is important to prevent the spread of disease-causing microorganisms.</p> <p>Specific knowledge Year 5 Foods can be prepared and cooked in different ways to achieve different results.</p> <p>Skill Year 5 Describe what seasonality means and explain some of the reasons why it is beneficial.</p>	<p>(including understanding calories and other nutritional content).</p> <p>Knowledge</p> <p>Year 5 A balanced diet gives your body all the nutrients it needs to function correctly. This means eating a wide variety of foods in the correct proportions.</p> <p>Skill(s) Year 5 Evaluate meals and consider if they contribute towards a balanced diet.</p>	<p>salty or spicy flavour rather than a sweet one.</p> <p>Specific knowledge Year 5 Foods can be prepared and cooked in different ways to achieve different results.</p> <p>Specific knowledge Year 5 Food hygiene is important to prevent the spread of disease-causing microorganisms.</p> <p>Skill Year 5 Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish.</p>	<p>3 Year 5 Healthy Know what constitutes a healthy diet (including understanding calories and other nutritional content).</p> <p>Knowledge</p> <p>Year 5 A balanced diet gives your body all the nutrients it needs to function correctly. This means eating a wide variety of foods in the correct proportions.</p> <p>Skill(s) Year 5 Evaluate meals and consider if they contribute towards a balanced diet.</p>	<p>Skill Year 5 Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish.</p> <p>Taste test</p> <p>P. of Study Design and technology</p> <p>3 Year 5 Food Understand and apply the principles of a healthy and varied diet.</p> <p>P. of Study RHE - Health education 3 Year 5 Healthy Know what constitutes a healthy diet (including understanding calories and other nutritional content).</p> <p>Knowledge</p> <p>Year 5 A balanced diet gives your body all the nutrients it needs to function correctly. This means eating a wide variety of foods in the correct proportions.</p> <p>Skill(s) Year 5 Evaluate meals and consider if they contribute towards a balanced diet.</p>
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Year 5 Summer	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion project: Architecture</p> <p>This project teaches children about how architectural style and technology has developed over time and then use this knowledge to design a building with specific features.</p> <p>Year 2023 -24 Change the 'Greek' element to 'The Tudors.' The same objectives MUST be covered.</p>	<p>Architecture over time</p> <p>P. of Study Design and technology</p> <p>3 Year 5 Evaluate Investigate and analyse a range of existing products.</p> <p>1 Year 5 Evaluate Understand how key events and individuals in design and technology have helped shape the world.</p> <p>Knowledge</p> <p>Year 5 Culture is the language, inventions, ideas and art of a group of people. A society is all the people in a community or group. Culture affects the design of some products. For example, knives and forks are used in the western world, whereas chopsticks are used</p>	<p>Greek architecture (2023 Tudors)</p> <p>P. of Study Design and technology Evaluate 3 Investigate and analyse a range of existing products.</p> <p>Knowledge Year 5 Culture is the language, inventions, ideas and art of a group of people. A society is all the people in a community or group. Culture affects the design of some products. For example, knives and forks are used in the western world, whereas chopsticks are used mainly in China and Japan. The design of products needs to take into account the culture of the target audience. For example, colours might mean very different things in different cultures.</p> <p>Specific knowledge Year 5 The ancient Greeks developed the Classical form of architecture.</p>	<p>Support, stiffness and stability</p> <p>P. of Study Design and technology Technical 3 Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>Knowledge Year 5 Various methods can be used to support a framework. These include cross braces, guy ropes and diagonal struts. Frameworks can be built using lolly sticks, skewers and bamboo canes.</p> <p>Specific knowledge Year 5 Support, stiffness and stability can be created by using triangular shapes to create strong frameworks, columns to support roofs and overlapping brickwork patterns.</p>	<p>Computer aided design (NOTE: Install CAD software)</p> <p>P. of Study Design and technology</p> <p>1 Year 5 Design Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>1 Year 5 Design 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>Knowledge Year 5 A pattern piece is a drawing or shape used to guide how to</p>	<p>Building design</p> <p>P. of Study Design and technology</p> <p>3 Year 5 Technical Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>3 Year 5 Make 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> <p>Knowledge Year 5 Various methods can be used to support a framework. These include cross braces, guy ropes and diagonal struts. Frameworks can be built using</p>	<p>Evaluation</p> <p>P. of Study Design and technology Evaluate 4 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Knowledge Year 5 Testing a product against the design criteria will highlight anything that needs improvement or redesign. Changes are often made to a design during manufacture.</p> <p>Skill Year 5 Test and evaluate products against a detailed design specification and make adaptations as they develop the product</p>

	<p>mainly in China and Japan. The design of products needs to take into account the culture of the target audience. For example, colours might mean very different things in different cultures.</p> <p>Year 5 Many new designs and inventions influenced society. For example, labour-saving devices in the home reduced the amount of housework, which was traditionally done by women. This enabled them to have jobs.</p> <p>Skill(s) Year 5 Explain how the design of a product has been influenced by the culture or society in which it was designed or made. View progression</p> <p>Year 5 Describe the social influence of a significant designer or inventor.</p>	<p>They used columns to support roofs, which had three main orders; Doric, Ionic and Corinthian. Ancient Greek buildings were symmetrical and beautiful. Roofs had a triangular shaped part, called the pediment, and a wide horizontal part, usually decorated with a frieze, called the entablature. Greek buildings were usually made from limestone or marble.</p> <p>Skill Year 5 Explain how the design of a product has been influenced by the culture or society in which it was designed or made.</p>	<p>Skill Year 5 Build a framework using a range of materials to support mechanisms.</p>	<p>make something. There are many different computer-aided design packages for designing products.</p> <p>Year 5 Computer-aided design (CAD) is the use of specialised computer software to design objects. CAD can help designers to create better quality, clearer designs and make changes easily. CAD designs can also be made into objects using 3-D printers.</p> <p>Skill(s) Year 5 Use pattern pieces and computer-aided design packages to design a product.</p>	<p>lolly sticks, skewers and bamboo canes.</p> <p>Year 5 Materials should be cut and combined with precision. For example, pieces of fabric could be cut with sharp scissors and sewn together using a variety of stitching techniques.</p> <p>Skill(s) Year 5 Build a framework using a range of materials to support mechanisms. View progression</p> <p>Year 5 Select and combine materials with precision.</p>	
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Year 6 Autumn	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<p>Companion unit Food for life</p> <p>This project teaches children about processed food and healthy food choices. They make bread and pasta sauces and learn about the benefits of whole foods. They plan and make meals as part of a healthy daily menu, and evaluate their completed products.</p>	<p>Exploring processed foods</p> <p>P. of Study Design and technology Evaluate 7 Investigate and analyse a range of existing products.</p> <p>Knowledge Year 6 People's lives have been improved in countless ways due to new inventions and designs. For example, the Morrison shelter, designed by John Baker in 1941, was an indoor air-raid shelter used in over half a million homes during the Second World War. It saved the lives of many people caught in bombing raids.</p> <p>Knowledge Year 6 Products and inventions can be compared using a range of criteria, such as the impact on society, ease of</p>	<p>Comparing processed and homemade bread (2 hours)</p> <p>P. of Study Design and technology</p> <p>7 Year 6 Evaluate Investigate and analyse a range of existing products.</p> <p>3 Year 6 Food Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Knowledge Year 6 Products and inventions can be compared using a range of criteria, such as the impact on society, ease of use, appearance and value for money.</p> <p>Year 6 Ingredients can usually be bought at supermarkets, but specialist shops may stock different items. Greengrocers sell fruit and vegetables, butchers sell meat, fishmongers sell fresh fish and delicatessens usually sell some unusual prepared foods, as well as cold meats and cheeses.</p>		<p>Whole foods</p> <p>P. of Study Design and technology 1 Year 6 Food Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p> <p>3 Year 6 Food Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Knowledge Year 6 Organic produce is food that has been grown without the use of man-made fertilisers, pesticides, growth regulators or animal feed additives. Organic farmers use crop rotation, animal and plant</p>	<p>Designing a healthy meal</p> <p>P. of Study Design and technology</p> <p>1 Year 6 Food Understand and apply the principles of a healthy and varied diet.</p> <p>P. of Study RHE - Health education</p> <p>4 Year 6 Healthy Know what constitutes a healthy diet (including understanding calories and other nutritional content).</p> <p>1 Year 6 Healthy Know the principles of planning and</p>	<p>Making a healthy meal & Evaluation in one session</p> <p>P. of Study Design and technology Food 3 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Knowledge Year 6 Ingredients can usually be bought at supermarkets, but specialist shops may stock different items. Greengrocers sell fruit and vegetables, butchers sell meat, fishmongers sell fresh fish and delicatessens usually sell some unusual prepared foods, as well as cold meats and cheeses.</p> <p>Specific knowledge Year 6 Techniques include</p>

	<p>use, appearance and value for money.</p> <p>Specific knowledge Year 6 There are different categories of processed foods. Ultra-processed foods have been through significant changes, have added ingredients and often a low nutritional value.</p> <p>Specific knowledge Year 6 A processed food is changed during preparation and includes processes, such as cooking, freezing, pasteurising, or the addition of ingredients. Pros of processed foods include convenience and availability. Cons include a lack of nutrients and unhealthy ingredients.</p> <p>Skill Year 6 Analyse how an invention or product has significantly changed or improved people's lives. View progression</p> <p>Skill Year 6 Create a detailed comparative report about two or more products or inventions.</p>	<p>Year 6 Sliced bread is processed. It can contain many more ingredients than homemade bread, including preservatives and artificial ingredients.</p> <p>Year 6 Yeast is a leavening agent that makes bread rise. Kneading is a technique used to make bread dough. Proving means to leave bread dough, which contains yeast, to rise.</p> <p>Skill(s) Year 6 Create a detailed comparative report about two or more products or inventions. View progression</p> <p>Year 6 Follow a recipe that requires a variety of techniques and source the necessary ingredients independently.</p>	<p>manures, hand-weeding and biological pest control.</p> <p>Year 6 Ingredients can usually be bought at supermarkets, but specialist shops may stock different items. Greengrocers sell fruit and vegetables, butchers sell meat, fishmongers sell fresh fish and delicatessens usually sell some unusual prepared foods, as well as cold meats and cheeses.</p> <p>Year 6 A recipe provides information to prepare a dish, including ingredients, quantities and a method. They may also contain nutritional information.</p> <p>Skill(s) Year 6 Explain how organic produce is grown. View progression</p> <p>Year 6 Follow a recipe that requires a variety of techniques and source the necessary ingredients independently</p>	<p>preparing a range of healthy meals.</p> <p>Knowledge Year 6 Eating a balanced diet is a positive lifestyle choice that should be sustained over time. Food that is high in fat, salt or sugar can still be eaten occasionally as part of a balanced diet.</p> <p>Skill(s) Year 6 Plan a healthy daily diet, justifying why each meal contributes towards a balanced diet</p>	<p>preparation techniques, such as chopping, slicing, dicing, kneading and mashing, and cooking techniques, such as boiling, roasting, frying and baking.</p> <p>Skill Year 6 Follow a recipe that requires a variety of techniques and source the necessary ingredients independently</p> <p>Evaluation</p> <p>P. of Study Design and technology Evaluate B Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Knowledge Year 6 Design is an iterative process, meaning alterations and improvements are made continually throughout the manufacturing process. Evaluating a product while it's being manufactured, and explaining these evaluations to others, can help to refine it.</p> <p>Skill Year 6 Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others.</p>
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Year 6 Spring	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
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<p>Companion unit Engineer</p> <p>This project teaches children about remarkable engineers and significant bridges, learning to identify features, such as beams, arches and trusses. They complete a bridge-building engineering challenge to create a bridge prototype.</p>	<p>Bridges and engineers (30 mins)</p> <p>P. of Study Design and technology Year 6 Evaluate Investigate and analyse a range of existing products.</p> <p>1 Year 6 Evaluate Understand how key events and individuals in design and technology have helped shape the world.</p> <p>Knowledge Year 6 People's lives have been improved in countless ways due to new inventions and designs. For example, the Morrison shelter, designed by John Baker in 1941, was an indoor air-raid shelter used in over half a million homes during the Second World War. It saved the lives of many people caught in bombing raids.</p> <p>Year 6 The significance of a designer or inventor can be measured in various ways. Their work may benefit society in health, transport, communication, education, the built environment or technology. It may enhance culture in different areas, such as fashion, ceramics or computer games.</p> <p>Year 6 Bridges provide a safe route over obstacles, including roads and rivers. They are used by pedestrians, cars, trains and pipelines.</p> <p>Year 6 Bridge structures have changed over time with innovations in design and materials. Significant bridges include the Menai Bridge, Clifton Suspension Bridge and Forth Bridge.</p> <p>Skill(s) Year 6 Analyse how an invention or product has significantly changed or improved people's lives. View progression</p>	<p>Strengthening paper bridges (30 minutes)</p> <p>P. of Study Design and technology</p> <p>2 Year 6 Technical Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>5 Year 6 Make 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> <p>Knowledge Year 6 Strength can be added to a framework by using multiple layers. For example, corrugated cardboard can be placed with corrugations running alternately vertically and horizontally. Triangular shapes can be used instead of square shapes because they are more rigid. Frameworks can be further strengthened by adding an outer cover.</p> <p>Year 6 It is important to understand the characteristics of different materials to select the most appropriate material for a purpose. This might include flexibility, waterproofing, texture, colour, cost and availability.</p> <p>Skill(s)</p> <p>Year 6 Select the most appropriate materials and frameworks for different structures, explaining what makes them strong. View progression</p> <p>Year 6 Choose the best materials for a task, showing</p>	<p>Designing a bridge prototype</p> <p>P. of Study Design and technology 2 Year 6 Design Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>2 Year 6 Design 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>Knowledge Year 6 Design criteria should cover the intended use of the product, age range targeted and final appearance. Ideas can be communicated in a range of ways, including through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p>Skill(s) Year 6 Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways.</p>	<p>Making a bridge prototype</p> <p>P. of Study Design and technology Make 5 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> <p>Knowledge Year 6 It is important to understand the characteristics of different materials to select the most appropriate material for a purpose. This might include flexibility, waterproofing, texture, colour, cost and availability.</p> <p>Skill Year 6 Choose the best materials for a task, showing an understanding of their working characteristics.</p>	<p>Evaluation</p> <p>P. of Study Design and technology Evaluate 3 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Knowledge Year 6 Design is an iterative process, meaning alterations and improvements are made continually throughout the manufacturing process. Evaluating a product while it's being manufactured, and explaining these evaluations to others, can help to refine it.</p> <p>Skill Year 6 Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others.</p>	
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	<p>Year 6 Present a detailed account of the significance of a favourite designer or inventor.</p> <p>Features of Bridges (45 minutes)</p> <p>P. of Study Design and technology Evaluate 7 Investigate and analyse a range of existing products.</p> <p>Knowledge Year 6 Products and inventions can be compared using a range of criteria, such as the impact on society, ease of use, appearance and value for money.</p> <p>Specific knowledge Year 6 The four main bridge types are the beam bridge, arch bridge, truss bridge and suspension bridge. They each spread forces in different ways to remain strong and stable.</p> <p>Skill Year 6 Create a detailed comparative report about two or more products or inventions.</p>	<p>an understanding of their working characteristics.</p> <p>Triangles for strength (30 minutes)</p> <p>P. of Study Design and technology</p> <p>2 Year 6 Technical Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>5 Year 6 Make 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> <p>Knowledge Year 6 Strength can be added to a framework by using multiple layers. For example, corrugated cardboard can be placed with corrugations running alternately vertically and horizontally. Triangular shapes can be used instead of square shapes because they are more rigid. Frameworks can be further strengthened by adding an outer cover.</p> <p>Year 6 It is important to understand the characteristics of different materials to select the most appropriate material for a purpose. This might include flexibility, waterproofing, texture, colour, cost and availability.</p> <p>Year 6 Triangles are a strong shape used by engineers to add strength to a structure. When a force is applied to a triangle, it is distributed down each side, making triangles difficult to distort or collapse.</p> <p>Skill(s)</p>				
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		<p>Year 6 Select the most appropriate materials and frameworks for different structures, explaining what makes them strong. View progression</p> <p>Year 6 Choose the best materials for a task, showing an understanding of their working characteristics.</p>				
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Year 6 Summer	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
<p>Companion unit Make do and mend</p> <p>This project teaches children a range of simple sewing stitches, including ways of recycling and repurposing old clothes and materials.</p>	<p>Make do and mend campaign (2hours)</p> <p>P. of Study Design and technology Evaluate 7 Investigate and analyse a range of existing products.</p> <p>Knowledge Year 6 People's lives have been improved in countless ways due to new inventions and designs. For example, the Morrison shelter, designed by John Baker in 1941, was an indoor air-raid shelter used in over half a million homes during the Second World War. It saved the lives of many people caught in bombing raids.</p> <p>Specific knowledge Year 6 In 1941, the British government introduced clothes rationing. This was to limit the amount of labour and materials used in clothes production, so that it could be used to support the greater war effort.</p> <p>Specific knowledge Year 6 Make Do and Mend was a campaign run by the Ministry of Information to encourage people to recycle and repurpose their old clothes rather than buy new.</p> <p>Skill Year 6 Analyse how an invention or product has significantly changed or improved people's lives.</p>	<p>Deconstruct</p> <p>P. of Study Design and technology Make 4 Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p> <p>Knowledge Year 6 Precision is important in producing a polished, finished product. Correct selection of tools and careful measurement can ensure the parts fit together correctly.</p> <p>Specific knowledge Year 6 Deconstructing garments identifies how they were made, the materials used and their properties.</p> <p>Skill Year 6 Select appropriate tools for a task and use them safely and precisely.</p>	<p>Stitch</p> <p>P. of Study Design and technology Make 4 Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p> <p>Knowledge Year 6 Precision is important in producing a polished, finished product. Correct selection of tools and careful measurement can ensure the parts fit together correctly.</p> <p>Specific knowledge Year 6 Hand stitches include running stitch, blanket stitch and whip stitch.</p> <p>Skill Year 6 Select appropriate tools for a task and use them safely and precisely.</p>	<p>Repair (2 hours)</p> <p>P. of Study Design and technology</p> <p>5 Year 6 Make 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> <p>4 Year 6 Make Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p> <p>Knowledge Year 6 It is important to understand the characteristics of different materials to select the most appropriate material for a purpose. This might include flexibility, waterproofing, texture, colour, cost and availability.</p> <p>Year 6 Pinning with dressmaker pins and tacking with quick, temporary stitches holds fabric together in preparation for and during sewing.</p> <p>Skill(s)</p> <p>Year 6 Choose the best materials for a task, showing an understanding of their working characteristics. View progression</p> <p>Year 6 Pin and tack fabrics in preparation for sewing and more complex pattern work.</p>	<p>Sewing challenge (3 hours)</p> <p>P. of Study Design and technology</p> <p>4 Year 6 Make Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.</p> <p>5 Year 6 Make 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> <p>Knowledge</p> <p>Year 6 Pinning with dressmaker pins and tacking with quick, temporary stitches holds fabric together in preparation for and during sewing.</p> <p>Year 6 Fastenings hold a piece of clothing together. Types of fastenings include zips, press studs, Velcro and buttons.</p> <p>Skill(s)</p>		

					<p>Year 6 Pin and tack fabrics in preparation for sewing and more complex pattern work. View progression</p> <p>Year 6 Use different methods of fastening for function and decoration, including press studs, Velcro and buttons.</p> <p>Evaluate (30 mins)</p> <p>P. of Study Design and technology Evaluate 7 Investigate and analyse a range of existing products.</p> <p>Knowledge Year 6</p> <p>Products and inventions can be compared using a range of criteria, such as the impact on society, ease of use, appearance and value for money.</p> <p>Skill Year 6 Create a detailed comparative report about two or more products or inventions.</p>
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