

<b>YEAR I</b>			
	<b>Autumn 1/2</b>	<b>Spring 1/2</b>	<b>Summer 1/2</b>
<b>Focus</b>	<b>Structures</b>	<b>Textiles</b>	<b>Cooking &amp; Nutrition</b>
<b>Topic</b>	<b>Constructing a windmill</b>	<b>Puppets</b>	<b>Smoothies</b>
<b>National Curriculum</b>  <b>EYFS Statutory Framework</b>	<p><b><u>Design:</u></b> Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology.</p> <p><b><u>Make:</u></b> Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p><b><u>Evaluate:</u></b> Explore and evaluate a range of existing products.</p> <p>Evaluate their ideas and products against design criteria.</p>	<p><b><u>Design:</u></b> Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology.</p> <p><b><u>Make:</u></b> Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p><b><u>Evaluate:</u></b> Evaluate their ideas and products against design criteria.</p>	<p><b><u>Design:</u></b> Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology.</p> <p>Understand where food comes from.</p> <p><b><u>Make:</u></b> Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].</p> <p>Understand where food comes from.</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Understand where food comes from.</p>

	<p><b><u>Technical knowledge:</u></b> Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p> <p><b><u>EYFS Statutory Framework:</u></b> <b><u>Prime areas:</u></b> <b><u>Physical development:</u></b> Develop small motor skills so that they can use a range of tools competently, safely and confidently. <b>ELG: Fine Motor Skills</b>&gt; Use a range of small tools, including scissors, paint brushes and cutlery.</p> <p><b><u>Specific areas:</u></b> <b><u>Expressive Arts and Design:</u></b> Explore, use and refine a variety of artistic effects to express ideas and feelings. -Return to and build on their previous learning, refining ideas and developing their ability to represent them. -Create collaboratively, sharing ideas, resources and skills. <b>ELG: Creating with materials</b>&gt; Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. <b>ELG: Creating with materials</b>&gt; Share their creations, explaining the process they have used.</p>	<p><b><u>EYFS Statutory Framework:</u></b> <b><u>Prime areas:</u></b> <b><u>Communication and language</u></b> -Learn new vocabulary. -Use new vocabulary throughout the day. <b>-ELG: Speaking</b>&gt; Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary. <b><u>Personal, social and emotional development:</u></b> -Know and talk about the different factors that support their overall health and wellbeing: healthy eating. <b>-ELG: Managing self</b>&gt; Manage their own basic hygiene and personal needs, including... understanding the importance of healthy food choices. <b><u>Physical development:</u></b> -Develop small motor skills so that they can use a range of tools competently, safely and confidently. <b>-ELG: Use a range of small tools, including scissors, paint brushes and cutlery</b></p> <p><b><u>Specific areas:</u></b> <b><u>Understanding the world:</u></b> -Explore the natural world around them. <b>-ELG: The Natural World</b>&gt;Explore the natural world around them, making observations and drawing pictures of</p>	<p><b><u>Evaluate:</u></b> Evaluate their ideas and products against design criteria.</p> <p>Understand where food comes from.</p> <p><b><u>EYFS Statutory Framework:</u></b> <b><u>Prime areas:</u></b> <b><u>Physical development</u></b> Develop small motor skills so that they can use a range of tools competently, safely and confidently. <b>-ELG: Fine Motor Skills</b>&gt; Use a range of small tools, including scissors, paint brushes and cutlery.</p> <p><b><u>Expressive Arts and Design:</u></b> -Explore, use and refine a variety of artistic effects to express ideas and feelings. -Return to and build on their previous learning, refining ideas and developing their ability to represent them. <b>-ELG: Creating with materials</b>&gt; Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. <b>-ELG: Creating with materials</b>&gt; Share their creations, explaining the process they have used.</p>
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			animals and plants. <b>Expressive Arts and Design:</b> -Explore, use and refine a variety of artistic effects to express ideas and feelings. <b>ELG: Creating with materials</b> > Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function			
<b>Key Vocabulary</b>	axle bridge design design criteria model net packaging	structure template unstable stable strong weak	decorate design fabric glue model	hand puppet safety pin staple stencil template	fruit vegetable seed leaf root stem smoothie	healthy carton design flavour peel slice
<b>Prior Knowledge (indicate year group)</b>	<b>EYFS Structures – Junk Modelling</b>  <u><b>Prime areas:</b></u> <u><b>Physical development:</b></u>  Develop small motor skills so that they can use a range of tools competently, safely and confidently. <b>ELG: Fine Motor Skills</b> > Use a range of small tools, including scissors, paint brushes and cutlery.  <u><b>Specific areas:</b></u> <u><b>Expressive Arts and Design:</b></u> Explore, use and refine a variety of artistic effects to express ideas and feelings. -Return to and build on their previous learning, refining ideas and developing their ability to represent them. -Create collaboratively, sharing ideas, resources and skills.		<u><b>Prime areas:</b></u> <u><b>Communication and language</b></u> -Learn new vocabulary. -Use new vocabulary throughout the day. <b>-ELG: Speaking</b> > Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary. <b>Personal, social and emotional development:</b> -Know and talk about the different factors that support their overall health and wellbeing: healthy eating. <b>-ELG: Managing self</b> > Manage their own basic hygiene and personal needs, including... understanding the importance of healthy food choices. <u><b>Physical development:</b></u> -Develop small motor skills so that they can use a range of tools competently, safely and confidently.			

	<p><b>ELG: Creating with materials</b>&gt; Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p><b>ELG: Creating with materials</b>&gt; Share their creations, explaining the process they have used.</p>	<p><b>-ELG:</b> Use a range of small tools, including scissors, paint brushes and cutlery</p> <p><b>Specific areas:</b>  <b>Understanding the world:</b>  -Explore the natural world around them.  <b>-ELG: The Natural World</b>&gt;Explore the natural world around them, making observations and drawing pictures of animals and plants. <b>Expressive Arts and Design:</b>  -Explore, use and refine a variety of artistic effects to express ideas and feelings.  <b>ELG: Creating with materials</b>&gt; Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function</p>	
<p><b>Key Knowledge (Substantive) Facts</b></p>	<p>To understand that the shape of materials can be changed to improve the strength and stiffness of structures.</p> <p>To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses).</p> <p>To understand that axles are used in structures and mechanisms to make parts turn in a circle.</p> <p>To begin to understand that different structures are used for different purposes.</p> <p>To know that a structure is something that has been made and put together.</p>	<p>To know that ‘joining technique’ means connecting two pieces of material together.</p> <p>To know that there are various temporary methods of joining fabric by using staples, glue or pins.</p> <p>To understand that different techniques for joining materials can be used for different purposes.</p> <p>To understand that a template (or fabric pattern) is used to cut out the same shape multiple times.</p> <p>To know that drawing a design idea is useful to see how an idea will look.</p>	<p>To understand the difference between fruits and vegetables.</p> <p>To understand that some foods typically known as vegetables are actually fruits (e.g. cucumber).</p> <p>To know that a blender is a machine which mixes ingredients together into a smooth liquid.</p> <p>To know that a fruit has seeds and a vegetable does not.</p> <p>To know that fruits grow on trees or vines.</p>

	<p>To know that a client is the person I am designing for.</p> <p>To know that design criteria is a list of points to ensure the product meets the client's needs and wants.</p> <p>To know that a windmill harnesses the power of wind for a purpose like grinding grain, pumping water or generating electricity.</p> <p>To know that windmill turbines use wind to turn and make the machines inside work.</p> <p>To know that a windmill is a structure with sails that are moved by the wind.</p> <p>To know the three main parts of a windmill are the turbine, axle and structure.</p>		<p>To know that vegetables can grow either above or below ground.</p> <p>To know that vegetables can come from different parts of the plant.</p>
<p><b>Key Skills (Disciplinary)</b> <b>How we use the facts</b></p>	<p><b><u>Design:</u></b> Learning the importance of a clear design criteria.</p> <p>Including individual preferences and requirements in a design.</p> <p><b><u>Make:</u></b> Making stable structures from card, tape and glue.</p> <p>Learning how to turn 2D nets into 3D structures.</p>	<p><b><u>Design:</u></b> Using a template to create a design for a puppet.</p> <p><b><u>Make:</u></b> Cutting fabric neatly with scissors.</p> <p>Using joining methods to decorate a puppet.</p> <p>Sequencing steps for construction.</p> <p><b><u>Evaluate:</u></b> Reflecting on a finished product, explaining likes and dislikes.</p>	<p><b><u>Design:</u></b> Designing smoothie carton packaging by-hand or on ICT software.</p> <p><b><u>Make:</u></b> Chopping fruit and vegetables safely to make a smoothie.</p> <p>Identifying if a food is a fruit or a vegetable. Learning where and how fruits and vegetables grow.</p> <p><b><u>Evaluating:</u></b> Tasting and evaluating different food combinations.</p>

	<p>Following instructions to cut and assemble the supporting structure of a windmill.</p> <p>Making functioning turbines and axles which are assembled into a main supporting structure.</p> <p><b><u>Evaluate:</u></b> Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't.</p> <p>Suggest points for improvements.</p>		<p>Describing appearance, smell and taste. Suggesting information to be included on packaging.</p>
<p><b>Possible sequence of lessons – enquiry questions? 1-6?</b></p>	<p><b><u>Lesson 1:</u></b> Pre Assessment task Designing the structure</p> <p><b><u>Lesson 2:</u></b> Assembling the structure</p> <p><b><u>Lesson 3-5:</u></b> Assembling the windmill</p> <p><b><u>Lesson 6:</u></b> Testing and evaluating Post Assessment task</p>	<p><b><u>Lesson 1:</u></b> Pre Assessment task To join fabrics together using different methods</p> <p><b><u>Lesson 2:</u></b> To use a template to create my design</p> <p><b><u>Lesson 3-5:</u></b> To join two fabrics together accurately</p> <p><b><u>Lesson 6:</u></b> To embellish my design using joining methods</p>	<p><b><u>Lesson 1:</u></b> To identify if a food is a fruit or a vegetable</p> <p><b><u>Lesson 2:</u></b> To identify where plants grow and which parts we eat</p> <p><b><u>Lesson 3-5:</u></b> To taste and compare fruit and vegetables</p> <p><b><u>Lesson 6:</u></b> To make a fruit and vegetable smoothie</p>
<p><b>End of unit goals. Suggested assessment task?</b></p>	<p>To construct a windmill and be able to:</p> <p>Identify some features that would appeal to the client (a mouse) and create a suitable design.</p> <p>Explain how their design appeals to the mouse.</p>	<p>To make a storybook character and be able to:</p> <p>Join fabrics together using pins, staples or glue.</p> <p>Design a puppet and use a template.</p>	<p>Make a fruit or vegetable smoothie and be able to:</p> <p>Describe fruits and vegetables and explain why they are a fruit or a vegetable.</p>

	<p>Make stable structures, which will eventually support the turbine, out of card, tape and glue.</p> <p>Make functioning turbines and axles that are assembled into the main supporting structure.</p> <p>Say what is good about their windmill and what they could do better.</p>	<p>Join their two puppets' faces together as one.</p> <p>Decorate a puppet to match their design.</p>	<p>Name a range of places that fruits and vegetables grow.</p> <p>Describe basic characteristics of fruit and vegetables.</p> <p>Prepare fruits and vegetables to make a smoothie.</p>
<p><b>Suggestions for the development of deeper learning</b></p>	<p><b><u>Lesson 1:</u></b> Identifying a greater range of features that would appeal to their mouse – these may go beyond basic aesthetic considerations, such as colour, and focus on functional aspects, such as doors and windows. Creating a design suitable for their client which has been realised with accuracy and demanding practical skills. Articulating how their design appeals and what they might be able to change/ add to improve it. Extending their structure by making a roof.</p> <p><b><u>Lesson 2:</u></b> Cutting and sticking with accuracy to create a strong and stable structure with the cylinder being of an even thickness throughout.</p> <p><b><u>Lesson 3:</u></b> Should work independently to cut and assemble their own structures accurately and include a roof structure too.</p> <p><b><u>Lesson 4:</u></b> Creating more sophisticated products through greater attention to accuracy and precision during the making process. Evaluating their product by referencing the 'Success Criteria'</p>	<p><b><u>Lesson 1:</u></b> May need to be pushed to consider which methods of joining fabrics might be suitable for different situations.</p> <p><b><u>Lesson 2:</u></b> Should be challenged to have more complex shapes and to ensure their cutting matches the template.</p> <p><b><u>Lesson 3:</u></b> Should ensure that their fabrics are joined well, with no gaps, and that the two pieces are aligned neatly.</p> <p><b><u>Lesson 4:</u></b> may need to be pushed to explain what effect they are trying to achieve with each embellishment.</p>	<p><b><u>Lesson 1:</u></b> Should be allowed to examine the foods in more detail, perhaps with a magnifying glass. They may be encouraged to start naming other parts of the fruits and vegetables, for example, stem, leaves, root.</p> <p><b><u>Lesson 2:</u></b> Could be stretched to consider if there are taste similarities with things that grow above or below ground. For example, are all things that grow on a vine sweet?</p> <p><b><u>Lesson 3:</u></b> Should be pushed to describe the taste combinations in detail. They should also be pushed to consider what they would exclude or include in response to their tasting.</p> <p><b><u>Lesson 4:</u></b> Should be encouraged to consider why procedures like tying up hair and wiping work surfaces are important. Could adapt the recipe as they work, perhaps by adding more fruit juice at the blending</p>

	and the design criteria, using appropriate vocabulary.		stage to thin the smoothie texture. Should be encouraged to reflect on food packaging they have seen to help them make design decisions.
<b>Enrichment opportunities</b>			
<b>Links to future learning</b>	<p><b><u>Year 2 Structures – Baby Bear’s chair</u></b></p> <p>Identify man-made and natural structures.  Identify stable and unstable structural shapes.  Contribute to discussions.  Identify features that make a chair stable.  Work independently to make a stable structure, following a demonstration.  Explain how their ideas would be suitable for Baby Bear.  Produce a model that supports a teddy, using the appropriate materials and construction techniques.  Explain how they made their model strong, stiff and stable.</p>		

<b>CLASS / YEAR GROUP 2</b>			
	<b>Autumn 1/2</b>	<b>Spring 1/2</b>	<b>Summer 1/2</b>
<b>Focus</b>	<b><u>Structures</u></b>	<b><u>Mechanisms</u></b>	<b><u>Mechanisms</u></b>
<b>Topic</b>	<b>Baby bear’s chair</b>	<b>Fairground wheel</b>	<b>Moving monsters</b>



<p><b>National Curriculum</b></p> <p><b>EYFS Statutory Framework</b></p>	<p><b><u>Design</u></b>  Design purposeful, functional, appealing products for themselves and other users based on design criteria.  Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology</p> <p><b><u>Make</u></b>  Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].  Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p><b><u>Evaluate</u></b>  Explore and evaluate a range of existing products.  Evaluate their ideas and products against design criteria.</p>	<p><b><u>Design</u></b>  Design purposeful, functional, appealing products for themselves and other users based on design criteria.  Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology</p> <p><b><u>Make</u></b>  Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].  Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p><b><u>Evaluate</u></b>  Explore and evaluate a range of existing products.  Evaluate their ideas and products against design criteria.</p>	<p><b><u>Design:</u></b>  Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock- ups and, where appropriate, information and communication technology.</p> <p><b><u>Make:</u></b>  Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].  Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p><b><u>Evaluate:</u></b>  Explore and evaluate a range of existing products.  Evaluate their ideas and products against design criteria.</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p>
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<b>Key Vocabulary</b>	design criteria man-made natural properties structure stable shape model test	design design criteria wheel Ferris wheel pods axle axle holder frame mechanism	axle design criteria input linkage mechanical output pivot wheel
<b>Prior Knowledge (indicate year group)</b>	<p><b><u>EYFS Structures- Junk Modelling</u></b></p> <p><b><u>Physical development:</u></b>  Develop small motor skills so that they can use a range of tools competently, safely and confidently. -ELG: Fine Motor Skills&gt; Use a range of small tools, including scissors, paint brushes and cutlery.</p> <p><b><u>Expressive Arts and Design:</u></b>  Explore, use and refine a variety of artistic effects to express ideas and feelings. -Return to and build on their previous learning, refining ideas and developing their ability to represent them. -Create collaboratively, sharing ideas, resources and skills. -ELG: Creating with materials&gt; Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. -ELG: Creating with materials&gt; Share their creations, explaining the process they have used.</p>		

	<p><b><u>Year 1 Structures- Constructing Windmills</u></b></p> <p>Identify some features that would appeal to the client (a mouse) and create a suitable design.</p> <p>Explain how their design appeals to the mouse.</p> <p>Make stable structures, which will eventually support the turbine, out of card, tape and glue.</p> <p>Make functioning turbines and axles that are assembled into the main supporting structure.</p> <p>Say what is good about their windmill and what they could do better.</p>		
<p><b>Key Knowledge (Substantive)</b></p>	<p>To know that materials can be manipulated to improve strength and stiffness.</p> <p>To know that a structure is something which has been formed or made from parts.</p> <p>To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move.</p>	<p>To know that different materials have different properties and are therefore suitable for different uses.</p> <p>To know the features of a Ferris wheel include the wheel, frame, pods, a base, an axle and an axle holder.</p> <p>To know that it is important to test my design as I go along so that I can solve any problems that may occur.</p>	<p>To know that mechanisms are a collection of moving parts that work together as a machine to produce movement.</p> <p>To know that there is always an input and an output in a mechanism.</p> <p>To know that an input is the energy that is used to start something working.</p> <p>To know that an output is the movement that happens as a result of the input.</p>

	<p>To know that a 'strong' structure is one which does not break easily.</p> <p>To know that a 'stiff' structure or material is one which does not bend easily.</p>		<p>To know that a lever is something that turns on a pivot.</p> <p>To know that a linkage mechanism is made up of a series of levers.</p>
<p><b>Key Skills (Disciplinary)</b></p>	<p><b><u>Design:</u></b> Generating and communicating ideas using sketching and modelling.</p> <p><b><u>Make:</u></b> Making a structure according to design criteria.</p> <p>Creating joints and structures from paper/card and tape.</p> <p>Building a strong and stiff structure by folding paper.</p> <p><b><u>Evaluate:</u></b> Testing the strength of own structure.</p> <p>Identifying the weakest part of a structure.</p> <p>Evaluating the strength, stiffness and stability of own structure.</p>	<p><b><u>Design:</u></b> Selecting a suitable linkage system to produce the desired motions.</p> <p>Designing a wheel.</p> <p>Selecting appropriate materials based on their properties.</p> <p>Selecting materials according to their characteristics.</p> <p><b><u>Making:</u></b> Following a design brief.</p> <p><b><u>Evaluate:</u></b> Evaluating different designs.</p> <p>Testing and adapting a design.</p>	<p><b><u>Design:</u></b> Creating a design criteria for a moving monster as a class.</p> <p>Designing a moving monster for a specific audience in accordance with a design criteria.</p> <p><b><u>Making:</u></b> Making linkages using card for levers and split pins for pivots.</p> <p>Experimenting with linkages adjusting the widths, lengths and thicknesses of card used.</p> <p>Cutting and assembling components neatly.</p> <p><b><u>Evaluate:</u></b> Evaluating own designs against design criteria.</p> <p>Using peer feedback to modify a final design.</p>

<p><b>Possible sequence of lessons – enquiry questions? 1-6?</b></p>	<p><b>Lesson 1:</b> <b>Pre assessment task</b> To explore the concept and features of structures and the stability of different shapes <b>Lesson 2:</b> To explore strength in different structures To understand that the shape of the structure affects its strength <b>Lesson 3-5:</b> To make a structure according to design criteria <b>Lesson 6:</b> <b>Post assessment task</b> To produce a finished structure and evaluate its strength, stiffness and stability</p>	<p><b>Lesson 1:</b> <b>Pre assessment task</b> To explore wheel mechanisms and design a Ferris wheel. <b>Lesson 2:</b> To select appropriate materials. <b>Lesson 3:</b> To build and test a moving wheel. <b>Lesson 4:</b> To make and evaluate a structure with a rotating wheel.</p>	<p><b>Lesson 1:</b> <b>Pre assessment task</b> To look at objects and understand how they move <b>Lesson 2:</b> To look at objects and understand how they move <b>Lesson 3:</b> To explore different design options <b>Lesson 4:</b> To make a moving monster</p>
<p><b>End of unit goals. Suggested assessment task?</b></p>	<p>To have designed a chair to: Support Teddy; be strong, stiff and stable</p> <p>To have created joints and structures</p> <p>To have evaluated my structure according to the design criteria</p>	<p>To design and label a fairground wheel and to:</p> <p>Consider the designs of others and make comments about their practicality or appeal.</p> <p>Consider the materials, shape, construction and mechanisms of their wheel.</p> <p>Label their designs.</p> <p>Build a stable structure with a rotating wheel.</p> <p>Test and adapt their designs as necessary.</p>	<p>Identify the correct terms for levers, linkages and pivots.</p> <p>Analyse popular toys with the correct terminology.</p> <p>Create functional linkages that produce the desired input and output motions.</p> <p>Design monsters suitable for children, which satisfy most of the design criteria.</p> <p>Evaluate their two designs against the design criteria, using this information and the feedback of their peers to choose their best design.</p>

		<p>Follow a design plan to make a completed model of the wheel.</p>	<p>Select and assemble materials to create their planned monster features.</p> <p>Assemble the monster to their linkages without affecting their functionality.</p>
<p><b>Suggestions for the development of deeper learning</b></p>	<p><b>Lesson 1:</b>          Could work individually and make a wider range of shapes to test. You could then encourage them to combine shapes or come up with their own shapes to test. They could label the diagrams in more depth, for example, where there might be visible nuts and bolts or other joints, identify materials used and why they are good choices, identify how the stability could be improved.</p> <p><b>Lesson 2:</b>          Can work more independently. Should make better quality structures (neater and with more accuracy). Can make and test different shaped structures to identify the strongest/weakest. Can suggest ways their structures could be made stronger and/or more stable, considering: size, shape, materials used and how they are fixed together.</p> <p><b>Lesson 3-5:</b>          Should work more independently, producing more varied, demanding designs. Can produce neat, stable structures with a variety of joining techniques. Should work with a wider</p>		

	<p>range of materials. Should experiment with different ideas, taking risks and learning from them.</p> <p><b>Lesson 6:</b> Should be encouraged to work independently and to use a wider range of materials and construction techniques to produce a more complex model, identifying ways to improve their design as they work.</p>		
<b>Enrichment opportunities</b>			
<b>Links to future learning</b>	<p>Y3 Structures – Constructing a castle</p> <p>Y4 Structures- Pavilion</p> <p>Y6 Structures- Playgrounds</p>		

<b>CLASS / YEAR GROUP 3</b>			
	<b>Autumn 1/2</b>		
<b>Focus</b>	<b>Cooking &amp; Nutrition</b>	<b>Digital world</b>	<b>Structures</b>
<b>Topic</b>	<b>Eating seasonally</b>	<b>Electronic charm</b>	<b>Constructing a castle</b>
<b>National Curriculum</b>	<p><b>Design:</b> Understand and apply principles of a healthy and varied diet.</p>	<p><b>Design:</b> Use research and develop design criteria to inform the design of innovative, functional,</p>	<p><b>Design:</b> Use research and develop design criteria to inform the design of innovative,</p>

<p><b>EYFS Statutory Framework</b></p>	<p>Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p> <p><b>Make:</b> Understand and apply principles of a healthy and varied diet.</p> <p>Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p> <p><b>Evaluate:</b> Understand and apply principles of a healthy and varied diet.</p> <p>Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques.</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	<p>appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.</p> <p><b>Evaluate:</b> Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Understand how key events and individuals in design and technology have helped shape the world</p> <p><b>Technical knowledge:</b> Apply their understanding of computing to program, monitor and control their products.</p>	<p>functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.</p> <p><b>Make:</b> 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>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p><b>Evaluate:</b> Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p><b>Technical knowledge:</b> Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p>
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<b>Key Vocabulary</b>	climate imported natural reared seasonal diet ingredients	nationality processed recipe sugar exported imported nutrients	smart wearables product design digital revolution technology analogue digital feature function digital world Micro:bit electronic products program loops initiate simulator control	monitor sense template develop fasten test user CAD (computer-aided design) point of sale display badge stand net design requirements layers	2D shapes 3D shapes castle design criteria evaluate façade feature flag	net recyclable scoring stable strong structure tab weak
<b>Prior Knowledge (indicate year group)</b>	EYFS – Cooking & Nutrition – Soup  Year 1 – Cooking & Nutrition – Fruit and vegetables (Summer 1)  Year 2 – Cooking & Nutrition (stand-alone lesson) – A balanced diet – hidden sugars in drinks (Autumn 2)		n/a		Structures: Baby Bear’s chair (Y2)  Identify man-made and natural structures.  Identify stable and unstable structural shapes.  Contribute to discussions.  Identify features that make a chair stable.  Work independently to make a stable structure, following a demonstration.  Explain how their ideas would be suitable for Baby Bear.	

			<p>Produce a model that supports a teddy, using the appropriate materials and construction techniques.</p> <p>Explain how they made their model strong, stiff and stable.</p>
<p><b>Key Knowledge (Substantive) Facts</b></p>	<p>To know that not all fruits and vegetables can be grown in the UK.</p> <p>To know that climate affects food growth.</p> <p>To know that vegetables and fruit grow in certain seasons.</p> <p>To know that cooking instructions are known as a 'recipe'.</p> <p>To know that imported food is food which has been brought into the country.</p> <p>To know that exported food is food which has been sent to another country.</p> <p>To understand that imported foods travel from far away and this can negatively impact the environment.</p> <p>To know that each fruit and vegetable gives us nutritional benefits because they contain vitamins, minerals and fibre.</p> <p>To understand that vitamins, minerals and fibre are important for energy, growth and maintaining health.</p>	<p>To understand that in programming a 'loop' is code that repeats something again and again until stopped.</p> <p>To know that a Micro:bit is a pocket-sized, codeable computer.</p> <p>Writing a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm.</p>	<p>To understand that wide and flat based objects are more stable.</p> <p>To understand the importance of strength and stiffness in structures.</p> <p>To know the following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse – and their purpose.</p> <p>To know that a façade is the front of a structure.</p> <p>To understand that a castle needed to be strong and stable to withstand enemy attack.</p>

	<p>To know safety rules for using, storing and cleaning a knife safely.</p> <p>To know that similar coloured fruits and vegetables often have similar nutritional benefits.</p>		
<p><b>Key Skills (Disciplinary)</b> <b>How we use the facts</b></p>	<p>Creating a healthy and nutritious recipe for a savoury tart using seasonal ingredients, considering the taste, texture, smell and appearance of the dish.</p> <p>Knowing how to prepare themselves and a work space to cook safely in, learning the basic rules to avoid food contamination.</p> <p>Following the instructions within a recipe.</p> <p>Establishing and using design criteria to help test and review dishes.</p> <p>Describing the benefits of seasonal fruits and vegetables and the impact on the environment.</p> <p>Suggesting points for improvement when making a seasonal tart.</p>	<p>Problem solving by suggesting potential features on a Micro:bit and justifying my ideas.</p> <p>Developing design ideas for a technology pouch.</p> <p>Drawing and manipulating 2D shapes, using computer-aided design, to produce a point of sale badge.</p> <p>Using a template when cutting and assembling the pouch.</p> <p>Following a list of design requirements.</p> <p>Selecting and using the appropriate tools and equipment for cutting, joining, shaping and decorating a foam pouch.</p> <p>Applying functional features such as using foam to create soft buttons.</p> <p>Analysing and evaluating an existing product.</p> <p>Identifying the key features of a pouch.</p>	<p>Designing a castle with key features to appeal to a specific person/purpose.</p> <p>Drawing and labelling a castle design using 2D shapes.</p> <p>Designing and/or decorating a castle tower on CAD software.</p> <p>Constructing a range of 3D geometric shapes using nets.</p> <p>Creating special features for individual designs.</p> <p>Making facades from a range of recycled materials.</p> <p>Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison to the original design.</p> <p>Suggesting points for modification of the individual designs</p>

<p><b>Possible sequence of lessons – enquiry questions? I-6?</b></p>	<p><b>Lesson 1: Pre Assessment task</b> To know that climate affects food growth</p> <p><b>Lesson 2:</b> To understand the advantages of eating seasonal foods grown in the UK</p> <p><b>Lesson 3:</b> To create a recipe that is healthy and nutritious using seasonal vegetables</p> <p><b>Lesson 4: Post Assessment task</b> To safely follow a recipe when cooking</p>	<p><b>Lesson 1: Pre Assessment task</b> To understand the impact of the digital revolution in the world of (D&amp;T) product design</p> <p><b>Lesson 2:</b> To write a program to initiate a flashing LED panel after button press and/or automatically initiate using the Micro:bit light sensing, as part of an eCharm</p> <p><b>Lesson 3:</b> To create and decorate a foam pouch for the eCharm, using a template</p> <p><b>Lesson 4: Post Assessment task</b> To design a display badge and/or stand using CAD (computer-aided design) software for an eCharm product</p>	<p><b>Lesson 1: Pre Assessment task</b> To recognise how multiple shapes (2D and 3D) are combined to form a strong and stable structure</p> <p><b>Lesson 2:</b> To design a castle</p> <p><b>Lesson 3:</b> To construct 3D nets</p> <p><b>Lesson 4:</b> To construct and evaluate my final product</p>
<p><b>End of unit goals. Suggested assessment task?</b></p>	<p>Children will make a tart and will:</p> <p>Know how to prepare a kitchen to cook in.</p> <p>Know how to prepare themselves to start cooking.</p> <p>Know the basic rules of food contamination.</p> <p>Use, store and clean a knife safely.</p> <p>Follow a recipe to make a tart.</p>	<p>Children will be able to design and build a badge using CAD software and be able to:</p> <p>Give a brief explanation of the digital revolution and/or remember key examples.</p> <p>Suggest a feature from the Micro:bit that is suitable for an eCharm.</p> <p>Write a program that initiates a flashing LED panel, or another pattern, on the Micro:bit when a button is pressed.</p> <p>Identify errors, if testing is unsuccessful, by comparing their code to a correct example.</p>	<p>Children will be able to design and build a castle and be able to:</p> <p>Draw and label a simple castle that includes the most common features.</p> <p>Recognise that a castle is made up of multiple 3D shapes.</p> <p>Design a castle with key features which satisfy a given purpose.</p> <p>Score or cut along lines on the net of a 2D shape.</p>

		<p>Explain the basic functionality of their finished program.</p> <p>Suggest key features for a pouch, with some consideration for the overall theme and the user.</p> <p>Use a template when cutting and assembling a pouch, with some support.</p> <p>Describe what is meant by 'point of sale display' with an example.</p> <p>Follow basic design requirements using computer-aided design, drawing at least one shape with a text box and bright colours, following a demonstration.</p> <p>Evaluate their design.</p>	<p>Use glue to securely assemble geometric shapes.</p> <p>Utilise skills to build a complex structure from simple geometric shapes.</p> <p>Evaluate their work by answering simple questions.</p>
<p><b>Suggestions for the development of deeper learning</b></p>	<p><b><u>Lesson 1:</u></b> Will need to consider quantities and costs when comparing recipes. These children could be extended to look at when the ingredients needed for their skewers would need to be planted. Encourage accurate slicing of the fruit for all pieces to be of a similar size.</p> <p><b><u>Lesson 2:</u></b> If researching recipes, they should also be encouraged to check quantities and work out if the ingredients used are in season. Can be given greater independence with some practical activities, although still supervised at high-risk points (refer to your school policies and risk assessments). Encourage these pupils to be</p>	<p><b><u>Lesson 1:</u></b> Introduce the light sensor as an additional feature to consider, and ask questions around the pros and cons of automatic devices. Challenge them to be creative when thinking about points five to six of the design criteria.</p> <p><b><u>Lesson 2:</u></b> Allow the pupils to explore beyond the prescribed Micro: bit program and extension code. Pause at points through the Micro:bit programming and see if the pupils can suggest what code comes next. Challenge them to the extension tasks to extend their current program to include</p>	<p><b><u>Lesson 1:</u></b> Can label their castle drawing with the key castle features and explain which of the 3D shapes help to make the castle strong and stable based on their previous Structures unit knowledge and/or can justify their own thoughts and ideas as to why this might be.</p> <p><b><u>Lesson 2:</u></b> Should advance to more complex geometric shapes. Can attempt to design their own nets (i.e. hexagonal prisms). Can create specific features relevant to the person or purpose they are designing for.</p>

	<p>more accurate when slicing their fruits to be of a similar size.</p> <p><b><u>Lesson 3:</u></b> Should consider the taste, texture and smell of their recipes. They should also consider appearance. They may want to adapt this using a different cheese, herb or base.</p> <p><b><u>Lesson 4:</u></b> A thorough understanding of how to work safely and hygienically when cooking and working independently to follow the steps within a recipe to create a successful end result.</p>	<p>button B and write a new program to use the Micro:bit light sensing capabilities.</p> <p><b><u>Lesson 3:</u></b> Should be challenged to explain and justify their choices for their key features and design ideas.</p> <p><b><u>Lesson 4:</u></b> Extend the practical element to include decorative edges, button-covers and borders around the screen on the case.</p> <p><b><u>Lesson 5:</u></b> Should be encouraged to work independently and justify their choices in greater detail. Offer a greater level of challenge by specifying further requirements of the POS badge or by providing the extension 'POS stand'.</p>	<p><b><u>Lesson 3:</u></b> Should create more complex and wide-ranging structures. Should use more sophisticated configurations using a mixture of their own nets and collected objects.</p> <p><b><u>Lesson 4:</u></b> Should create more complex structures and include more sophisticated configurations from a mixture of their own nets and collected objects.</p>
<b>Enrichment opportunities</b>			
<b>Links to future learning</b>	<p>Year 5 – Cooking &amp; Nutrition – What could be healthier?</p> <p>Year 6 – Cooking &amp; Nutrition (stand-alone lesson) – pineapple turnover cake</p>		

<b>CLASS / YEAR GROUP 4</b>			
	<b>Autumn 1/2</b>	<b>Spring 1/2</b>	<b>Summer 1/2</b>

Focus	Structures	Mechanical systems	Electrical systems
Topic	Pavilions	Slingshot cars	Torches
<p><b>National Curriculum</b></p> <p><b>EYFS Statutory Framework</b></p>	<p><b><u>Design</u></b></p> <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.</p> <p><b><u>Make</u></b></p> <p>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>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p><b><u>Evaluate</u></b></p> <p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider</p>	<p><b><u>Design</u></b></p> <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design.</p> <p><b><u>Make</u></b></p> <p>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>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <p><b><u>Evaluate</u></b></p> <p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p><b><u>Design</u></b></p> <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p><b><u>Make</u></b></p> <p>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><b><u>Evaluate</u></b></p> <p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p> <p>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p>

	the views of others to improve their work.	Understand how key events and individuals in design and technology have helped shape the world.			
		Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].			
<b>Key Vocabulary</b>	Design criteria Natural Structure Innovative 3D Shapes	chassis energy kinetic mechanism air resistance design	structure graphics research model template	batter bulb buzzer conductor circuit circuit diagram electricity insulator series circuit switch component design design criteria diagram	target audience input recyclable theme aesthetics assemble equipment ingredients packaging properties sketch test evaluation LED model shape
<b>Prior Knowledge (indicate year group)</b>	EYFS Structures- Junk Modelling Y1 Structures- Constructing windmills Y2 Structures- Baby bear's chairs Y3 Structures- Constructing a castle				
<b>Key Knowledge (Substantive)</b>	To understand what a frame structure is. To know that a 'free-standing' structure is one which can stand on its own To know that a pavilion is a decorative building or structure for leisure activities.	To understand that all moving things have kinetic energy.  To understand that kinetic energy is the energy that something (object/person) has by being in motion.		To understand that electrical conductors are materials which electricity can pass through.  To understand that electrical insulators are materials which electricity cannot pass through.	



	<p>To know that cladding can be applied to structures for different effects.</p> <p>To know that aesthetics are how a product looks.</p> <p>To know that a product's function means its purpose.</p> <p>To understand that the target audience means the person or group of people a product is designed for.</p> <p>To know that architects consider light, shadow and patterns when designing</p>	<p>To know that air resistance is the level of drag on an object as it is forced through the air.</p> <p>To understand that the shape of a moving object will affect how it moves due to air resistance.</p>	<p>To know that a battery contains stored electricity that can be used to power products.</p> <p>To know that an electrical circuit must be complete for electricity to flow.</p> <p>To know that a switch can be used to complete and break an electrical circuit.</p>
<p><b>Key Skills (Disciplinary)</b></p>	<p>Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect.</p> <p>Building frame structures designed to support weight.</p> <p>Creating a range of different shaped frame structures.</p> <p>Making a variety of free standing frame structures of different shapes and sizes.</p> <p>Selecting appropriate materials to build a strong structure and cladding.</p> <p>Reinforcing corners to strengthen a structure.</p> <p>Creating a design in accordance with a plan.</p> <p>Learning to create different textural effects with materials</p>	<p>Designing a shape that reduces air resistance.</p> <p>Drawing a net to create a structure from.</p> <p>Choosing shapes that increase or decrease speed as a result of air resistance.</p> <p>Personalising a design.</p> <p>Measuring, marking, cutting and assembling with increasing accuracy.</p> <p>Making a model based on a chosen design.</p> <p>Evaluating the speed of a final product based on: the effect of shape on speed and the accuracy of workmanship on performance.</p>	<p>Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas.</p> <p>Making a torch with a working electrical circuit and switch.</p> <p>Using appropriate equipment to cut and attach materials.</p> <p>Assembling a torch according to the design and success criteria.</p> <p>Evaluating electrical products.</p> <p>Testing and evaluating the success of a final product.</p>

	<p>Evaluating structures made by the class.</p> <p>Describing what characteristics of a design and construction made it the most effective.</p> <p>Considering effective and ineffective designs.</p>		
<p><b>Possible sequence of lessons – enquiry questions? 1-6?</b></p>	<p><b>Lesson 1: Pre Teaching Assessment</b> To create a range of different shaped frame structures</p> <p><b>Lesson 2:</b> To design a structure</p> <p><b>Lesson 3-4:</b> To build a frame structure</p> <p><b>Lesson 5:</b> To add cladding to a frame structure</p> <p><b>Lesson 6:</b> Post Teaching Assessment To evaluate my project (and adapt my design)</p>	<p><b>Lesson 1: Pre Teaching Assessment</b> To build a car chassis.</p> <p><b>Lesson 2:</b> To design a shape that reduces air resistance.</p> <p><b>Lesson 3:</b> To design a shape that reduces air resistance.</p> <p><b>Lesson 4:</b> To assemble and test my completed product.</p>	<p><b>Lesson 1: Pre Teaching Assessment</b> To learn about electrical items and how they work.</p> <p><b>Lesson 2:</b> To analyse and evaluate electrical products.</p> <p><b>Lesson 3:</b> To design a product to fit a set of specific user needs.</p> <p><b>Lesson 4:</b> To make and evaluate a torch.</p>
<p><b>End of unit goals. Suggested assessment task?</b></p>	<p>Design and make a pavilion and be able to:</p> <p>Produce a range of free-standing frame structures of different shapes and sizes.</p> <p>Design a pavilion that is strong, stable and aesthetically pleasing.</p>	<p>Design and make a slingshot car and:</p> <p>Work independently to produce an accurate, functioning car chassis.</p> <p>Design a shape that is suitable for the project.</p>	<p>Design and make a torch and be able to:</p> <p>Identify electrical products and explain why they are useful.</p> <p>Help to make a working switch.</p> <p>Identify the features of a torch and how it works.</p>

	<p>Select appropriate materials and construction techniques to create a stable, free-standing frame structure.</p> <p>Select appropriate materials and techniques to add cladding to their pavilion.</p>	<p>Attempt to reduce air resistance through the design of the shape.</p> <p>Produce panels that will fit the chassis and can be assembled effectively using the tabs they have designed.</p> <p>Construct car bodies effectively.</p> <p>Conduct a trial accurately and draw conclusions and improvements from the results.</p>	<p>Describe what makes a torch successful.</p> <p>Create suitable designs that fit the success criteria and their own design criteria.</p> <p>Create a functioning torch with a switch according to their design criteria.</p>
<p><b>Suggestions for the development of deeper learning</b></p>	<p><b><u>Lesson 1:</u></b> Should explore larger, more complex structures (eg: with overhangs) and should experiment with different ideas.</p> <p><b><u>Lesson 2:</u></b> Should be encouraged to produce creative landscapes, clearly linked to the theme and experiment with different ideas.</p> <p><b><u>Lesson 3/4:</u></b> Should be encouraged to produce creative, complex structures clearly linked to their theme and to experiment with using more sophisticated construction techniques – eg: card corners instead of glue.</p> <p><b><u>Lesson 3/4:</u></b></p>	<p><b><u>Lesson 1:</u></b> Making a high quality and functioning car chassis by implementing neat angles and secure glueing/assembly. Adding additional strengthening features to their design. An awareness that weight affects the speed an object can travel at.</p> <p><b><u>Lesson 2:</u></b> Designing a sophisticated shape that fully embraces the concept of reducing air resistance. Including sophisticated graphic design on the product.</p> <p><b><u>Lesson 3:</u></b> Producing the above neatly and accurately with a more sophisticated shape and graphic design.</p> <p><b><u>Lesson 4:</u></b></p>	<p><b><u>Lesson 1:</u></b> Identifying the features of electrical products, making a working switch and suggesting other ways this could be made, including mentioning conductors.</p> <p><b><u>Lesson 2:</u></b> Explaining which features are important to all torches and which are tailored to the target audience as well as generating creative suggestions for how the components could be made.</p> <p><b><u>Lesson 3:</u></b> Applying the outcome of the evaluation task to improve their design and adding special features specifically designed for their 'client'.</p> <p><b><u>Lesson 4:</u></b></p>

	<p>Should be encouraged to produce creative, complex structures clearly linked to their theme and to experiment with using more sophisticated construction techniques – eg: card corners instead of glue</p> <p><b>Lesson 5:</b> Should experiment with different cladding materials for a varied final effect. They should also create a landscape to give context to their pavilion.</p>	<p>Constructing the car bodies independently and to a high-quality finish. Testing a wider range of features of the vehicles and therefore drawing on a wider range of conclusions as to the ways their cars could be improved.</p>	<p>Creating a torch with special features to suit their ‘client’ and discussing how these components could be used in other products.</p>
<b>Enrichment opportunities</b>			
<b>Links to future learning</b>	Year 6 Structures- Playgrounds		

	<b>Autumn 1/2</b>	<b>Spring 1/2</b>	<b>Summer 1/2</b>
<b>Focus</b>	<b>Electrical systems</b>	<b>Mechanical systems</b>	<b>Cooking and nutrition</b>
<b>Topic</b>	<b>Doodlers</b>	<b>Pop-up books</b>	<b>What could be healthier?</b>

<p><b>National Curriculum</b></p>	<p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p>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>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p> <p>Apply their understanding of computing to program, monitor and control their products</p> <p>Understand and apply principles of a healthy and varied diet.</p>	<p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p>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>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>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].</p>	<p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p>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>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p> <p>Apply their understanding of computing to program, monitor and control their products</p>
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	<p>Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>		<p>Understand and apply principles of a healthy and varied diet.</p> <p>Prepare and cook variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	
<b>Key Vocabulary</b>	<p>circuit component configuration current develop DIY investigate</p>	<p>motor motorised problem solve product analysis series circuit stable target user</p>	<p>design input motion mechanism criteria research reinforce model</p>	<p>beef reared processed ethical diet ingredients supermarket farm balanced</p>
<b>Prior Knowledge (indicate year group)</b>	<p>Electrical Systems : Torches (Year 4) Identify electrical products and explain why they are useful.</p> <p>Help to make a working switch.</p> <p>Create a functioning torch with a switch according to their design criteria.</p>		<p>Mechanical systems – making a slingshot car (Year 4): Work independently to produce an accurate, functioning car chassis. Design a shape that is suitable for the project. Attempt to reduce air resistance through the design of the shape. Produce panels that will fit the chassis and can be assembled effectively using the tabs they have designed. Construct car bodies effectively. Conduct a trial accurately and draw conclusions and improvements from the results.</p>	<p>Cooking &amp; Nutrition –Eating seasonally (Year 3)</p> <p>Follow a recipe, with some support.</p> <p>Describe some of the features of a biscuit based on taste, smell, texture and appearance.</p> <p>Adapt a recipe by adding extra ingredients to it.</p> <p>Plan a biscuit recipe within a budget.</p>

<p><b>Key Knowledge (Substantive) Facts</b></p>	<p>To know that series circuits only have one direction for the electricity to flow.</p> <p>To know when there is a break in a series circuit, all components turn off.</p> <p>To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin.</p> <p>To know a motorised product is one which uses a motor to function</p> <p>To know that product analysis is critiquing the strengths and weaknesses of a product.</p> <p>To know that 'configuration' means how the parts of a product are arranged.</p>	<p>To know that mechanisms control movement.</p> <p>To understand that mechanisms can be used to change one kind of motion into another.</p> <p>To understand how to use sliders, pivots and folds to create paper-based mechanisms.</p> <p>To know that a design brief is a description of what I am going to design and make.</p> <p>To know that designers often want to hide mechanisms to make a product more aesthetically pleasing.</p>	<p>To understand where meat comes from – learning that beef is from cattle and how beef is reared and processed, including key welfare issues.</p> <p>To know that I can adapt a recipe to make it healthier by substituting ingredients.</p> <p>To know that I can use a nutritional calculator to see how healthy a food option is.</p> <p>To understand that 'cross-contamination' means that bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects.</p>
<p><b>Key Skills (Disciplinary) How we use the facts</b></p>	<p>Design</p> <p>Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product.</p> <p>Developing design criteria based on findings from investigating existing products.</p> <p>Developing design criteria that clarifies the target user.</p> <p>Make</p>	<p>Designing a pop-up book which uses a mixture of structures and mechanisms.</p> <p>Naming each mechanism, input and output accurately.</p> <p>Storyboarding ideas for a book.</p> <p>Following a design brief to make a pop up book, neatly and with focus on accuracy.</p> <p>Making mechanisms and/or structures using sliders, pivots and folds to produce movement.</p>	<p>Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients.</p> <p>Writing an amended method for a recipe to incorporate the relevant changes to ingredients.</p> <p>Designing appealing packaging to reflect a recipe.</p> <p>Cutting and preparing recipes safely.</p>

	<p>Altering a product's form and function by tinkering with its configuration.</p> <p>Making a functional series circuit, incorporating a motor.</p> <p>Constructing a product with consideration for the design criteria.</p> <p>Breaking down the construction process into steps so that others can make the product.</p> <p>Evaluate Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses.</p> <p>Determining which parts of a product affect its function and which parts affect its form.</p> <p>Analysing whether changes in configuration positively or negatively affect an existing product.</p> <p>Peer evaluating a set of instructions to build a product</p>	<p>Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.</p> <p>Evaluating the work of others and receiving feedback on own work.</p> <p>Suggesting points for improvement.</p>	<p>Using equipment safely, including knives, hot pans and hobs.</p> <p>Knowing how to avoid cross-contamination.</p> <p>Following a step-by-step method carefully to make a recipe.</p> <p>Identifying the nutritional differences between different products and recipes.</p> <p>Identifying and describing healthy benefits of food groups.</p>
<p>Possible sequence of lessons – enquiry questions? 1-6?</p>	<p>Lesson 1 How are motors used in electrical products?</p> <p>Lesson 2 What factors affect a product's form and function in an existing product?</p> <p>Lesson 3-5 Improve a product</p> <p>Lesson 6 Can you develop a DIY kit for someone else?</p>	<p>Lesson 1: To design a pop-up book</p> <p>Lesson 2: To follow my design brief to make my pop up book</p> <p>Lesson 3: To use layers and spacers to cover the working of mechanisms</p>	<p>Lesson 1: To understand where food comes from</p> <p>Lesson 2: To understand the term 'healthy'</p> <p>Lesson 3: To adapt a traditional recipe</p>



		Lesson 4: To create a high-quality product suitable for a target user	Lesson 4: To complete a food product
End of unit goals. Suggested assessment task?	<p>Determine what makes an effective, functional Doodler.</p> <p>Write a design criteria based on the knowledge learned from the investigation in the previous lesson.</p> <p>To put findings from research into practice to develop a unique product.</p> <p>To incorporate an electrical system that uses a motor.</p> <p>Develop a new Doodler design and construct it.</p>	<p>Produce a suitable plan for each page of their book.</p> <p>Produce the structure of the book.</p> <p>Assemble the components necessary for all their structures/mechanisms.</p> <p>Hide the mechanical elements with more layers using spacers where needed.</p> <p>Use a range of mechanisms and structures to illustrate their story and make it interactive for the users.</p> <p>Use appropriate materials and captions to illustrate the story.</p>	<p>Understand how beef gets from the farm to our plates.</p> <p>Present a subject as a poster with clear information in an easy to read format.</p> <p>Contribute ideas as to what a 'healthy meal' means.</p> <p>Notice the nutritional differences between different products and recipes.</p> <p>Recognise nutritional differences between two similar recipes and give some justification as to why this is.</p> <p>Work as a team to amend a bolognese recipe with healthy adaptations.</p> <p>Follow a recipe to produce a healthy bolognese sauce.</p> <p>Design packaging that promotes the ingredients of the bolognese.</p>

<p><b>Suggestions for the development of deeper learning</b></p>	<p>Lesson 1: Challenge them to suggest other motorised products and justify why they think they operate with a motor Could a motor be used for any other reasons, other than electric rotation?</p> <p>Lesson 2: Assign them the job of reporting their teams' findings at the end of the investigation.</p> <p>Lesson 3: Ask the pupils to include detailed annotations on their final Doodler design sketch to explain their decisions Ask the pupils to include a switch as part of their design. Give them the 'class technician' role to support their peers' Doodler configurations if they finish ahead of time.</p> <p>Lesson 4: Ask pupils to consider where the user could make errors and provide pre-emptive advice to fix them. This encourages pupils to reflect on the assembly process previous lesson.</p>	<p>Lesson 1: can include a range of different mechanisms and structures on each page and articulate how they could be made.</p> <p>Lesson 2: Should work independently and be encouraged to make use of more complex mechanisms/sophisticated structures.</p> <p>Lesson 3: Should be encouraged to introduce a diverse range of mechanisms/structures or ones that are a combination of the two.</p> <p>Lesson 4: Including a wider range of more sophisticated mechanisms and structures. High-quality making and sophistication of the surface decoration will be more demanding.</p>	<p>Lesson 1: Might want to make a poster on a different subject relating to the rearing of cattle and the process that brings meat to our shops.</p> <p>Lesson 2: Will give more thought to recipe ingredients; for example, the fat percentage of the beef used and also how to make the sauce healthier by adapting the quantities of ingredients considered potentially harmful if consumed in large quantities, ie: salt (including stock) and fats, eg: oils.</p> <p>Lesson 3: Should articulate the reasons for their opinions as to the healthiness of the recipes. They could create a brand and product name for their sauce, justifying why it reflects the values of the product.</p> <p>Lesson 4: Encourage these children to design product packaging specifically for attracting their target audience. For example, a sauce for a family with children might be brightly coloured with cartoon vegetables. Whereas a sauce aimed at professional couples might use italicised writing and promote the quality of the ingredients.</p>
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<b>Enrichment opportunities</b>			
<b>Links to future learning</b>	n/a	n/a	n/a


<b>CLASS / YEAR GROUP 6</b>			
	<b>Autumn 1/2</b>	<b>Spring 1/2</b>	<b>Summer 1/2</b>
<b>Focus</b>	Textiles	Structures	Digital world
<b>Topic</b>	Waistcoats	Playgrounds	Navigating the world
<b>National Curriculum EYFS Statutory Framework</b>	<p><b>Design</b> Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.</p> <p><b>Make</b> Select from and use a wider range of tools and equipment to perform practical</p>	<p><b>Design</b> Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.</p> <p><b>Make</b> Select from and use a wider range of tools and equipment to perform practical tasks</p>	<p><b>Design</b> Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.</p> <p><b>Make</b> 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>tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p> <p><b>Evaluate</b> Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>		<p>[for example, cutting, shaping, joining and finishing], accurately.</p> <p><b>Evaluate</b> Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p>		<p><b>Evaluate</b> Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Apply their understanding of computing to program, monitor and control their products.</p>	
<p><b>Concepts (If relevant)</b></p>						
<p><b>Key Vocabulary</b></p>	<p>annotate decorate design criteria fabric</p>	<p>target customer waistcoat waterproof</p>	<p>apparatus design criteria equipment</p>	<p>playground landscape features cladding</p>	<p>smart smartphone equipment navigation cardinal compass application (apps) pedometer GPS tracker design brief design criteria client function program duplicate</p>	<p>loop variable value if statement boolean corrode mouldable lightweight sustainable design environmentally friendly biodegradable recyclable product lifecycle product lifespan</p>

					replica	
<p><b>Prior Knowledge (indicate year group)</b></p>	<p>EYFS Textiles- Bookmarks Year 1 Textiles- Puppets Year 3 Textiles (Stand alone) Cross-stitch and applique- Xmas decoration</p>	<p><b>Structures – bridges Y5:</b> Identify stronger and weaker shapes.</p> <p>Recognise that supporting shapes can help increase the strength of a bridge, allowing it to hold more weight.</p> <p>Identify beam, arch and truss bridges and describe their differences.</p> <p>Use triangles to create simple truss bridges that support a load (weight).</p> <p>Cut beams to the correct size, using a cutting mat.</p> <p>Smooth down any rough cut edges with sandpaper.</p> <p>Follow each stage of the truss bridge creation as instructed by their teacher.</p> <p>Complete a bridge, with varying ranges of accuracy and finish, supported by the teacher.</p> <p>Identify some areas for improvement, reinforcing their bridges as necessary.</p>	<p><b>Digital World – Electronic charm (Y4)</b> Give a brief explanation of the digital revolution and/or remember key examples.</p> <p>Suggest a feature from the Micro:bit that is suitable for an eCharm.</p> <p>Write a program that initiates a flashing LED panel, or another pattern, on the Micro:bit when a button is pressed.</p> <p>Identify errors, if testing is unsuccessful, by comparing their code to a correct example. Explain the basic functionality of their finished program.</p> <p>Suggest key features for a pouch, with some consideration for the overall theme and the user.</p> <p>Use a template when cutting and assembling a pouch, with some support.</p> <p>Describe what is meant by ‘point of sale display’ with an example.</p> <p>Follow basic design requirements using computer-aided design, drawing at least one shape with a text box and bright colours, following a demonstration.</p>			

			Evaluate their design.
<b>Key Knowledge (Substantive)</b>	<p>To understand that it is important to design clothing with the client/ target customer in mind.</p> <p>To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric.</p> <p>To understand the importance of consistently sized stitches.</p>	<p>To know that structures can be strengthened by manipulating materials and shapes.</p> <p>To understand what a 'footprint plan' is.</p> <p>To understand that in the real world, design can impact users in positive and negative ways.</p> <p>To know that a prototype is a cheap model to test a design idea.</p>	<p>To know that accelerometers can detect movement.</p> <p>To understand that sensors can be useful in products as they mean the product can function without human input.</p> <p>To know that designers write design briefs and develop design criteria to enable them to fulfil a client's request.</p> <p>To know that 'multifunctional' means an object or product has more than one function.</p> <p>To know that magnetometers are devices that measure the Earth's magnetic field to determine which direction you are facing.</p>
<b>Key Skills (Disciplinary)</b>	<p>Designing a waistcoat in accordance to a specification linked to set of design criteria.</p> <p>Annotating designs, to explain their decisions.</p> <p>Using a template when cutting fabric to ensure they achieve the correct shape.</p> <p>Using pins effectively to secure a template to fabric without creases or bulges.</p>	<p>Designing a playground featuring a variety of different structures, giving consideration to how the structures will be used.</p> <p>Considering effective and ineffective designs.</p> <p>Building a range of play apparatus structures drawing upon new and prior knowledge of structures.</p> <p>Measuring, marking and cutting wood to create a range of structures.</p>	<p>Writing a design brief from information submitted by a client.</p> <p>Developing design criteria to fulfil the client's request.</p> <p>Developing a product idea through annotated sketches.</p> <p>Placing and manoeuvring 3D objects, using CAD.</p> <p>Changing the properties of, or combine one or more 3D objects, using CAD.</p>

	<p>Marking and cutting fabric accurately, in accordance with their design.</p> <p>Sewing a strong running stitch, making small, neat stitches and following the edge.</p> <p>Tying strong knots.</p> <p>Decorating a waistcoat, attaching features (such as appliqué) using thread.</p> <p>Finishing the waistcoat with a secure fastening (such as buttons).</p> <p>Learning different decorative stitches.</p> <p>Sewing accurately with evenly spaced, neat stitches.</p> <p>Reflecting on their work continually throughout the design, make and evaluate process.</p>	<p>Using a range of materials to reinforce and add decoration to structures.</p> <p>Improving a design plan based on peer evaluation.</p> <p>Testing and adapting a design to improve it as it is developed.</p> <p>Identifying what makes a successful structure.</p>	<p>Considering materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo).</p> <p>Explaining material choices and why they were chosen as part of a product concept.</p> <p>Programming an N,E, S,W cardinal compass.</p> <p>Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool.</p> <p>Developing an awareness of sustainable design.</p> <p>Explaining the key functions and features of my navigation tool to the client as part of a product concept pitch.</p>
<p><b>Possible sequence of lessons – enquiry questions? 1-6?</b></p>	<p><b>Lesson 1: Pre-Teaching Assessment</b> To Design a Waistcoat</p> <p><b>Lesson 2:</b> To mark and cut fabric according to a design</p> <p><b>Lesson 3/4:</b> To assemble a waistcoat</p> <p><b>Lesson 5:</b> To decorate your waistcoat</p>	<p><b>Lesson 1: Pre-Teaching Assessment</b> To design a playground with a variety of structures</p> <p><b>Lesson 2:</b> To build a range of structures</p> <p><b>Lesson 3:</b> To improve and add detail to structures</p> <p><b>Lesson 4: Post- Teaching Assessment</b> To create the surrounding landscape</p>	<p><b>Lesson 1: Pre-Teaching Assessment</b> To write a design brief and criteria based on a client request.</p> <p><b>Lesson 2:</b> To write a program to include multiple functions as part of a navigation device.</p> <p><b>Lesson 3:</b> To develop a sustainable product concept.</p> <p><b>Lesson 4: Post- Teaching Assessment</b> To develop 3D CAD skills to produce a virtual</p>

	<p><b>Lesson 6: Post- Teaching Assessment</b> To evaluate my design</p>		<p>model to present a pitch to ‘sell’ the product to a specified client.</p>
<p><b>End of unit goals. Suggested assessment task?</b></p>	<p>Children will design and make a waistcoat and be able to:</p> <p>Consider a range of factors in their design criteria and use this to create a waistcoat design.</p> <p>Use a template to mark and cut out a design.</p> <p>Use a running stitch to join fabric to make a functional waistcoat.</p> <p>Attach a secure fastening, as well as decorative objects.</p> <p>Evaluate their final product.</p> 	<p>Children will design and build a fairground and be able to:</p> <p>Create five apparatus designs, applying the design criteria to their work.</p> <p>Make suitable changes to their work after peer evaluation.</p> <p>Make roughly three different structures from their plans using the materials available.</p> <p>Complete their structures, improving the quality of their rough versions and applying some cladding to a few areas.</p> <p>Secure their apparatus to a base.</p> <p>Make a range of landscape features using a variety of materials which will enhance their apparatus.</p>	<p>Incorporate key information from a client’s design request such as ‘multifunctional’ and ‘compact’ in their design brief.</p> <p>Write a program that displays an arrow to indicate cardinal compass directions with an ‘On start’ loading screen.</p> <p>Identify errors (bugs) in the code and suggest ways to fix (debug) them.</p> <p>Self and peer evaluate a product concept against a list of design criteria with basic statements.</p> <p>Identify key industries that use 3D CAD modelling and why.</p> <p>Recall and describe the name and use of key tools used in Tinkercad (CAD) software.</p> <p>Combine more than one object to develop a finished 3D CAD model in Tinkercad.</p> <p>Complete a product pitch plan that includes key information.</p>



<p><b>Suggestions for the development of deeper learning</b></p>	<p><b>Lesson 1:</b> Should add extra details to their designs and fully label all decorations and materials, including colours and where they will join the fabric.</p> <p><b>Lesson 2:</b> Should cut neatly and accurately, ensuring that their fabric shape closely matches their design.</p> <p><b>Lesson 3/4:</b> Should take care to ensure their stitches are small, neat and follow the correct lines.</p> <p><b>Lesson 5:</b> Should ensure that any words and symbols are straight and balanced (in terms of composition) on the garment.</p>	<p><b>Lesson 1:</b> Should generate a wide range of creative ideas, incorporating a variety of different and sophisticated structures.</p> <p><b>Lesson 2:</b> To increase the challenge when drawing a plan for their playground, provide them with squared paper, sample materials for building apparatus with and measuring equipment to draw apparatus to scale.</p> <p><b>Lesson 3/4:</b> Should be encouraged to work independently to produce a range of good quality, complex structures.</p> <p><b>Lesson 3/4:</b> Should produce a range of good quality, complex structures with sophisticated cladding techniques.</p> <p><b>Lesson 5:</b> Should use materials in an imaginative way to create their own ideas.</p>	<p><b>Lesson 1:</b> Highlighting key information that indirectly lends itself to a design solution, such as 'outdoor equipment' and justifying their selections with a detailed explanation, 'the product will need to be durable and waterproof'; writing a design brief from scratch, basing their structure on the bullet points provided and including information gathered from the client's letter; completing points 3 and 6 of the design criteria with ambitious choices that they will solve by tinkering in the <a href="#">'Micro:bit MakeCode editor'</a>.</p> <p><b>Lesson 2:</b> explaining in detail the program's functions and how they will be useful as part of a navigation tool; including and justifying an additional function they have developed by tinkering with the micro:bit MakeCode editor.</p> <p><b>Lesson 3/4:</b> explaining why and how their material choices are sustainable for the planet; including detailed annotated features in their product concept based on information pulled from the client's (Aria's) letter; evaluating with constructive criticism to improve the concept.</p> <p><b>Lesson 3/4:</b> explaining industries they feel could find 3D CAD modelling useful; combining more than one object to create a replica finished 3D CAD model of their product concept in</p>
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			<p>Tinkercad; including additional features on their product concept directly in Tinkercad.</p> <p><b>Lesson 5:</b>          completing a detailed product pitch plan; recalling their answers from planned questions and answering additional unexpected questions with confidence; using visual references on their pitch poster to describe and explain their micro:bit program and 3D CAD model.</p>
<b>Enrichment opportunities</b>			
<b>Links to future learning</b>	KS3 D.T. Textiles		