

## Links to the Early Years Foundation Stage Curriculum

In EYFS, design and technology begins with exploration. Children use and refine a variety of materials to express their ideas and feelings. Children return to and build on their previous learning, refining ideas and developing their ability to represent them. They create collaboratively, sharing ideas, resources and skills through building and modelling designs of their own choice. The origins for effective key stage 1 and key stage 2 design and technology curriculum planning and design, begins in the early years and can be evidenced through the three characteristics of effective teaching and learning:

- playing and exploring – children investigate and experience things, and ‘have a go’
- active learning – children concentrate and keep on trying if they encounter difficulties, and enjoy achievements
- creating and thinking critically – children have and develop their own ideas, make links between ideas, and develop strategies for doing things.

Additionally, the taught EY curriculum is paramount to introducing the concept of product design – for it is in den making, shelter and canopy making, as well as through imaginative play where the beginnings of the concepts and ideas of true design problem solving are formulated.

### Subject: Design and Technology Year group: 1

Autumn		Spring		Summer	
1	2	1	2	1	2
Overview	Overview	Overview	Overview	Overview	Overview
	<p>In Reception children will have had experience with making paper books and making craft models.</p> <p>Pupils will Identify whether a mechanism is a side-to-side slider or an up-and-down slider and determine what movement the mechanism will make. Clearly label drawings to show which parts of their design will move and in which direction. Make a picture, which meets the design criteria, with parts that move purposefully as planned. Evaluate the main strengths and weaknesses of their design and suggest alterations</p>		<p>Pupils will learn to join fabrics together using pins, staples or glue. They will design a puppet and use a template.</p> <p>The, they will join their two puppets’ faces together as one. Finally, decorating a puppet to match their design.</p>	<p>The main context for this learning is science, where children will be learning about plants. As part of this children will learn about how fruit and vegetables grow.</p> <p>Children will: Describe fruits and vegetables and explain why they are a fruit or a vegetable. Name a range of places that fruits and vegetables grow. Describe basic characteristics of fruit and vegetables. Prepare fruits and vegetables to make a smoothie.</p>	<p>The main context for learning is history and maths. Pupils are learning about castles in history, and in this topic, they will use measuring skills from maths to build their castles. This also builds on work from Reception when the pupils made houses for the Three Little Pigs. This unit of work allows the pupils to build a structure using a range of DT skills (designing a purposeful thing, making joins, cutting, using a range of tools...)</p> <p>By the end of the unit, pupils will have communicated their ideas through drawings, used a range of tools and skills to build the catapult, tested it and improved the design of the catapult. Pupils will have tested all the catapults in the class to see which sends a missile the furthest by measuring the distance travelled.</p>
	<p><b>Key Vocab:</b> Design, design criteria, evaluation, mechanism, model, sliders, stencils, template, test</p>		<p><b>Key Vocab:</b> Decorate, design, fabric, glue, model, hand puppet, safety pin, sew, staple, stencil, template</p>	<p><b>Key Vocab:</b> Fruit, vegetable, seed, leaf, root, stem, smoothie, healthy, carton, design, flavour, peel, slice</p>	<p><b>Key Vocab:</b> Distance, measurement, propel, range, shoot,</p>
	<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>• To know that a mechanism is the parts of</li> </ul>		<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>• To know that ‘joining technique’ means</li> </ul>	<p><b>Key Knowledge:</b></p>	

	<ul style="list-style-type: none"> <li>• an object that move together.</li> <li>• To know that a slider mechanism moves an object from side to side.</li> <li>• To know that a slider mechanism has a slider, slots, guides and an object.</li> <li>• To know that bridges and guides are bits of card that purposefully restrict the movement of the slider.</li> </ul>		<ul style="list-style-type: none"> <li>• connecting two pieces of material together.</li> <li>• To know that there are various temporary methods of joining fabric by using sewing, staples, glue or pins.</li> <li>• To understand that different techniques for joining materials can be used for different purposes.</li> <li>• To understand that a template (or fabric pattern) is used to cut out the same shape multiple times.</li> <li>• To know that drawing a design idea is useful to see how an idea will look.</li> </ul>	<ul style="list-style-type: none"> <li>• To understand the difference between fruits and vegetables.</li> <li>• To understand that some foods typically known as vegetables are actually fruits (e.g. cucumber).</li> <li>• To know that a blender is a machine which mixes ingredients together into a smooth liquid.</li> <li>• To know that a fruit has seeds and a vegetable does not.</li> <li>• To know that fruits grow on trees or vines.</li> <li>• To know that vegetables can grow either above or below ground.</li> <li>• To know that vegetables can come from different parts of the plant.</li> </ul>	
Learning Breakdown	Learning Breakdown	Learning Breakdown	Learning Breakdown	Learning Breakdown	Learning Breakdown
	<p><b>Mechanisms:</b>  <b>Make a moving Christmas Picture book to share with a friend.</b></p> <p><b>Skills:</b></p> <p><b>Design:</b>  Explaining how to adapt mechanisms, using bridges or guides to control the movement. • Designing a moving story book for a given audience.</p> <p><b>Make:</b>  Following a design to create moving models that use levers and sliders.</p> <p><b>Evaluate:</b>  Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed.  Reviewing the success of a product by testing it with its intended audience.</p> <p><b>Knowledge:</b>  To know that a mechanism is the parts of an object that move together.  To know that a slider mechanism moves an object from side to side.</p>		<p><b>Textiles: Puppets (Easter Animals)</b></p> <p><b>Skills:</b></p> <p><b>Design:</b>  Using a template to create a design for a puppet.</p> <p><b>Make:</b>  Cutting fabric neatly with scissors.  Using joining methods to decorate a puppet. Sequencing the steps taken during construction.</p> <p><b>Evaluate:</b>  Reflecting on a finished product, explaining likes and dislikes.</p> <p><b>Knowledge:</b>  To know that 'joining technique' means connecting two pieces of material together. To know that there are various temporary methods of joining fabric by using staples, glue or pins. To understand that different techniques for joining materials can be</p>	<p><b>Food: Making a smoothie</b></p> <p><b>Skills:</b></p> <p><b>Design:</b>  Designing smoothie carton packaging.</p> <p><b>Make:</b>  Chopping fruit and vegetables safely to make a smoothie.  Identifying if a food is a fruit or a vegetable.  Learning where and how fruits and vegetables grow.</p> <p><b>Evaluate:</b>  Tasting and evaluating different food combinations.  Describing appearance, smell and taste.  Suggesting information to be included on packaging.</p> <p><b>Knowledge:</b>  Understanding the difference between fruits and vegetables.</p>	<p><b>Construction: Design, make and test a catapult to attack a castle.</b></p> <p><b>Skills: Choosing tools, cutting, joining (tape, glue, rubber, bands), finishing.</b></p> <p>To research catapults used in medieval times to attack castles. Sketch designs. And annotate.</p> <p><b>Design:</b>  To design your own catapult. Consider which features of catapults you have researched to use. Think about which materials will be the most suitable. (Wood, card, plastic, rubber bands, etc.) Annotate your design to show materials to be used.</p> <p><b>Make:</b>  To make a catapult that will be able to launch an object over a wall 50 cm high. Decide on a missile and test it.</p> <p><b>Evaluate:</b>  To evaluate the product and think about how to improve it. Did it launch</p>

	<p>To know that a slider mechanism has a slider, slots, guides and an object.</p> <p>To know that bridges and guides are bits of card that purposefully restrict the movement of the slider.</p>		<p>used for different purposes. To understand that a template (or fabric pattern) is used to cut out the same shape multiple times. To know that drawing a design idea is useful to see how an idea will look.</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 vegetables can grow either above or below ground.</p> <p>To know that vegetables can come from different parts of the plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber).</p>	<p>the missile over the wall? How could you make it go further/ higher? Amend the design.</p> <p>To retest the improved design.</p> <p>To do a class test to see which catapult design was the most successful. What was it about the design that made it successful?</p>
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Subject: Design and Technology				Year group: 2	
Autumn		Spring		Summer	
1	2	1	2	1	2
Overview	Overview	Overview	Overview	Overview	Overview
	<p>The main context for learning is linked to history - the Great Fire of London. Pupils will have an extensive knowledge of Tudor houses and the impact of the fire. It also links to science of everyday materials.</p> <p>This builds on prior knowledge of designing, making and evaluating from Year 1. They will model their ideas with card and paper and make a critical evaluation of the design. This unit will allow them to gain a greater understanding of materials and building design.</p> <p>At the end of this unit, pupils will be familiar with how to design and make an accurate model, building structures and exploring how they can be made stronger, stiffer and more stable. They will have studied the design of historical buildings and explored the use of different materials. Pupils will be able to evaluate their models against design criteria.</p>		<p>The main context for learning is linked to History – The Victorians. This unit of work will build on prior knowledge from year 1 when the children created hand puppets of familiar story characters.</p> <p>This unit will allow children to explore different designs and different fabrics. This unit will also allow children to learn key information to help them understand clearly the uses of different fabrics and ways to join textiles together.</p> <p>At the end of this unit pupils will be able to evaluate their own designs against a design criteria and use peer feedback to modify a final design</p>		<p>The main context for learning is linked to science. Pupils will draw on their knowledge of a balanced diet and healthy living to design and make their own dips. It also links to their work on coastal habitats, and electricity, in the design and making of a lighthouse model.</p> <p>This unit builds on prior knowledge of model making designing, making and evaluating work.</p> <p>At the end of this unit, pupils will be familiar with how to design and make a healthy dip. They will also use their design skills to build lighthouse models.</p> <p>Pupils will be able to evaluate their final products against a set of design criteria.</p>
	<b>Key Vocab:</b>		<b>Key Vocab:</b>		<b>Key Vocab:</b>

	Function, man-made, mould, natural, stable, stiff, strong, structure, test, weak		Fabric, textile, design criteria, stitch, accurate, stencil, template, secure		Design, design criteria, food groups, nutrition, grip, blend, texture, taste, electric circuit, structure, stiff, strength
	<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>To know that shapes and structures with wide, flat bases or legs are the most stable.</li> <li>To understand that the shape of a structure affects its strength.</li> <li>To know that materials can be manipulated to improve strength and stiffness.</li> <li>To know that a structure is something which has been formed or made from parts.</li> <li>To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move.</li> <li>To know that a 'strong' structure is one which does not break easily.</li> </ul> <p>To know that a 'stiff' structure or material is one which does not bend easily.</p>		<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>To know that textiles are materials including fabric and thread.</li> <li>To know that templates can be used to cut out correct size pieces of fabric accurately.</li> <li>To know that there are different techniques which can be used for joining textiles.</li> </ul>		<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>To know that there are different food types.</li> <li>To know how to safely chop vegetables using a taught grip.</li> <li>To know that food can be blended together.</li> <li>To know that different materials have different properties and are therefore suitable for different uses.</li> <li>To know that it is important to test my design as I go along so that I can solve any problems that may occur.</li> </ul>
Learning Breakdown	Learning Breakdown	Learning breakdown	Learning Breakdown	Learning Breakdown	Learning Breakdown
	<p><b>Skills: Structures and model making: Tudor houses.</b></p> <p><b>Tools:</b> thick card, light weight card, cardboard, scissors, tape, glue, tape measures, paint.</p> <p>To know that shapes and structures with wide, flat bases or legs are the most stable.</p> <p>To understand that the shape of a structure affects its strength.</p>		<p><b>Skills: Textiles – making a peg doll</b></p> <p><b>Tools:</b> wooden pegs, fabrics, thread, pipe cleaner, needle, thread, wool, glue gun, paint, templates</p> <p>To know that textiles are materials including fabric and thread,</p> <p>To know that different textiles have different properties and are suited to different used.</p>		<p><b>Skills: Food technology – healthy dips. Structures – lighthouse model</b></p> <p><b>Tools:</b> chopping board, knife, blender, spoons, thick card, cardboard tubes, yoghurt pots, scissors, tape, glue, paint</p> <p><b>Food</b></p> <p>To know that there are different food types.</p> <p>To know how to safely chop vegetables using a taught grip.</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 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 templates can be used to cut out correctly shaped pieces of fabric accurately.</p> <p>To know that there are different techniques which can be used for joining textiles.</p> <p>To know that a selection of haberdashery items can be used to add detail to textile works.</p>	<p>To know that food can be blended together.</p> <p><b>Model Making</b> To know that different materials have different properties and are therefore suitable for different uses.</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>
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Subject: Design and Technology						Year group: 3					
Autumn			Spring			Summer					
1	2		1	2		1	2				
Overview	Overview		Overview	Overview		Overview	Overview				
	By the end of the unit, pupils will have designed, baked and decorated the gingerbread house, taking into account design features such as load-bearing walls. Pupils will also have to use prior knowledge from their Maths, such as time, ratio, repeating patterns, weights and measures.			The main context for learning is our Science topic of Plants.  The pupils will experiment with different materials, to get used to weaving, before weaving with willow, to create structures to support our Plants topic.  By the end of the unit, the pupils will be confident in their weaving skills and will have created several pieces using different materials.		Children will use prior learning from the Gingerbread House unit to develop precise instructions, concentrating on the subtleties of wording.  By the end of the unit, the children will be able to design, plan, make and evaluate a smoothie and a sandwich.					
	<b>Key Vocab:</b> Gingerbread, royal icing, design, stability tests, weak spot			<b>Key Vocab:</b> Loom, warp, weft, pattern, weaving, fringe		<b>Key Vocab:</b> Climate, diet, imported, natural, ingredients, natural, processed, reared, recipe, seasonal, seasons, sugar					
	<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>I know that I can test the stability of a structure, using a stability test.</li> <li>I know that structures may have weak spots.</li> </ul>			<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>I know what a mood board is</li> <li>I know the process of tie-dyeing</li> </ul>		<b>Key Knowledge:</b> <ul style="list-style-type: none"> <li>To know that not all fruits and vegetables can be grown in the UK.</li> </ul>					

	<ul style="list-style-type: none"> <li>I understand the order to build architectural elements such as walls and roof.</li> </ul>		<ul style="list-style-type: none"> <li>I can secure the ties tightly</li> <li>I understand the similarities between tie-dyeing and wax resist</li> <li>I know the process of tie-dyeing</li> <li>I can secure the ties tightly</li> <li>I understand the similarities between tie-dyeing and wax resist</li> <li>I understand the terms 'warp' and 'weft'</li> </ul>	<ul style="list-style-type: none"> <li>To know that climate affects food growth.</li> <li>To know that vegetables and fruit grow in certain seasons.</li> <li>To know that cooking instructions are known as a 'recipe'.</li> <li>To know that imported food is food that has been brought into the country.</li> </ul>	
Learning Breakdown	Learning Breakdown	Learning Breakdown	Learning Breakdown	Learning Breakdown	Learning Breakdown
	<p><b>Food technology: Gingerbread House</b></p> <p>Pupils will look at existing gingerbread houses for design ideas.</p> <p>Pupils will design their houses, taking into account both the aesthetics and the structural features.</p> <p>Children to gather ingredients, weigh them out, use kitchen tools to mix and bake the gingerbread.</p> <p>Once cooked and cooled, the children will work in groups to decorate the gingerbread houses.</p> <p>Pupils to follow their instructions from their English lessons.</p> <p>Pupils to evaluate their houses and suggest improvements.</p>		<p><b>Textiles: Weaving</b></p> <p>Pupils to research woven materials. They will be provided with both online sources and physical examples to handle and explore.</p> <p>Pupils will use a variety of materials to weave. This includes paper, wool, fabric and willow.</p> <p>Pupils will learn how to follow instructions to weave with confidence and control.</p> <p>Pupils to evaluate their final products for their design and strength.</p>	<p><b>Food technology: Smoothies and Sandwiches</b></p> <p>Pupils to research existing products and taste test them to see what we like and don't like.</p> <p>Pupils to plan and make sandwiches and smoothies on a particular theme.</p> <p>Pupils to use a range of kitchen tools, including (appropriate) knives, peelers, chopping board, blender etc.</p> <p>Pupils to design and produce a menu to showcase the Year 3 concoctions.</p> <p>Pupils to be aware of food allergies, cross-contamination and food hygiene.</p>	

**Subject: Design and Technology      Year group: 4**

Autumn		Spring		Summer	
1	2	1	2	1	2
Overview	Overview	Overview	Overview	Overview	Overview
	This will build on knowledge from previous food technology lessons and from Year 3's science		This will build on Year 3 Science on forces.		Children will begin to develop stitching skills – understanding the principles of how clothes are made together by

	<p>topic 'Animals including humans' as it teaches children the food groups and how to have a balanced diet.</p> <p>This also links to Year 3 topic of designing a sandwich in which the children carried out research before designing a sandwich to meet the desired requirements.</p> <p>Pupils will design a pizza and loosely links to the 'Romans' unit of study in history.</p> <p>As a result of this unit, the children will have a greater understanding of how food is made and prepared.</p>		<p>Children will work independently to produce an accurate, functioning slingshot. They will design a product that is suitable for the project. Children will attempt to reduce air resistance by improving the design. They will then conduct a trial accurately and draw conclusions and improvements from the results.</p> <p>This links to the history topic on the Anglo-Saxons and Vikings and how they used slingshots in battle and raiding.</p> <p>As a result of this unit, children will understand the importance of material selection and design for overall success.</p>		<p>stitches and how stitching was a pastime in eras gone by.</p> <p>They will investigate stitching tools and techniques, colour and pattern.</p> <p>Children will use their knowledge to design and make a simple tablemat, using a series of different stitches which may include: cross-stitch, running stitch, back-stitch, hemming stitch and chain stitch.</p>
	<p><b>Key Vocab:</b> Research, texture, aesthetic, cross-contamination, processed, measure, diet, design criteria</p>		<p><b>Key Vocab:</b> Research, chassis, slingshot, trajectory, air resistance, mechanism, kinetic energy</p>		<p><b>Key Vocab:</b> Binca, cross-stitch, embroidery, running stitch, back-stitch, hemming stitch and chain stitch</p>
	<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>To know that the amount of an ingredient in a recipe is known as the 'quantity'.</li> <li>To know that it is important to use oven gloves when removing hot food from an oven.</li> <li>To know the following cooking techniques: sieving, creaming, rubbing method, cooling.</li> <li>To understand the importance of budgeting while planning ingredients for pizzas.</li> </ul>		<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>To understand that all moving things have kinetic energy.</li> <li>To understand that kinetic energy is the energy that something (object/person) has by being in motion.</li> <li>To know that air resistance is the level of drag on an object as it is forced through the air.</li> <li>To understand that the shape of a moving object will affect how it moves due to air resistance.</li> </ul>		<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>To know some of the different types of materials used to embroider.</li> <li>To know the importance of planning when stitching and how to cast on/cast off/knot to prevent the thread from leaving the material.</li> <li>To be able to describe the suitability of different stitches for different purposes.</li> </ul>
Learning Breakdown	Learning Breakdown	Learning Breakdown	Learning Breakdown	Learning Breakdown	Learning Breakdown
	<p>To follow a baking recipe</p> <p>To make and test a prototype</p> <p>To design a pizza for a purpose, taking notice of budgets and balances.</p>		<p>To design a sturdy framework to hold the slingshot</p> <p>To build a sturdy framework to hold the slingshot based on the design</p>		<p>To learn the history of the purpose of sewing</p> <p>To investigate the skills of the Victorian people who used to cross-stitch as a pastime and recognise that</p>

To make a pizza that meets the design brief		To design a slingshot that can be transported on a chassis		this was typically attributed with household chores and girls' education.
		To build a slingshot from a design that fits on to a chassis		To investigate how to plan a cross-stitch
		To test the effectiveness of the design and how far the trajectory is		To develop control of sewing tools, needles, Binca and associated sewing techniques.
		To evaluate the effectiveness of the design and consider where improvements can be made		To evaluate the effectiveness of the design and consider where improvements can be made

Subject: Design and Technology						Year group: 5					
Autumn			Spring			Summer					
1	2		1	2		1	2				
Overview	Overview		Overview	Overview		Overview	Overview				
	<p><b>Food: What Could be Healthier?</b></p> <p>This unit will link to learning in RHE, to ensure pupils can prepare and cook tasty, healthy meals. Pupils will learn where different food comes from and which foods they should eat more/less of to be healthy. They will adapt recipes to make them healthier and they will create their own food product by perfecting a recipe and designing packaging.</p>			<p><b>TeenTech: Building Design Project</b></p> <p>During this unit, pupils will learn about a range of careers in STEM by joining virtual workshops with industry ambassadors. They will discuss the design of a range of buildings around the world and they will consider local and global issues that architects and engineers will need to be aware of when designing buildings for the future. Pupils will progress to designing their own residential or public building which addresses some of these issues. They will then create their building using wood and, if able, recycled materials and evaluate both their design and their final product.</p> <p>This unit of study will support learning in both RHE and Science, through studying the effects of human activity on the environment. Pupils will debate and address some of the issues of today and the future in the conservation of resources around the world.</p>		<p><b>Mechanical Systems: Pop-up Book</b></p> <p>During this unit of study, pupils will make links to the text they will read as part of English lessons by making a pop-up version of the book Varjak Paw.</p> <p>Children will design a pop-up book, then they will follow their design brief, making adaptations as necessary, to create their book. They will use layers and spacers to cover the workings of mechanisms, and finally, they will create high quality illustrations suitable for the target user.</p>					
	<p><b>Key Vocab:</b> Beef, cross-contamination, farm, method, packaging, research, welfare</p>			<p><b>Key Vocab:</b> Bridges Modern, historic, bridge, arch bridge, suspension</p>		<p><b>Key Vocab:</b> Design, input, motion, mechanism, criteria, research, reinforce, model</p>					

			bridge, girder bridge, cantilever bridge, cable-stay		
	<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>• A balanced diet consists of measured amounts of different foods to keep us healthy.</li> <li>• The different food groups are dairy, fruits and vegetables, protein, carbohydrates, fats and sugars.</li> <li>• Eating the right amount of nutrients will help your body grow and develop.</li> <li>• It is important to avoid cross-contamination with preparing food.</li> <li>• In farming, it is important that the animals are cared for properly.</li> </ul>		<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>• To understand some different ways to reinforce structures.</li> <li>• To understand how triangles can be used to reinforce bridges.</li> <li>• To know that properties are words that describe the form and function of materials.</li> <li>• To understand why material selection is important based on their properties.</li> <li>• To understand the material (functional and aesthetic) properties of wood.</li> </ul>	<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>• To know that mechanisms control movement.</li> <li>• To understand that mechanisms can be used to change one kind of motion into another.</li> <li>• To understand how to use sliders, pivots and folds to create paper-based mechanisms.</li> <li>• To know that a design brief is a description of what I am going to design and make.</li> <li>• To know that designers often want to hide mechanisms to make a product more aesthetically pleasing.</li> </ul>	
	Learning Breakdown		Learning Breakdown	Learning Breakdown	
	<p><b>Food: What Could be Healthier?</b></p> <p>To understand where food comes from and to consider ethical positions associated with cattle farming.</p> <p>To compare the nutritional values and taste of pasta sauces.</p> <p>To adapt a traditional recipe by adding, removing and/or substituting ingredients.</p> <p>To create a food product by researching the market and writing/adapting a recipe to create the final product.</p>		<p><b>TeenTech: Building Design Project</b></p> <p>To comment on the design of old and modern building around the world, discussing how their design fits their purpose.</p> <p>To research existing and potential local and global issues of today and the future.</p> <p>To design and create a building specification for a 'building of tomorrow' that helps to address concerns.</p> <p>To use the design specification to create a 'building for tomorrow' using recycled materials.</p> <p>To evaluate the final product and the design process, analysing how</p>	<p><b>Mechanical Systems: Pop-up Book</b></p> <p>To design each page of the pop-up book, specifying the mechanisms that will be used to create movement.</p> <p>To follow a design brief to create a pop-up book, using a wide range of tools.</p> <p>To use a range of mechanisms/structures for movement in the book and to use spacers to hide relevant parts to ensure a high-quality finish.</p> <p>To select materials and use computer-aided design to create a strengthened design that appeals to</p>	

	To evaluate the final food product against their own design criteria and the views of others.		well the building design would help address current or future issues.	the end-user, and to evaluate the design and creation of the pop-up book.	
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Subject: Design and Technology				Year group: 6	
Autumn		Spring		Summer	
1	2	1	2	1	2
Overview		Overview		Overview	
	<p><b>Textstyles: Waistcoats</b> Using a combination of textiles skills such as attaching fastenings, appliqué and decorative stitches, children will design, assemble and decorate a waistcoat for a chosen purpose. Children will build on prior learning in previous year groups, where they will have learned simple stitches.</p>		<p><b>Structures: Playgrounds</b> Children will research existing playground equipment and their different forms, before designing and developing a range of apparatus to meet a list of specified design criteria. They will develop skills acquired in previous year groups, such as measuring accurately, drafting designs and evaluating their work for improvements.</p>		<p><b>Digital World: Navigating the World</b> Children will design and program a navigation tool to produce a multifunctional device for trekkers using CAD 3D modelling software. Pitch and explain the product to a guest panel. This unit will develop skills acquired in Computing, where the children will have used 3D modelling software, as well as previous learning in DT, where they will have designed a project with a specific purpose in mind and evaluated that project independently and with peers.</p>
	<p><b>Key Vocab:</b> Annotate, decorate, design-criteria, fabric, target customer, waistcoat, waterproof</p>		<p><b>Key Vocab:</b> Apparatus, design criteria, equipment, playground, landscape features, cladding</p>		<p><b>Key Vocab:</b> Smart, smartphone, equipment, navigation, cardinal compass, application (apps), pedometer, GPS tracker, design brief, design criteria, client, function, program, duplicate, replica, loop, variable, value, if statement, Boolean, corrode, mouldable, lightweight, sustainable design, environmentally friendly, biodegradable, recyclable</p>
	<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>To understand that it is important to design</li> </ul>		<p><b>Key Knowledge:</b></p> <ul style="list-style-type: none"> <li>To know that structures can be</li> </ul>		<p><b>Key Knowledge:</b></p>

	<p>clothing with the client/target customer in mind.</p> <ul style="list-style-type: none"> <li>To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric.</li> <li>To understand the importance of consistently sized stitches.</li> </ul>		<p>strengthened by manipulating materials and shapes.</p> <ul style="list-style-type: none"> <li>To understand what a 'footprint plan' is.</li> <li>To understand that in the real world, design can impact users in positive and negative ways.</li> <li>To know that a prototype is a cheap model to test a design idea.</li> </ul>		<ul style="list-style-type: none"> <li>To know that accelerometers can detect movement.</li> <li>To understand that sensors can be useful in products as they mean the product can function without human input.</li> <li>To know that designers write design briefs and develop design criteria to enable them to fulfil a client's request.</li> <li>To know that 'multifunctional' means an object or product has more than one function.</li> <li>To know that magnetometers are devices that measure the Earth's magnetic field to determine which direction you are facing.</li> </ul>
<b>Learning Breakdown</b>	<b>Learning Breakdown</b>	<b>Learning Breakdown</b>	<b>Learning Breakdown</b>	<b>Learning Breakdown</b>	
<p>To understand that it is important to design clothing with the client/recipient 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 mark and cut fabric accurately in accordance with a design.</p> <p>To understand the importance of consistently sized stitches.</p> <p>To learn different decorate stitches.</p> <p>To evaluate their project continually is it is created.</p>			<p>To design a structure, giving consideration to how that structure will be used.</p> <p>To consider effective and ineffective designs.</p> <p>To understand what a footprint plan is and the purpose of a prototype.</p> <p>To build a range of play apparatus structures drawing upon new and prior knowledge of structures.</p> <p>To measure, mark and cut wood creating a range of structures,</p> <p>To improve a design plan based on peer evaluation.</p>		<p>To write a design brief from information submitted by a client.</p> <p>To develop a product idea through annotated sketches.</p> <p>To consider materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo).</p> <p>To programme an N,E, S,W cardinal compass.</p> <p>To develop an awareness of sustainable design.</p> <p>To explain the key functions and features of their navigation tool to the client as part of a product concept pitch.</p>