



Design and Technology Skills Progression at Embsay C of E (VC) Primary School

The content of our Design and Technology Curriculum is taught predominantly by a specialist teacher from Year 1 to Year 6 with a few lessons by class teachers (shown on the DT Long Term Plan). Sewing has also been added into the Reception curriculum to help develop fine motor skills. The aims of our curriculum for Design and Technology are taken from the National Curriculum aims of Design, Make, Evaluate and Technical knowledge. The work in the EYFS also lays strong foundations for this. The Design and Technology Skills Progression document shows the knowledge and skills at each age phase including cooking and nutrition, sewing, structures and mechanisms (KS1 and KS2) and electrical and computing systems (KS2). Cooking and Nutrition are covered in every year group. Design and Technology at Embsay is inclusive and provides a creative challenge and opportunity for problem solving for all pupils to enjoy. Design and Technology specific vocabulary is being taught in lessons and shown on displays. There is a focus on pupils analysing and evaluating their own work, the work of their peers and that of artists, craftspeople and designers. It links to the assessment for Design and Technology at Embsay.

			Skills in Cooking and Nutrition			
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>I can draw and create a design for a fruit kebab.</p> <p>I can investigate different fruits to inform my design.</p> <p>I know that everyone should eat at least five portions of fruit and vegetables every day.</p>	<p>I can draw and create a design for a Beatrix Potter salad.</p> <p>I can investigate different fruits and vegetables to inform my design.</p> <p>I know that everyone should eat at least five portions of fruit and vegetables every day.</p>	<p>I know that food can be divided into different groups.</p> <p>I can name the different food groups and describe their purpose.</p> <p>I know that people have different preferences.</p> <p>I know that there are a variety of different sandwiches.</p>	<p>I can talk about what seasonal foods are.</p> <p>I know why certain foods are available all year round in Britain.</p> <p>I can use a variety of techniques to bake cakes safely and hygienically.</p>	<p>I can make a British savoury dish, an Anglo-Saxon inspired oatcake.</p> <p>I can follow a recipe and use my measuring skills.</p> <p>I can use my cooking skills to</p>	<p>I can design a savoury pizza with different healthy toppings.</p> <p>I can prepare and cook a savoury dish safely and hygienically including the use of a heat source.</p> <p>I can use a range of techniques, such as peeling, chopping, slicing,</p>

	<p>I can use a knife safely to cut and peel my fruit.</p> <p>I can make my fruit kebab.</p> <p>I can evaluate other people's and my own finished fruit kebab fairly and constructively.</p> <p>I can explain what I would do differently if I was to make my fruit kebab again.</p>	<p>I can use a knife safely to cut and peel my fruit and vegetables.</p> <p>I can make my Beatrix Potter salad and Chinese noodles.</p> <p>I can evaluate other people's and my own finished Beatrix Potter salad and Chinese noodles fairly and constructively.</p> <p>I can explain what I would do differently if I was to make my Beatrix Potter salad or Chinese noodles again.</p>	<p>I know that different combinations of ingredients affect the taste and texture of the product.</p> <p>I can design an environmentally friendly pack lunch including a healthy sandwich and flapjack.</p> <p>I can describe each step in the process of making my sandwich and healthy pack lunch.</p> <p>I know how to work safely and appropriately with food.</p> <p>I can follow my design to create a sandwich and flapjack and I can present my sandwich in an appealing way.</p> <p>I can evaluate my work fairly and constructively.</p> <p>I can suggest improvements to my design and I can incorporate new design features based on my experience of the product.</p>	<p>I can follow a recipe using seasonal fruit or jam.</p> <p>I can understand that some seasonal fruits are suited to the climate and weather conditions in Britain.</p> <p>I can understand that fruit may be processed and/or preserved.</p> <p>I can explain why certain foods are available all year round in Britain.</p> <p>I know why vegetables form an important part of a healthy diet.</p> <p>I know when some British vegetables are in season.</p> <p>I can prepare a healthy meal using seasonal vegetables.</p>	<p>create a finished product.</p> <p>I can evaluate my finished product.</p>	<p>grating, mixing, spreading, kneading and cooking.</p> <p>I can measure food ingredients with increasing accuracy.</p> <p>I can assemble ingredients to make a recipe and apply a range of finishing techniques with increasing accuracy.</p> <p>I can evaluate the effectiveness of my pizza by tasting.</p> <p>I can talk about what I would change if I was to make my pizza again.</p>
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	<p>Key Vocabulary</p> <p>hygiene research fruit kebab design fruits vegetables knife safety chopping taste evaluate</p>	<p>Key Vocabulary</p> <p>hygiene research salad design fruits vegetables knife safety chopping noodles cooking taste evaluate</p>	<p>Key Vocabulary</p> <p>hygiene research food groups healthy sandwich design recipe ingredients flapjack environmentally friendly pack lunch healthy choices make knife safety chopping taste evaluate</p>	<p>Key Vocabulary</p> <p>hygiene British ingredients seasonality recipe sweet savoury ingredients measure combine mix rubbing in beat crumble knife safety chopping decorate evaluate</p>	<p>Key Vocabulary</p> <p>hygiene Anglo-Saxon Oatcake ingredients measure combine mix rubbing in cook taste evaluate</p>	<p>Key Vocabulary</p> <p>hygiene Pizza design flavours texture ingredients measure dough knead knife safety chopping make cook taste evaluate</p>
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	Skills in Sewing					
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>I can draw and create a design for a felt sunflower.</p> <p>I can learn how to sew, thread a needle, create simple stitches and sew on beads.</p> <p>I can decorate in a creative way.</p> <p>I can evaluate other people's and my own finished sunflower fairly and constructively.</p>	<p>I can draw and create a design for a felt woodland creature.</p> <p>I can follow a design to create a woodland creature using my developing sewing skills.</p> <p>I can decorate in a creative way.</p> <p>I can sew using blanket stitch and stuff my woodland toy.</p> <p>I can evaluate other people's and my own finished creature fairly and constructively.</p> <p>I can explain what I would do differently if I was to make my creature again.</p>	<p>I can draw and create a design for a felt African animal puppet.</p> <p>I can follow a design to create a puppet using my developing sewing skills.</p> <p>I can thread my needle and sew running stitch, with evenly spaced stitches to join fabric.</p> <p>I can understand the importance of tying a knot after sewing the final stitch.</p> <p>I can sew my African animal puppet and decorate.</p> <p>I can add features I choose when sewing and decorating my puppet.</p> <p>I can evaluate my finished African puppet.</p> <p>I can evaluate other people's and my own</p>		<p>I can research and design a purse in the style of a Roman purse.</p> <p>I can learn about the work of artists from different times and cultures.</p> <p>I can work well with fabrics and a variety of tools and techniques to make a purse.</p> <p>I can thread needles with increasing confidence.</p> <p>I can tie a knot after sewing with greater independence.</p> <p>I can sew blanket stitch neatly to join fabric.</p> <p>I can understand the significance of mosaics in Roman Art.</p> <p>I can generate a repeating mosaic style design of coloured squares on a grid.</p>	<p>Starry night textiles (art and design progression)</p>	

		<p>finished puppet fairly and constructively.</p> <p>I can explain what I would do differently if I was to make my puppet again.</p>		<p>I can create a neat repeating border design with good applique technique.</p> <p>I can make informed choices on colour and design based on prior knowledge and experience.</p> <p>I can evaluate my finished products and the work of others.</p>		
<p>Key Vocabulary fabric thread needle stitch bead</p>	<p>Key Vocabulary design fabric thread needle sew blanket stitch stuffing decorate evaluate</p>	<p>Key Vocabulary design puppet fabric thread needle sew running stitch decorate evaluate</p>		<p>Key Vocabulary research money containers Roman design fabric thread needle sew blanket stitch seam decorate mosaics repeating border evaluate</p>		

	Skills in Structures					
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>I can recognise different types of homes and their features.</p> <p>I can identify and name shapes within houses.</p> <p>I can design a house for a particular person or purpose.</p> <p>I can apply what I have learnt about designing a house.</p> <p>I can make decisions about what materials to use for a particular purpose.</p> <p>I can select and use a variety of techniques for joining materials together successfully.</p> <p>I can think of ways to improve my structures or make them stronger.</p> <p>I can follow my design to create a house.</p> <p>I can choose appropriate materials, tools and</p>		<p>I can identify the different components and features of architecture and buildings.</p> <p>I can design a building for a particular purpose.</p> <p>I can follow a design to create a creative structure.</p> <p>I can create a strong and stable product.</p> <p>I can evaluate other children's and my own finished product fairly and constructively.</p> <p>I can suggest ways in which I could improve my finished product.</p>		<p>I can use technical vocabulary to explain how beam bridges are constructed.</p> <p>I can understand the impact better bridge design has had on daily life.</p> <p>I can use technical vocabulary to explain how truss bridges spread the load of objects travelling across them.</p> <p>I can apply knowledge of how to stiffen and strengthen structures.</p> <p>I can use technical vocabulary to explain how arch bridges are constructed.</p> <p>I can use technical vocabulary to explain how arch bridges work.</p> <p>I can explain how tension and compression forces are</p>	<p>I can research and design a wooden stage.</p> <p>I can formulate step-by-step plans as a guide to making, producing a list of required tools, equipment and materials.</p> <p>I can measure mark out, cut and shape sheet materials and components with increasing accuracy.</p> <p>I can apply a range of finishing techniques.</p> <p>I can use technical vocabulary correctly and with increasing regularity to describe methods of strengthening and joining different sheet materials.</p> <p>I know how to make strong, stiff shell structures and how to reinforce and strengthen a 3D framework.</p>

	<p>techniques to create a model house.</p> <p>I can use finishing techniques to improve the overall quality of my product.</p> <p>I can say what I think and feel about my finished Tudor house.</p> <p>I can evaluate the work of others and give my opinion in a constructive way.</p> <p>I can suggest ways in which I could improve my product if I was to make it again.</p>				<p>distributed by suspension bridges.</p> <p>I can build different bridge models that will support a given weight.</p> <p>I can evaluate my model against my design criteria.</p>	<p>I can evaluate my wooden stage for quality of design, effectiveness of materials used, method of manufacture and fitness for purpose.</p>
	<p>Key Vocabulary</p> <p>research Tudor homes design shapes and feature template make materials stable structure construct decorate evaluate</p>		<p>Key Vocabulary</p> <p>research design cut, fold, join, fix cuboid, cube, cylinder freestanding structure stable decorate evaluate</p>		<p>Key Vocabulary</p> <p>research prototype bridges beams pillars trusses deck arch design make strengthen stable structure evaluate</p>	<p>Key Vocabulary</p> <p>research prototype stage design mark join reinforce triangulation stable frame structure evaluate</p>

	Skills in Mechanisms					
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>I can understand that levers and sliding mechanism create movement.</p> <p>I can make a vertical slider, a horizontal slider and a lever mechanism.</p> <p>I can create a design to make a moving superhero picture.</p> <p>I can colour in a creative way.</p> <p>I can evaluate my own and other people's finished products fairly and constructively.</p> <p>I can explain what I would do differently if I was to make my product again.</p>	<p>I can identify a variety of different types of vehicles and the main features and uses for a variety of vehicles.</p> <p>I know what wheels, axles and chassis are.</p> <p>I can experiment with a range of materials and techniques to combine wheels, axles and chassis.</p> <p>I can design a snow mobile to include wheels, axles, chassis and bodies.</p> <p>I can describe what materials and tools I will need to make my vehicle.</p> <p>I can discuss my designs and say what I think and feel about them.</p>	<p>I can recognise products that contain lever and linkage systems.</p> <p>I can explain why a particular mechanism has been used for a particular purpose.</p> <p>I can use technical vocabulary to describe lever and linkage systems.</p> <p>I can cut and shape materials with some precision to make their mechanisms work.</p> <p>I can join and combine materials and components in a variety of ways.</p> <p>I can mark out and measure accurately.</p> <p>I can create a design for a particular purpose (Embsay Moving Train).</p> <p>I can choose suitable mechanisms to create</p>		<p>I can use technical vocabulary to explain how pulleys and gears create movement.</p> <p>I can understand that mechanical and electrical systems have an input, process and an output.</p> <p>I can understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.</p> <p>I can develop criteria to design a shelter for a particular purpose and make.</p> <p>I can accurately measure, mark out, cut and shape materials and components.</p> <p>I can accurately assemble, join and combine materials and components.</p>	

		<p>I can identify ways in which I could improve my products and amend accordingly.</p> <p>I can evaluate a finished product by identifying what I did well.</p>	<p>moving parts in my picture.</p> <p>I can follow a design to create a picture.</p> <p>I can create four moving mechanisms that work well.</p> <p>I can create a picture that is neat, accurate and creative.</p> <p>I can evaluate other people's finished products and my own fairly and constructively.</p> <p>I can explain what I would do differently if I was to make my product again.</p>		<p>I can build a shelter that works with pulleys and gears.</p> <p>I can evaluate my product against my design criteria.</p>	
	<p>Key Vocabulary</p> <p>slider lever flap moving picture design colour evaluate</p>	<p>Key Vocabulary</p> <p>mechanism moving vehicle wheels axle chassis body features decorate evaluate</p>	<p>Key Vocabulary</p> <p>mechanism research design levers and linkage information flap circular mechanism pivot rotate moving train picture colour background evaluate</p>		<p>Key Vocabulary</p> <p>pulley gear drive belt rotation circuit mechanical system driver follower motor make evaluate</p>	

			Skills in Electrical/Computing			
Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					<p>I can use technical vocabulary correctly and with increasing regularity to describe different mechanisms and electrical circuits.</p> <p>I can understand that mechanical and electrical systems have an input, process and output.</p> <p>I can understand how simple electrical circuits and components can be used to create functional products.</p> <p>I can develop a design specification for a functional product. (Fairground Carousel to include series of sparkles.)</p> <p>I know how to program a computer to control my product.</p>	<p>I can use technical vocabulary correctly and with increasing regularity to describe different mechanisms and electrical circuits/systems.</p> <p>I can understand that mechanical and electrical systems have an input, process and output.</p> <p>I can understand how simple electrical components can be used to create functional products.</p> <p>I can develop a design specification for a functional product (Micro:bits)</p> <p>I know how to program a computer to control my product.</p> <p>I can create and modify a computer control program to enable my electrical</p>

					<p>I can create and modify a computer control program (crumble) to enable my electrical product to respond to changes.</p> <p>I can create a code and model for a Fairground Carousel to include sparkles and on off button.</p> <p>I can evaluate my model against my design criteria.</p>	<p>product to respond to changes.</p> <p>I can create using Micro:bits a code and model for the Beatles topic to include light and sound.</p> <p>I can evaluate my model against my design criteria.</p>
					<p>Key Vocabulary program microcontroller LED bulb switch system input process and output make evaluate</p>	<p>Key Vocabulary micro:bit programming input process and output light and sound control make evaluate</p>