

DESIGN TECHNOLOGY SKILLS PROGRESSION

	YEAR 1/2	YEAR 3/4	YEAR 5/6
DESIGN	<p>Develop purposeful products based on criteria</p> <p>Develop ideas through talking</p> <p>Model and communicate ideas through drawing and making models</p> <p>Begin to use technology to communicate ideas</p>	<p>Use research to develop designs</p> <p>Develop innovative, functional and appealing products that are design for a particular purpose</p> <p>Generate, develop and communicate ideas through discussion with others</p> <p>Use annotated sketches, prototypes, pattern pieces and technology to generate, develop and communicate ideas.</p>	<p>Use research and develop criteria to inform design</p> <p>Develop innovative, functional and appealing products that are aimed at particular individuals or groups</p> <p>Generate, develop, and communicate ideas through discussion, actively seeking the views of others.</p> <p>Use annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and technology to generate, develop, model and communicate ideas.</p>

MAKE

<p>MAKE</p>	<p>Fold, tear and cut paper and card.</p> <p>Mark out materials to be cut using a template.</p> <p>Cut along lines, straight and curved</p> <p>Curl paper</p> <p>Use a hole punch.</p> <p>Insert paper fasteners for card linkages.</p> <p>Create hinges.</p> <p>Use simple pop ups.</p> <p>Investigate temporary joining - fixed and moving</p> <p>Join appropriately for different materials and situations e.g. glue, tape etc.</p> <p>Explore and use a wide range of different materials according to their characteristics</p> <p>Explore different ways of finishing their product</p>	<p>Cut slots.</p> <p>Cut internal shapes.</p> <p>Use lolly sticks/card to make levers and linkages.</p> <p>Use linkages and sliders to make movements larger or more varied.</p> <p>Use and explore complex pop ups.</p> <p>Create nets to support the design process.</p> <p>Explore and evaluate different ways of joining materials</p> <p>Explore different finishes for their product using a range of materials</p>	<p>Cut slots.</p> <p>Cut accurately and safely to a marked line.</p> <p>Join and combine materials with temporary, fixed or moving joining's.</p> <p>Use craft knife, cutting mat and safety ruler under supervision if appropriate.</p> <p>Use a glue gun with close supervision.</p> <p>Use nets and models to build prototypes</p> <p>Select from a wide range of materials based on functional and aesthetic properties</p> <p>Explore and use different finishes taking into account the aesthetics of their product</p>
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EVALUATE	<p>Explore and evaluate a range of existing products</p> <p>Discuss ideas and products with others</p> <p>Evaluate ideas and products against design criteria</p>	<p>Investigate and evaluate a range of existing products</p> <p>Evaluate their ideas and products against design criteria and seek the views of others to improve their work</p> <p>Understand how key events and individuals in design technology have helped to shape the world</p>	<p>Investigate and analyse a range of existing products based on functional and aesthetic qualities</p> <p>Evaluate their ideas and products against their own design criteria</p> <p>Actively seek and consider the views of others to improve their work</p> <p>Understand how key events and individuals in design technology have helped to shape the world.</p>
TECHNICAL KNOWLEDGE	<p>Make vehicles with construction kits which contain free running wheels.</p> <p>Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels.</p> <p>Explore and use sliders and levers in their products</p> <p>Build simple structures</p> <p>Explore ways of making their structure stronger and more stable</p>	<p>Incorporate a circuit with a bulb or buzzer into a model.</p> <p>Use mechanical systems in their products (e.g. levers and linkages)</p> <p>Create shell or frame structures - strengthen frame s with diagonal struts.</p> <p>Make structures more stable by giving them a wide base.</p> <p>Prototype frame and shell structures.</p>	<p>Incorporate motor and a switch into a model.</p> <p>Control and monitor a product using a computer.</p> <p>Understand and use mechanical systems in their products (e.g. gears, pulleys and cams)</p> <p>Apply their understanding of how to reinforce and strengthen increasingly complex structures using a range of materials.</p>

THE FOLLOWING TWO SECTIONS, *FOOD COOKERY*, AND *HORTICULTURE* ARE NOT PART OF DESIGN AND TECHNOLOGY IN THE PRIMARY NATIONAL CURRICULUM. THEY'RE INCLUDED HERE BECAUSE THEY SHOULD BE!!!

<p>FOOD AND COOKERY</p>	<p>Develop a food vocabulary using taste, smell, texture and feel.</p> <p>Group familiar food products e.g. fruit and vegetables.</p> <p>Cut, peel, grate and chop a range of ingredients.</p> <p>Work safely and hygienically.</p> <p>Understand the need for a variety of foods in a diet .</p> <p>Measure and weigh food items using non statutory measures e.g. spoons, cups.</p>	<p>Develop sensory vocabulary/knowledge using, smell, taste, texture and feel.</p> <p>Analyse the taste, texture, smell and appearance of a range of foods.</p> <p>Follow instructions.</p> <p>Make healthy eating choices from an understanding of a balanced diet</p> <p>Join and combine a range of ingredients.</p> <p>Work safely and hygienically.</p> <p>Measure and weigh ingredients appropriately.</p>	<p>Analyse food products taking into account the properties of ingredients and sensory characteristics.</p> <p>Select and prepare foods for a particular purpose</p> <p>Taste a range of ingredients, food items to develop a sensory food vocabulary for use when designing.</p> <p>Weigh and measure using scales</p> <p>Cut and shape ingredients using appropriate tools and equipment e.g. grating</p> <p>Join and combine food ingredients appropriately e.g. beating, rubbing in.</p> <p>Decorate appropriately.</p> <p>Work safely and hygienically.</p> <p>Show awareness of a healthy diet from an understanding of a balanced diet .</p>
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HORTICULTURE

	<p>Understanding: Explore the outdoor environment. Name and identify things that we might see growing in a garden.</p> <p>Gain an understanding of what plants and vegetables need to grow effectively – explore what will happen if elements are missing.</p> <p>Planting skills: Plant seeds and bulbs in pots and planters and observe the changes over time.</p> <p>Write labels for plants and vegetables in order to identify them.</p> <p>Begin to understand that we can separate our fruit and vegetable waste from normal everyday waste.</p> <p>Tool Skills Select and use tools safely – with adult guidance when appropriate. Use a trowel, spade or dibber to dig and or to make planting holes. Use a hand fork to effectively remove weeds etc. Use a rake to level soil and clear leaves etc.</p> <p>Care skills: Use a watering can to water plants when it's necessary to do so.</p>	<p>Understanding: Explore the outdoor environment. Name and identify familiar plants and vegetables once grown.</p> <p>Know what plants need to grow, name parts of a plant.</p> <p>Planting skills: Plant seeds and bulbs into the soil and firm in.</p> <p>Sow seeds into a planter with guidance.</p> <p>Take care of what we are growing.</p> <p>Begin to understand that we can recycle our plant and veg waste.</p> <p>Tool Skills Select tools for a specific purpose and use them safely.</p>	<p>Understanding: Begin to understand that plants and vegetables need diverse climates and conditions to grow in – e.g we grow tomatoes in a greenhouse</p> <p>Develop an understanding of the lifecycle of a plant.</p> <p>Planting skills: Know that we plant things for a purpose and to try the products that we have grown.</p> <p>Care and protect what we are growing using various techniques e.g watering, covering</p> <p>To know and understand about decay e.g composting.</p> <p>Harvest what we have grown e.g digging root crops such as potatoes and carrots without damaging them and pick peas and beans.</p> <p>Tool Skills Use various tools safely and without support to dig, plant and remove weeds etc.</p> <p>Use secateurs to prune – with supervision where necessary.</p>
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