



*Forever Learning: Limitless potential for every child*

Design and Technology Progression of Skills Document

Subject: Design and Technology Progression of knowledge			Leader: Ceri Hams	
	Foundation Stage		Key Stage 1	
Area/Aspect /Element	Nursery	Reception	Year 1	Year 2
<b>Mechanism s- Sliders and Levers</b>	<ul style="list-style-type: none"> <li>• Early experiences of working with paper and card to make simple flaps and hinges.</li> <li>• Experience of simple cutting, shaping and joining skills using scissors, glue, paper fasteners and masking tape.</li> </ul>	<ul style="list-style-type: none"> <li>• Early experiences of working with paper and card to make simple flaps and hinges.</li> <li>• Experience of simple cutting, shaping and joining skills using scissors, glue, paper fasteners and masking tape.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore and use sliders and levers.</li> <li>• Understand that different mechanisms produce different types of movement.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore and use sliders and levers.</li> <li>• Understand that different mechanisms produce different types of movement.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>
<b>Mechanism s- Wheels and Axles</b>	<ul style="list-style-type: none"> <li>• Assembled vehicles with moving wheels using construction kits.</li> <li>• Explored moving vehicles through play.</li> <li>• Gained some experience of designing, making and evaluating products for a specified user and purpose.</li> <li>• Developed some cutting,</li> </ul>	<ul style="list-style-type: none"> <li>• Assembled vehicles with moving wheels using construction kits.</li> <li>• Explored moving vehicles through play.</li> <li>• Gained some experience of designing, making and evaluating products for a specified user and purpose.</li> <li>• Developed some cutting, joining and finishing skills with card.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore and use wheels, axles and axle holders.</li> <li>• Distinguish between fixed and freely moving axles.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Explore and use wheels, axles and axle holders.</li> <li>• Distinguish between fixed and freely moving axles.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>

	joining and finishing skills with card.			
<b>Structures-Freestanding Structures</b>	<ul style="list-style-type: none"> <li>• Experience of using construction kits to build walls, towers and frameworks.</li> <li>• Experience of using basic tools e.g. scissors or hole punches with construction materials e.g. plastic, card.</li> <li>• Experience of different methods of joining card and paper.</li> </ul>	<ul style="list-style-type: none"> <li>• Experience of using construction kits to build walls, towers and frameworks.</li> <li>• Experience of using basic tools e.g. scissors or hole punches with construction materials e.g. plastic, card.</li> <li>• Experience of different methods of joining card and paper.</li> </ul>	<ul style="list-style-type: none"> <li>• Know how to make freestanding structures stronger, stiffer and more stable.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Know how to make freestanding structures stronger, stiffer and more stable.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>
<b>Structures-Shell structures</b>	<ul style="list-style-type: none"> <li>• Experience of using different joining, cutting and finishing techniques with paper and card.</li> <li>• A basic understanding of 2-D and 3-D shapes in mathematics and the physical properties and everyday uses of materials in science.</li> </ul>	<ul style="list-style-type: none"> <li>• Experience of using different joining, cutting and finishing techniques with paper and card.</li> <li>• A basic understanding of 2-D and 3-D shapes in mathematics and the physical properties and everyday uses of materials in science.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and use knowledge of how to construct strong, stiff shell structures.</li> <li>• Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and use knowledge of how to construct strong, stiff shell structures.</li> <li>• Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>
<b>Food</b>	<ul style="list-style-type: none"> <li>• Experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell.</li> <li>• Experience of cutting soft fruit and vegetables using appropriate utensils.</li> </ul>	<ul style="list-style-type: none"> <li>• Experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell.</li> <li>• Experience of cutting soft fruit and vegetables using appropriate utensils.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.</li> <li>• Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of <i>The eatwell plate</i>.</li> <li>• Know and use technical and sensory vocabulary relevant to the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.</li> <li>• Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of <i>The eatwell plate</i>.</li> <li>• Know and use technical and sensory vocabulary relevant to the project.</li> </ul>
<b>Textiles</b>	• Explored and used different	• Explored and used different	• Understand how simple 3-D	• Understand how simple 3-D

	fabrics. <ul style="list-style-type: none"> <li>• Cut and join fabrics with simple techniques.</li> <li>• Thought about the user and purpose of products.</li> </ul>	fabrics. <ul style="list-style-type: none"> <li>• Cut and join fabrics with simple techniques.</li> <li>• Thought about the user and purpose of products.</li> </ul>	textile products are made, using a template to create two identical shapes. <ul style="list-style-type: none"> <li>• Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling.</li> <li>• Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>	textile products are made, using a template to create two identical shapes. <ul style="list-style-type: none"> <li>• Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling.</li> <li>• Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>
<b>Subject: Design and Technology Progression by objectives</b>			<b>Leader: Ceri Hams</b>	
	<b>Foundation Stage</b>		<b>Key Stage 1</b>	
<b>Area/Aspect /Element</b>	<b>Nursery</b>	<b>Reception</b>	<b>Year 1</b>	<b>Year 2</b>
<b>Designing</b>	EAD Enjoys and responds to playing with colour in a variety of ways, for example combining colours  PD Shows increasing control in holding, using and manipulating a range of tools and objects such as hammers and mark making tools  Holds mark-making tools with thumb and all fingers  UTW Interested in finding out how things work.	EAD Continues to explore colour and how colours can be changed  Creates sounds, movements, drawings to accompany stories  Develops their own ideas through experimentation with diverse materials, e.g. light, projected image, loose parts, watercolours, powder paint, to express and communicate their discoveries and understanding.  PD Handles tools, objects, construction and malleable	Mechanisms <ul style="list-style-type: none"> <li>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make.</li> <li>• Develop, model and communicate their ideas through drawings and mock-ups with card and paper.</li> </ul> Structures <ul style="list-style-type: none"> <li>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make.</li> <li>• Develop, model and communicate their ideas through talking, mock-ups and drawings.</li> </ul>	Mechanisms <ul style="list-style-type: none"> <li>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make.</li> <li>• Develop, model and communicate their ideas through drawings and mock-ups with card and paper.</li> </ul> Structures <ul style="list-style-type: none"> <li>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make.</li> <li>• Develop, model and communicate their ideas through talking, mock-ups and drawings.</li> </ul>

	<p>L Sometimes gives meaning to their drawings and paintings</p>	<p>materials safely and with increasing control and intention</p> <p>PSED Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary; - Offer explanations for why things might happen</p> <p>UTW Comments and asks questions about aspects of their familiar world</p>	<ul style="list-style-type: none"> <li>• Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product.</li> <li>• Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas</li> </ul> <p>Food</p> <ul style="list-style-type: none"> <li>• Design appealing products for a particular user based on simple design criteria.</li> <li>• Generate initial ideas and design criteria through investigating a variety of fruit and vegetables.</li> <li>• Communicate these ideas through talk and drawings.</li> </ul> <p>Textiles</p> <ul style="list-style-type: none"> <li>• Design a functional and appealing product for a chosen user and purpose based on simple design criteria.</li> <li>• Generate, develop, model and communicate their ideas as appropriate through talking, drawing, templates, mock-ups and information and communication technology.</li> </ul>	<ul style="list-style-type: none"> <li>• Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product.</li> <li>• Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas</li> </ul> <p>Food</p> <ul style="list-style-type: none"> <li>• Design appealing products for a particular user based on simple design criteria.</li> <li>• Generate initial ideas and design criteria through investigating a variety of fruit and vegetables.</li> <li>• Communicate these ideas through talk and drawings.</li> </ul> <p>Textiles</p> <ul style="list-style-type: none"> <li>• Design a functional and appealing product for a chosen user and purpose based on simple design criteria.</li> <li>• Generate, develop, model and communicate their ideas as appropriate through talking, drawing, templates, mock-ups and information and communication technology.</li> </ul>
<p><b>Making</b></p>	<p>EAD Uses everyday materials to explore, understand and represent their world – their ideas, interests and fascinations</p> <p>Experiments with ways to enclose a space, create shapes</p>	<p>EAD Uses tools for a purpose</p> <p>Uses available resources to create props or creates imaginary ones to support play</p>	<p>Mechanisms</p> <ul style="list-style-type: none"> <li>• Plan by suggesting what to do next.</li> <li>• Select and use tools, explaining their choices, to cut, shape and join paper and card.</li> <li>• Use simple finishing techniques suitable for the product they are</li> </ul>	<p>Mechanisms</p> <ul style="list-style-type: none"> <li>• Plan by suggesting what to do next.</li> <li>• Select and use tools, explaining their choices, to cut, shape and join paper and card.</li> <li>• Use simple finishing techniques suitable for the product they are</li> </ul>

	<p>and represent actions, sounds and objects</p> <p>PD Manipulates a range of tools and equipment in one hand, tools include paintbrushes, scissors, hairbrushes, toothbrush, scarves or ribbons</p> <p>Creates lines and circles pivoting from the shoulder and elbow</p> <p>Begins to use anticlockwise movement and retrace vertical lines</p>	<p>Uses combinations of art forms, e.g. making, drawing, constructing and mapping</p> <p>PD Use a range of small tools, including scissors, paint brushes and cutlery; - Begin to show accuracy and care when drawing.</p>	<p>creating.</p> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing.</li> <li>• Select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics.</li> </ul> <p>Structures</p> <ul style="list-style-type: none"> <li>• Plan by suggesting what to do next.</li> <li>• Select and use tools, skills and techniques, explaining their choices.</li> <li>• Select new and reclaimed materials and construction kits to build their structures.</li> <li>• Use simple finishing techniques suitable for the structure they are creating.</li> <li>• Order the main stages of making.</li> <li>• Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy.</li> <li>• Explain their choice of materials according to functional properties and aesthetic qualities.</li> <li>• Use finishing techniques suitable for the product they are creating.</li> </ul> <p>Food</p> <ul style="list-style-type: none"> <li>• Use simple utensils and equipment to e.g. peel, cut, slice,</li> </ul>	<p>creating.</p> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing.</li> <li>• Select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics.</li> </ul> <p>Structures</p> <ul style="list-style-type: none"> <li>• Plan by suggesting what to do next.</li> <li>• Select and use tools, skills and techniques, explaining their choices.</li> <li>• Select new and reclaimed materials and construction kits to build their structures.</li> <li>• Use simple finishing techniques suitable for the structure they are creating.</li> <li>• Order the main stages of making.</li> <li>• Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy.</li> <li>• Explain their choice of materials according to functional properties and aesthetic qualities.</li> <li>• Use finishing techniques suitable for the product they are creating.</li> </ul> <p>Food</p> <ul style="list-style-type: none"> <li>• Use simple utensils and equipment to e.g. peel, cut, slice,</li> </ul>
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			<p>squeeze, grate and chop safely.</p> <ul style="list-style-type: none"> <li>• Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product.</li> </ul> <p>Textiles</p> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing.</li> <li>• Select from and use textiles according to their characteristics.</li> </ul>	<p>squeeze, grate and chop safely.</p> <ul style="list-style-type: none"> <li>• Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product.</li> </ul> <p>Textiles</p> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing.</li> <li>• Select from and use textiles according to their characteristics.</li> </ul>
<b>Evaluating</b>	<p>PSED Understands who, what, where in simple questions (e.g. Who's that? Who can? What's that? Where is?)</p> <p>Shows understanding of prepositions such as under, on top, behind by carrying out an action or selecting correct picture</p> <p>Builds up vocabulary that reflects the breadth of their experiences</p> <p>UTW Notices detailed features of objects in their environment</p> <p>Gives meaning to the marks they make as they draw, write, paint and type using a keyboard or touch-screen technology</p>	<p>EAD Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories</p> <p>PSED Listens and responds to ideas expressed by others in conversation or discussion</p> <p>Uses talk to organise, sequence and clarify thinking, ideas, feelings and events</p> <p>Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary; -</p>	<p>Mechanisms</p> <ul style="list-style-type: none"> <li>• Explore a range of existing books and everyday products that use simple sliders and levers.</li> <li>• Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.</li> <li>• Explore and evaluate a range of products with wheels and axles.</li> <li>• Evaluate their ideas throughout and their products against original criteria.</li> </ul> <p>Structures</p> <ul style="list-style-type: none"> <li>• Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings.</li> <li>• Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the</li> </ul>	<p>Mechanisms</p> <ul style="list-style-type: none"> <li>• Explore a range of existing books and everyday products that use simple sliders and levers.</li> <li>• Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.</li> <li>• Explore and evaluate a range of products with wheels and axles.</li> <li>• Evaluate their ideas throughout and their products against original criteria.</li> </ul> <p>Structures</p> <ul style="list-style-type: none"> <li>• Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings.</li> <li>• Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the</li> </ul>

		<p>Offer explanations for why things might happen</p> <p>Express their ideas and feelings about their experiences using full sentences</p> <p>UTW Interested in finding out how things work.</p> <p>Looks closely at similarities, differences</p>	<p>original design criteria.</p> <ul style="list-style-type: none"> <li>Investigate and evaluate a range of existing shell structures including the materials, components and techniques that have been used.</li> <li>Test and evaluate their own products against design criteria and the intended user and purpose.</li> </ul> <p>Food</p> <ul style="list-style-type: none"> <li>Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences.</li> <li>Evaluate ideas and finished products against design criteria, including intended user and purpose.</li> </ul> <p>Textiles</p> <ul style="list-style-type: none"> <li>Explore and evaluate a range of existing textile products relevant to the project being undertaken.</li> <li>Evaluate their ideas throughout and their final products against original design criteria.</li> </ul>	<p>original design criteria.</p> <ul style="list-style-type: none"> <li>Investigate and evaluate a range of existing shell structures including the materials, components and techniques that have been used.</li> <li>Test and evaluate their own products against design criteria and the intended user and purpose.</li> </ul> <p>Food</p> <ul style="list-style-type: none"> <li>Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences.</li> <li>Evaluate ideas and finished products against design criteria, including intended user and purpose.</li> </ul> <p>Textiles</p> <ul style="list-style-type: none"> <li>Explore and evaluate a range of existing textile products relevant to the project being undertaken.</li> <li>Evaluate their ideas throughout and their final products against original design criteria.</li> </ul>
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