


Design and Technology Progression of Skills and Knowledge

	Year 3	Year 4	Year 5	Year 6
Structures / Making			<p>To select appropriate tools and equipment for particular tasks.</p> <p>To use a structure for a particular purpose (e.g. moving toy, base for electric steady hand)</p> <p>To identify points of weakness and reinforce them as necessary.</p> <p>To apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p> <p>To evaluate the overall success of the structure for its purpose and improve it if necessary.</p>	
Food Technology	<p>To use cooking equipment safely.</p> <p>To consider hygiene when preparing food.</p> <p>To know that imported food will have travelled from far away and will have an impact on the environment.</p> <p>To know that in the U.K we often import food and why.</p> <p>To create a recipe that is delicious and healthy, using seasonal vegetables.</p> <p>To know what food are currently in season.</p> <p>To know that each fruit and vegetable gives us nutritional benefits.</p>	<p>To know how to cook food safely.</p> <p>To cook a recipe, adapting it to create a new biscuit prototype.</p> <p>To evaluate a product to consider, taste, smell, texture and appearance and target audience.</p> <p>To follow a simple recipe.</p> <p>To know how to cook food safely.</p> <p>To adapt a recipe to cook/bake.</p>	<p>To understand where food comes from (looking at seasonal foods in the UK)</p> <p>To understand what a healthy and balanced diet is</p> <p>To explore and research a range of different soups, evaluating the taste, flavour, texture.</p> <p>To know how to cook food safely including hygiene</p> <p>To design a healthy recipe</p> <p>To choose the correct equipment to cut and chop ingredients</p> <p>To follow a recipe to create a final product</p>	<p>To research different types of bread including its purpose and where the bread is from</p> <p>To design a bread for a particular purpose (shape, texture, ingredients)</p> <p>To know how to cook food safely including hygiene</p> <p>To understand the process for making bread</p> <p>To mix the ingredients, kneading, proving and baking the bread.</p> <p>To follow a simple recipe to make their own bread</p> <p>To evaluate their final product and baking skills.</p>

	<p>To design a filo tart using seasonal vegetables.</p> <p>To follow a simple recipe (with support)</p> <p>To evaluate final product and skills</p>		To evaluate final product and skills.	
Textiles	<p>To sew cross stitch.</p> <p>To learn applique technique.</p> <p>To reflect on techniques used.</p> <p>To design a cushions</p> <p>To use a paper template</p> <p>To cut fabric accurately</p> <p>To follow a design criteria</p> <p>To know how to applique.</p> <p>To use stiches to join fabrics.</p> <p>To leave space for a seam.</p> <p>To understand why some products are turned inside out after sewing.</p>	<p>To make a paper template.</p> <p>To cut neatly and accurately.</p> <p>To thread a needle.</p> <p>To use a blanket stitch to join two pieces of fabric.</p> <p>To create strong and secure stitches.</p> <p>To use applique to attach pieces of fabric decoration.</p> <p>To use stitches to decorate fabric.</p> <p>To evaluate the result.</p>		<p>Life skills: To sew a button onto a shirt.</p> <p>To sew up a hole on a piece of clothing</p>
Mechanisms	<p>To begin to use research and develop design criteria to inform the design of product.</p> <p>To create a moving monster with pneumatic moving parts.</p> <p>To generate, develop, model and communicate their ideas through discussion, and annotated sketches.</p> <p>To begin to select from and use a wider range of materials, components and materials.</p> <p>To evaluate (with support) their ideas and products against their own design criteria and consider the views of others to improve their work.</p>		<p>To generate, develop, model and communicate their ideas through discussion and prototypes.</p> <p>To select from and use a wider range of materials, components and materials according to their functional properties and aesthetics.</p> <p>To create a moving toy with cams.</p> <p>To investigate and analyse a range of existing products.</p> <p>To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	

	To understand and use mechanical systems in their products		To understand and use mechanical systems in their products (e.g. cams).	
Electricals			<p>To understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p> <p>To know that a battery contains stored electricity and can be used to power products.</p> <p>To factor in who the product is for in the design criteria.</p> <p>To design an electronic game which satisfies both the design and success criteria.</p> <p>To use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams.</p> <p>To make an electronic circuit.</p> <p>To use appropriate equipment to cut and attach materials.</p> <p>To test the game to evaluate its success.</p> <p>To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>To use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>To generate, develop, model and communicate their ideas through discussion, annotated sketches.</p> <p>To select from and use a wider range of tools and equipment to perform practical tasks.</p> <p>To select from and use a wider range of materials and components, according to their functional properties and aesthetic qualities.</p> <p>To investigate and analyse a range of existing products.</p> <p>To design a card with a working circuit.</p> <p>To label LEDs with positive and negative legs. To place the positive leg of the LED branches towards the positive side of the battery. To create the front cover for a greetings card. To map out where different components of the circuit will go.</p> <p>To make a circuit and integrate it into a greetings card.</p> <p>To understand breaks in a circuit stop it from working. To lay copper tape in straight lines and ensure corners are never broken.</p> <p>To evaluate their ideas and products against their own design</p>

				criteria and consider the views of others to improve their work. To understand and use electrical systems in their products.
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