

Grimsargh St Michael's CE Primary School

Design and Technology Progression

Areas of study	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Investigative and Evaluative Activities (IEAs)	Children use what they have learnt about media and materials in original ways, thinking about uses and purposes as set out in the Early Learning Goals.	<p>Explore existing products and investigate how they have been made.</p> <p>Decide how existing products do/do not achieve their purpose.</p> <p>Note changes made during the making process as annotation to plans/drawings.</p> <p>Talk about their design as they develop and identify good and bad points.</p>	<p>Explore existing products and investigate how they have been made.</p> <p>Talk about their design as they develop and identify good and bad points.</p> <p>Decide how existing products do/do not achieve their purpose.</p> <p>Note changes made during the making process as annotation to plans/drawings</p>	<p>Investigate similar products to the one to be made to give starting points for a design.</p> <p>Draw/sketch products to help analyse and understand how products are made.</p> <p>Identify the strengths and weaknesses of their design ideas in relation to purpose/user.</p>	<p>Investigate similar products to the one to be made to give starting points for a design.</p> <p>Draw/sketch products to help analyse and understand how products are made.</p> <p>Investigate key events and individuals in Design and Technology.</p> <p>Research needs of user.</p> <p>Identify the strengths and weaknesses of others' design ideas in relation to purpose/user.</p>	<p>Research and evaluate existing products.</p> <p>Consider UPAQ – User Purpose, Aesthetics, Quality.</p> <p>Identify the strengths and weaknesses of the design ideas.</p> <p>Consider and explain how the finished product could be improved related to design criteria.</p> <p>Discuss how well the finished product meets the need.</p>	<p>Research and evaluate existing products.</p> <p>Consider UPAQ – User Purpose, Aesthetics, Quality.</p> <p>Understand how key people have influenced design.</p> <p>Identify the strengths and weaknesses of others' design ideas.</p>
Focused Tasks (FTs)	<p>In food and nutrition, experience a range of cooking & baking activities and experience and develop an interest in how some fruits and vegetables grow.</p> <p>In textiles, develop the skills of drawing round a template, stitching by using a stencil with holes and laces.</p> <p>In structures, develop problem solving skills</p>	<p>Understand basic food hygiene practices when handling food.</p> <p>Practise food processing skills such as washing, grating, peeling, slicing, squeezing.</p> <p>Explain where food comes from.</p> <p>Understand healthy eating advice, using the eatwell plate and talk about the importance of fruit and</p>	<p>Use construction kits to make a product that moves.</p> <p>Build a chassis, using free or fixed axles and wheels to enable movement.</p> <p>Know different methods of holding axles.</p> <p>Join fabrics by using e.g. running stitch, glue and over sewing.</p>	<p>Join fabrics using running stitch, over sewing, blanket stitch.</p> <p>Prototype a product using J cloths, card or paper.</p> <p>Explore strengthening and stiffening of fabrics.</p> <p>Explore fastenings.</p> <p>Understand seam allowance.</p>	<p>Fault find in electrical systems with switches and bulbs.</p> <p>Make a variety of switches and test them in a simple circuit.</p> <p>Practise making nets from card, scoring, cutting and assembling.</p> <p>Work safely and hygienically.</p>	<p>Disassemble and reassemble a cam model.</p> <p>Use models to understand cam movement as a linear representation.</p> <p>Thread needles and join fabrics using a range of stitches.</p> <p>Make seams and join right sides together.</p>	<p>Use wire strippers, twist and tape electrical connections, screw connections.</p> <p>Understand how to avoid making a short circuit.</p> <p>Understand the benefits of recycling and how countries without facilities are developing creative ideas for reusing plastics.</p>

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	<p>when making models and skills using scissors to cut paper and card.</p> <p>In Mechanisms, explore a range of joining products e.g. tape, glue and use a range of construction kits to create models.</p>	<p>vegetable in a balanced diet.</p> <p>Replicate slider and lever examples.</p> <p>Fold paper or card in different ways to make freestanding structures.</p> <p>Use construction kits to build structures.</p> <p>Practise marking, measuring, cutting and joining techniques.</p>	<p>Understand how fabrics can be decorated with e.g. buttons, beads, sequins, braids, ribbons.</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>Explain where food comes from.</p> <p>Cut, peel, grate, chop, spread a range of ingredients.</p> <p>Understand the need for a variety of foods in a diet.</p>	<p>Develop vocabulary related to the project.</p> <p>Use mechanical systems such levers and linkages.</p> <p>Practise replicating a chosen mechanical system in card.</p>	<p>Know where and how ingredients are grown and processed.</p> <p>Weigh and measure using scales.</p>	<p>Make a paper prototype or a J-cloth mock up.</p> <p>Consider the properties of ingredients and sensory characteristics.</p> <p>Know where and how ingredients are grown and processed.</p> <p>Consider influence of chefs e.g. Jamie Oliver and school meals, Hugh Fearnley-Whittingstall and sustainable fishing</p>	
<p>Design, Make and Evaluate Assignments (DMEAs)</p>	<p>Represent their own ideas, thoughts and feelings.</p> <p>Talk about their ideas, choose resources, tools and techniques with a purpose in mind.</p> <p>Safely use a variety of materials and tools considering colour, texture, form and function.</p>	<p>Generate simple design criteria together.</p> <p>Develop ideas through talking, drawing and making mock-ups with construction kits and materials.</p> <p>Talk about their design as they develop and identify good and bad points.</p> <p>Talk about the order of work together, using</p>	<p>Identify a user and purpose</p> <p>Generate, develop and communicate their ideas as appropriate e.g. through talk and drawing.</p> <p>Generate a range of ideas.</p> <p>Discuss the stages in making before assembling quality products.</p>	<p>Create a design brief together, set within an authentic, meaningful context.</p> <p>Think about UPAQ – User, Purpose, Aesthetics and Quality.</p> <p>Use annotated design drawings to communicate ideas.</p> <p>Produce mock-ups and prototypes of products.</p>	<p>Develop a design brief together which is authentic and meaningful.</p> <p>Think about UPAQ – User, Purpose, Aesthetics and Quality.</p> <p>Understand the purpose of the battery powered products to be made.</p> <p>Generate a range of realistic ideas, given</p>	<p>Develop authentic and meaningful design briefs together.</p> <p>Generate innovative ideas by carrying out research.</p> <p>Develop a design specification for their product, carefully considering UPAQ.</p> <p>Communicate ideas through detailed, annotated drawings from different views</p>	<p>Develop authentic and meaningful design briefs together.</p> <p>Generate innovative ideas by drawing on research.</p> <p>Develop a design specification for their product, carefully considering UPAQ.</p> <p>Communicate ideas through annotated sketches, pictorial representations of</p>

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	<p>Experiment and build with a range of construction resources.</p> <p>Make models using different materials and experiment with different ways to join and assemble.</p> <p>Talk about what they like/dislike about their models saying why and how they would change them.</p>	<p>simple language First... Next... Last...</p> <p>Evaluate developing ideas and final products against the original design.</p>	<p>Make their product using their design ideas and criteria as an ongoing guide. Add finishings to their product with reference to their design ideas and criteria.</p> <p>Consider utensils and food processes.</p> <p>Evaluate ongoing work and their finished product, communicating how it works and matches their design criteria, including any changes made.</p>	<p>Plan the main stages of making e.g. using a flowchart or storyboard.</p> <p>Assemble products using existing knowledge, skills and understanding.</p> <p>Evaluate as the process is undertaken and the final product in relation to the design brief and criteria.</p> <p>The product should be tested by the intended use and for its purpose.</p> <p>Identify possible improvements.</p>	<p>time and material constraints.</p> <p>Agree on design criteria that is used to guide the development and evaluation process, including criteria relating to healthy eating and a varied diet.</p> <p>Use annotated sketches.</p> <p>Create paper prototypes of ideas.</p> <p>Consider the main stages in making and testing before assembling high quality products.</p> <p>Evaluate throughout and the final products against the intended purpose and with the user, drawing on the design criteria agreed.</p>	<p>and/or exploded diagrams.</p> <p>Drawings should include the location of mechanical components, how they work as a system with an input, process and output and the appearance and finish of the product.</p> <p>Produce step-by-step plans and list of tools, equipment and materials needed.</p> <p>Make high quality products with accuracy, applying knowledge, understanding and skills.</p> <p>Model structural ideas first using paper etc.</p> <p>Use a range of decorative finishing techniques to ensure a well finished final product that matched the intended user and product.</p> <p>Evaluate through the process and the final product in use, comparing it the design spec.</p>	<p>electrical circuits and/or circuit diagrams.</p> <p>Drawings should indicate the design decisions made.</p> <p>Electrical design drawings should include the location of the electrical components.</p> <p>Produce detailed step-by-step plans and lists of tools, equipment and materials needed.</p> <p>Make high quality products, applying knowledge, understanding and skills.</p> <p>Critically evaluate the quality of the design, the manufacture, functionality, innovation shown and fitness for the intended user and purpose.</p> <p>Test the electrical system to demonstrate its effectiveness for the intended use and purpose.</p>
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