

DT Curriculum Map for Grange Junior School

	Term 1/2	Term 3/4	Term 5/6
Y3	<p style="text-align: center;">Structures (Shell)</p> <p>To design and make a cube/cuboid (net) box to hold an artefact</p> <p>Investigate a collection of different cube/cuboid shell structures including packaging</p> <p>Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product</p> <p>Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy</p> <p>Test and evaluate their own products against design criteria and the intended user and purpose</p>	<p style="text-align: center;">Textiles (2D to 3D)</p> <p>To design and make a fabric bag with an intended purpose</p> <p>Investigate a range of textile bags that have a selection of stitches, joins, fabrics, finishing techniques, fastenings and purposes</p> <p>Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s</p> <p>Select and use a range of appropriate tools with some accuracy e.g. cutting, joining and finishing</p> <p>Test their product against the original design criteria and with the intended user</p>	<p style="text-align: center;">Food (Healthy Eating)</p> <p>To design and make a healthy sandwich/wrap to eat at school</p> <p>Investigate a range of food products Linked to the principles of a varied and healthy diet using <i>The Eatwell Guide</i></p> <p>Use annotated sketches and appropriate information and communication technology, such as web-based recipes, to develop and communicate ideas</p> <p>Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics</p> <p>Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.</p>
Y4	<p style="text-align: center;">Structures (Shell)</p> <p>To design and make a prism (net) box to hold an artefact</p> <p>Investigate a collection of different prism shell structures including packaging</p> <p>Evaluate existing products to determine which designs children think are the most effective</p> <p>Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product</p> <p>Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas</p> <p>Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy</p> <p>Test and evaluate their own products against design criteria and the intended user and purpose</p>	<p style="text-align: center;">Food (Healthy Eating)</p> <p>To design and make a healthy lunchbox to eat at school</p> <p>Investigate a range of food products Linked to the principles of a varied and healthy diet using <i>The Eatwell Guide</i></p> <p>Gather information about existing products available relating to your product</p> <p>Generate and clarify ideas through discussion with peers and adults to develop design criteria including appearance, taste, texture and aroma for an appealing product for a particular user and purpose.</p> <p>Select and use appropriate utensils and equipment to prepare and combine ingredients</p> <p>Evaluate the ongoing work and the final product with reference to the design criteria and the views of others.</p>	<p style="text-align: center;">Mechanical Systems (Levers & Linkages)</p> <p>To design and make an information poster for a class display</p> <p>Investigate, analyse and evaluate books and, where available, other products which have a range of lever and linkage mechanisms.</p> <p>Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user.</p> <p>Select from and use appropriate tools with some accuracy to cut, shape and join paper and card.</p> <p>Select from and use finishing techniques suitable for the product they are creating.</p> <p>Evaluate their own products and ideas against criteria and user needs, as they design and make</p>
Y5	<p style="text-align: center;">Structures (Frame)</p> <p>To design and make a cube/cuboid frame box to hold an artefact</p> <p>Investigate and make annotated drawings of a range of portable and permanent cube/cuboid frame structures</p> <p>Generate, develop and model innovative ideas, through discussion, prototypes and annotated sketches.</p> <p>Competently select from and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks.</p>	<p style="text-align: center;">Mechanical Systems (Cams)</p> <p>To design and make a moving toy to entertain someone</p> <p>Make simple models of different types of cams or have toys in which the cam mechanisms can be seen</p> <p>Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources.</p> <p>Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work</p>	<p style="text-align: center;">Food (Culture & Seasonality)</p> <p>To design and make bread for a summer picnic</p> <p>Carry out sensory evaluations of a variety of existing food products and ingredients relating to the project</p> <p>Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose.</p> <p>Select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients.</p>

	<p>Use finishing and decorative techniques suitable for the product they are designing and making.</p> <p>Evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development</p>	<p>within the constraints of time, resources and cost.</p> <p>Compare the final product to the original design specification</p>	<p>Make, decorate and present the food product appropriately for the intended user and purpose</p> <p>Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements</p>
Y6	<p>Structures (Frame)</p> <p>To design and make a prism frame box to hold an artefact</p> <p>Investigate and make annotated drawings of a range of portable and permanent prism frame structures</p> <p>Carry out research into user needs and existing products, using surveys, interviews, questionnaires and web-based resources.</p> <p>Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost.</p> <p>Generate, develop and model innovative ideas, through discussion, prototypes and annotated sketches.</p> <p>Formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used.</p> <p>Competently select from and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks.</p> <p>Use finishing and decorative techniques suitable for the product they are designing and making.</p> <p>Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests.</p>	<p>Food (Culture & Seasonality)</p> <p>To design and make a nutritionally balanced hot cross bun for someone for Easter</p> <p>Children use first hand and secondary sources to carry out relevant research into existing products to include personal/cultural preferences, ensuring a healthy diet, meeting dietary needs</p> <p>Carry out sensory evaluations of a variety of existing food products and ingredients relating to the project</p> <p>Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose.</p> <p>Write a step-by-step recipe, including a list of ingredients, equipment and utensils</p> <p>Select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients.</p> <p>Make, decorate and present the food product appropriately for the intended user and purpose</p> <p>Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements.</p>	<p>Mechanical Systems (Combination)</p> <p>To design and make a moving toy that uses a combination of mechanisms to entertain someone</p> <p>Make simple models of different types of cams/levers & linkages or have toys in which the mechanisms can be seen</p> <p>Generate innovative ideas by carrying out research using surveys, interviews, questionnaires and web-based resources.</p> <p>Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views.</p> <p>Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team.</p> <p>Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work within the constraints of time, resources and cost</p> <p>Compare the final product to the original design specification.</p>