

**Jesse Gray Primary School**  
**Design & Technology Standards Map**

| YEAR GROUP    | EXPECTED STANDARD (AT)  | GREATER DEPTH (GD)  |
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| <b>FS2</b>    | Children can create products for a use and purpose that interests them. They talk about their ideas and can use models, pictures and words to describe what they want to do next. They explain what they are making and which tools they are using. They combined materials and components using simple joining techniques. They use simple cutting tools and manipulate materials with help, where needed. They talk about their own and other people's work and discuss the features, strengths and differences between them.   | Children can describe how their product works.<br><br>Children can explain what they like / don't like about their own product, and explain why.  |
| <b>YEAR 1</b> | Children can state what products they'll be designing and making, saying how they'll work. Children can talk about their designs and what they're making. Children can select from a range of materials, tools and equipment presented to them. They can measure, using non-standard units, cut, shape and join materials. Children can understand the movement of simple mechanisms such as levers and sliders. Children will be able to make a freestanding structure and understand how to make it stronger, stiffer and more stable.  | Children can explain the movement of simple mechanisms.<br><br>Children can evaluate and improve their freestanding structures in order to be more stable.  |
| <b>YEAR 2</b> | Children can generate their own ideas based on their investigations of products. Children can state what products they'll be designing and making, saying how they'll work. Children can select from a range of materials, tools and equipment, explaining their choices. They can measure, mark out, cut and shape materials. The children can assemble, join and combine materials and components using different techniques. Children can follow procedures for safety and hygiene, preparing a range of cold dishes. Children can understand the simple characteristics of materials and components. They can create a simple mechanism such as wheels and axles. Children should discuss their designs and products and compare against their design criteria. | Children understand that a 3-D textiles product can be assembled from two identical fabric shapes.<br><br>They can use the correct technical vocabulary for the projects they are undertaking.<br><br>Children can explain the simple mechanisms of wheels and axles.<br><br>Children can suggest how their products could be improved. |
| <b>YEAR</b>   | Children can gather information about the   | Children can order the main   |

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| <p><b>3</b></p>      | <p>needs and wants of particular individuals and groups through discussion. They can use annotated sketches to aid their designs. Children can select tools and equipment suitable for the task. Children will make a mechanism that moves. Children will be able to measure increasingly carefully before cutting materials. Children will select materials and components according to their function. They will begin to practise a variety of cooking techniques. They can explain what went well in their products and what they would change.</p>  | <p>stages of making and refer to it as they're making.</p> <p>They understand that food ingredients can be fresh, pre-cooked and processed.</p>   |
| <p><b>YEAR 4</b></p> | <p>Children can explain their choice of tools and equipment in relation to the skills and technique they'll be using. They will use research to think about how their product will meet the needs of different users. They will be able to develop their own design criteria and use these to inform their ideas. They can use annotated sketches to aid their designs. Children will be able to measure carefully before cutting materials. Children will make a more complex mechanism that moves, using a range of winches, pulleys, levers and linkages. They can make a shell structure and can explain how to reinforce it. Children will be able to use electrical systems in a product. They can reflect on their products against their own design criteria and consider the views of others to improve their work.</p>   | <p>Children make design decisions that take account of the availability of resources.</p> <p>They understand the impact of seasonality in their cooking and choose ingredients accordingly.</p>         |
| <p><b>YEAR 5</b></p> | <p>Their designs should explain how their product appeals to the audience and they can use cross-sectional and exploded diagrams. They can make a prototype first to test their ideas. Children can explain their choice of materials and components according the functional and aesthetic qualities. They will explain their choice of tools in relation to the techniques and skills needed. They will select construction materials according to their function. They will be able to incorporate aspects of electronics and art into a final project. Children can now ensure that their measurements are accurate enough so that everything is precise. They will further develop their cooking techniques, incorporating the different skills into dishes. They will be able to evaluate the appearance of their product against its function, refining and further improving it.</p> | <p>They understand that a recipe can be adapted by adding or substituting one or more ingredients.</p> <p>They know that materials can be combined and mixed to create more useful characteristics.</p> |
| <p><b>YEAR 6</b></p> | <p>Pupils generate ideas by carrying out research, including the effect of culture and society and</p>   | <p>They can formulate step by step plans as a guide to making.</p>  |

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|  | <p>use this information to inform their designs. They show that they are aware of constraints in their design choices, including time, resources and cost. They produce detailed designs and then select and work with a range of tools and equipment safely. Children can explain their choice of materials and components according to the functional and aesthetic qualities. They apply their understanding of materials, ingredients and components, and work with them with accuracy, paying attention to quality of finish and to function. They identify what is working well and what could be improved to overcome technical problems. They reflect on their designs as they develop, recognising the significance of knowledge and previous experience.</p> | <p>They use techniques that involve a number of steps.</p> <p>They demonstrate resourcefulness when tackling practical problems.</p> <p>They critically evaluate the quality of the design, manufacture and fitness for purpose of their products.</p> |
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