



## Year 4 Design and Technology Progression of Knowledge & Skills



National Curriculum	Year 4 Progression of Knowledge and Skills
<b>Design</b> use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	<b>Design For Manufacture:</b> <ul style="list-style-type: none"><li>I can start to generate ideas, considering the purposes for which they are designing – there may be links with Mathematics and Science.</li><li>When planning, consider the views of others, including intended users, to improve their work.</li><li>Understand some materials may be more <b>sustainable</b> or have easier supply than others.</li><li>When planning, explain their choice of materials and <b>components</b> according to function and aesthetic.</li></ul> <b>Creative Risk:</b> <ul style="list-style-type: none"><li>I can develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail.</li></ul> <b>Food:</b>
<b>Make</b> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities	<b>Design For Manufacture:</b> <ul style="list-style-type: none"><li>I can select a wider range of tools and techniques for making their product i.e. <b>construction materials</b> and kits, textiles, food <b>ingredients</b>, <b>mechanical components</b>.</li><li>I understand their choice of tools and equipment in relation to the skills and techniques they will be using.</li><li>I can <b>measure</b>, <b>mark out</b>, <b>cut</b>, <b>score</b> and <b>assemble components</b> with more accuracy.</li><li>I can start to work safely and accurately with a range of simple tools.</li></ul> <b>Creative Risk:</b> <ul style="list-style-type: none"><li>I can start to think about their ideas as they make progress and be willing to change things if this helps them to <b>improve</b> their work.</li></ul> <b>Food:</b> <ul style="list-style-type: none"><li>I can select a wider range of tools and techniques for making their product i.e. <b>construction materials</b> and kits, textiles, food <b>ingredients</b>, <b>mechanical components</b>.</li></ul>
<b>Evaluating</b> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology	<b>Design For Manufacture:</b> <b>Creative Risk:</b> <ul style="list-style-type: none"><li>I can evaluate their products by carrying out appropriate tests.</li><li>I can start to evaluate their work during and at the end of the assignment.</li></ul> <b>Food:</b>

have helped shape the world	
<b>Technical knowledge</b> apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.	<p><b>Design For Manufacture:</b></p> <p><b>Creative Risk:</b></p> <ul style="list-style-type: none"> <li>Know that structures need stable foundations and effective weight distribution.</li> </ul> <p><b>Food:</b></p> <ul style="list-style-type: none"> <li>I can understand how to prepare and cook predominantly <b>savory</b> dishes safely and hygienically including, where appropriate, the use of a heat source.</li> <li>I know how to use a range of techniques such as peeling, chopping, slicing, grating and mixing.</li> <li>I know that a healthy diet is made up from a variety and balance of different foods and I understand the content of sugars.</li> <li>I know that to be active and healthy, food and drink are needed to <b>provide energy</b> for the body.</li> </ul>

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<b>Developing planning and communicating ideas</b>	<ul style="list-style-type: none"> <li>I can start to generate ideas, considering the purposes for which they are designing - there may be links with Mathematics and Science.</li> <li>I can develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail.</li> <li>When planning, I can consider the views of others, including intended users, to improve their work.</li> <li>I understand some materials may be more <b>sustainable</b> or have easier supply than others</li> <li>When planning, I can explain their choice of materials and <b>components</b> according to function and aesthetic.</li> </ul>
<b>Working with tools, equipment, materials and components to make quality products</b>	<ul style="list-style-type: none"> <li>I can Select a wider range of tools and techniques for making their product i.e. <b>construction materials</b> and kits, textiles, food <b>ingredients</b>, <b>mechanical components</b>.</li> <li>I Understand their choice of tools and equipment in relation to the skills and techniques they will be using.</li> <li>I can <b>measure, mark out, cut, score and assemble components</b> with more accuracy.</li> <li>I can start to work safely and accurately with a range of simple tools.</li> <li>I can start to think about their ideas as they make progress and be willing to change things if this helps them to <b>improve</b> their work.</li> </ul>
<b>Evaluating processes and products</b>	<ul style="list-style-type: none"> <li>I can evaluate their products by carrying out appropriate tests.</li> <li>I can start to evaluate their work during and at the end of the assignment.</li> </ul>
<b>Food and Nutrition</b>	<ul style="list-style-type: none"> <li>I know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>I know that a healthy diet is made up from a variety and balance of different food and I understand the content of sugars.</li> <li>I know that to be active and healthy, food and drink are needed to <b>provide energy</b> for the body.</li> <li>I Understand how to prepare and cook predominantly <b>savory</b> dishes safely and hygienically including, where appropriate, the use of a heat source.</li> </ul>
<b>Vocabulary:</b> (in addition to, and building on previous year- see also <b>BOLD</b> items above)	
Axil Trade, fair trade, import, export, store, industry, Europe, Continent, plant, shipping Broach, fasten, clip Wire, circuit, bulb, torch, shine, produce, light	

### Assessment End Points Year 4

Knowledge	Skills
<ul style="list-style-type: none"> <li>● I know how to use a range of cooking techniques such as peeling, chopping, slicing, grating and mixing.</li> <li>● I know that, for a structure to be stable, it requires good foundations and effective weight distribution.</li> <li>● I know how to measure, mark out, cut, score and assemble components with more accuracy.</li> <li>● I know that, for a structure to be stable, it requires good foundations and effective weight distribution.</li> <li>● I know that the design of a chair impacts its effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>● I can prepare and cook predominantly <b>savory</b> dishes safely and hygienically including, where appropriate, the use of a heat source.</li> <li>● I can demonstrate willingness to change things if this helps me to <b>improve</b> my work.</li> <li>● I can generate ideas, considering the purposes for which I am designing.</li> <li>● I can prepare a <b>savory</b> dish that is part of a balanced diet which is made of healthy ingredients.</li> <li>● I can use a range of cooking techniques: mixing, measuring, selecting, blending</li> <li>● I can predict what a successful product looks like, considering its purpose, and evaluate it (against a criteria).</li> <li>● I can measure, mark out, and cut different materials with some accuracy.</li> </ul>