

## Design and Technology – Knowledge and Skills Progression

|                                       | EYFS<br>Key Skills  | Year 1<br>Key Skills   | Year 2<br>Key Skills  |
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| Designing                             | <ul style="list-style-type: none"> <li>Select appropriate resources</li> <li>Use gestures, talking and arrangements of materials and components to show design</li> <li>Use contexts set by the teacher and myself</li> <li>Use language of designing and making (join, build, shape, longer, shorter, heavier etc.)</li> </ul>   | <ul style="list-style-type: none"> <li>have own ideas</li> <li>explain what I want to do</li> <li>explain what my product is for, and how it will work</li> <li>use pictures and words to plan, begin to use models</li> <li>design a product for myself following design criteria</li> <li>research similar existing products</li> </ul>  | <ul style="list-style-type: none"> <li>have own ideas and plan what to do next</li> <li>explain what I want to do and describe how I may do it</li> <li>explain purpose of product, how it will work and how it will be suitable for the user</li> <li>describe design using pictures, words, models, diagrams, begin to use ICT</li> <li>design products for myself and others following design criteria</li> <li>choose best tools and materials, and explain choices</li> <li>use knowledge of existing products to produce ideas</li> </ul>       |
| Making                                | <ul style="list-style-type: none"> <li>Construct with a purpose, using a variety of resources</li> <li>Use simple tools and techniques</li> <li>Build / construct with a wide range of objects</li> <li>Select tools &amp; techniques to shape, assemble and join</li> <li>Replicate structures with materials/ components</li> <li>Discuss how to make an activity safe and hygienic</li> <li>Record experiences by drawing, writing, voice recording</li> <li>Understand different media can be combined for a purpose</li> </ul> | <ul style="list-style-type: none"> <li>explain what I'm making and why</li> <li>consider what I need to do next</li> <li>select tools/equipment to cut, shape, join, finish and explain choices</li> <li>measure, mark out, cut and shape, with support</li> <li>choose suitable materials and explain choices</li> <li>try to use finishing techniques to make product look good</li> <li>work in a safe and hygienic manner</li> </ul> | <ul style="list-style-type: none"> <li>explain what I am making and why it fits the purpose</li> <li>make suggestions as to what I need to do next.</li> <li>join materials/components together in different ways</li> <li>measure, mark out, cut and shape materials and components, with support.</li> <li>describe which tools I'm using and why</li> <li>choose suitable materials and explain choices depending on characteristics.</li> <li>use finishing techniques to make product look good</li> <li>work safely and hygienically</li> </ul> |
| Evaluate                              | <ul style="list-style-type: none"> <li>Adapt work if necessary</li> <li>Dismantle, examine, talk about existing objects/structures</li> <li>Consider and manage some risks</li> <li>Practise some appropriate safety measures independently</li> <li>Talk about how things work</li> <li>Look at similarities and differences between existing objects / materials / tools</li> <li>Show an interest in technological toys</li> <li>Describe textures</li> </ul>  | <ul style="list-style-type: none"> <li>talk about my work, linking it to what I was asked to do</li> <li>talk about existing products considering: use, materials, how they work, audience, where they might be used</li> <li>talk about existing products, and say what is and isn't good</li> <li>talk about things that other people have made</li> <li>begin to talk about what could make product better</li> </ul>                 | <ul style="list-style-type: none"> <li>describe what went well, thinking about design criteria</li> <li>talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion</li> <li>evaluate how good existing products are</li> <li>talk about what I would do differently if I were to do it again and why</li> </ul>  |
| <b>Knowledge- Sculpture- Autumn 2</b> |   | <b>Knowledge- Mechanisms- Summer 2 (KS1 only)- to be completed in spring 2</b>   | <b>Knowledge- Textiles and Materials- Spring 2</b>  |

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| <p><b>EYFS</b></p> <ul style="list-style-type: none"> <li>• A sculpture is usually 3D (not flat)</li> <li>• A sculpture can be made out of a range of materials such as junk, clay, playdough, Construction toys eg lego,</li> <li>• A sculpture needs to be free standing</li> <li>• Sculptures can be joined together using different materials such as glue, tape, staples</li> </ul>  | <p><b>Year 1</b></p> <p><b>Year 2</b></p>  | <p><b>EYFS</b></p> <ul style="list-style-type: none"> <li>• Materials can be soft or hard</li> <li>• Textiles are materials such as wool, string, cotton, felt</li> <li>• Textiles are usually soft</li> <li>• Textiles are things such as clothes, rugs, cushion covers</li> </ul>  |
| <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>• A sculpture is usually a 3D art form.</li> <li>• Sculptures can be made from natural or man-made materials.</li> <li>• Sculptures can be used to represent a range of creative ideas. They can be permanent or temporary.</li> <li>• A free-standing structure needs a solid or flat base in order to be able to stand.</li> <li>• Materials can be joined in a variety of ways e.g. glue, masking tape.</li> <li>• Water makes clay softer and easier to mould, but that too much can make it unworkable.</li> <li>• Clay can crack when it dries if it is too thin.</li> </ul> <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li>• A sculpture is 3D form or horizontal representation using 3D materials and can be carved from wood or stone or constructed using other materials.</li> <li>• Clay is a natural material and has been used to produce pots because of its malleable nature</li> <li>• Materials can be man-made or natural and have different associated qualities</li> <li>• The choice of a material affects what the product will look like and its use</li> </ul> | <p><b>Year 1 and 2- textiles- needs breaking up in year groups</b></p> <ul style="list-style-type: none"> <li>• Textiles are flexible materials woven from fibres</li> <li>• Textiles are used to make clothing, sheets, towels, liners, carpets, rugs and a wide variety of other products</li> <li>• Materials can be sorted according to specific qualities— warm, cold, shiny, smooth.</li> <li>• Lots of materials are considered textiles such as wool, silk, cotton, nylon, felt and polyester</li> <li>• Textile production is one of the largest industries in the world- huge factories make millions of textiles each year</li> <li>• Lots of small textile producers still exist, many still produce textiles by hand</li> <li>• Blankets and quilts are often made using cotton because it is soft and is a good insulator</li> <li>• Applique is a sewing technique where fabric shapes are attached onto the main fabric to create decoration.</li> <li>• Childrens clothes are often made from cotton or polyester</li> <li>• Designers of textile products need to think about the purpose and the user</li> <li>• Different materials have different properties which make them good for different purposes</li> <li>• Templates are used to cut around, producing shapes and patterns. They can be made out of paper, card, cardboard and other materials</li> <li>• There are different ways of joining fabrics together. Some joins are quicker (eg stapling, safety pins), whilst some are more secure (sewing and glueing)</li> <li>• Some joining techniques are easier to hide</li> </ul> | <p><b>Year 1 and 2- textiles- needs breaking up in year groups</b></p> <ul style="list-style-type: none"> <li>• Textiles are flexible materials woven from fibres</li> <li>• Textiles are used to make clothing, sheets, towels, liners, carpets, rugs and a wide variety of other products</li> <li>• Materials can be sorted according to specific qualities— warm, cold, shiny, smooth.</li> <li>• Lots of materials are considered textiles such as wool, silk, cotton, nylon, felt and polyester</li> <li>• Textile production is one of the largest industries in the world- huge factories make millions of textiles each year</li> <li>• Lots of small textile producers still exist, many still produce textiles by hand</li> <li>• Blankets and quilts are often made using cotton because it is soft and is a good insulator</li> <li>• Applique is a sewing technique where fabric shapes are attached onto the main fabric to create decoration.</li> <li>• Childrens clothes are often made from cotton or polyester</li> <li>• Designers of textile products need to think about the purpose and the user</li> <li>• Different materials have different properties which make them good for different purposes</li> <li>• Templates are used to cut around, producing shapes and patterns. They can be made out of paper, card, cardboard and other materials</li> <li>• There are different ways of joining fabrics together. Some joins are quicker (eg stapling, safety pins), whilst some are more secure (sewing and glueing)</li> <li>• Some joining techniques are easier to hide</li> </ul> |
| <p><b>Sculpture- Skills- Autumn 2</b></p>   | <p><b>Mechanics- skills (KS1 only)- Summer 2</b></p>   | <p><b>Textiles and materials- Skills- Spring 2</b></p>   |
| <p><b>EYFS</b></p> <ul style="list-style-type: none"> <li>• Uses various construction materials.</li> <li>• Explore a range of malleable materials to make models or pictures using – playdough, plasticine, clay, salt dough, cooking materials.</li> <li>• Realises that tools can be used for a purpose.</li> <li>• Experiments to create different textures.</li> </ul>   | <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>• begin to use levers or slides</li> </ul> <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li>• use levers or slides</li> <li>• begin to understand how to use wheels and axles</li> <li>• Create products using winding mechanisms</li> </ul>  | <p><b>EYFS</b></p> <ul style="list-style-type: none"> <li>• Beginning to be interested in and describe the texture of things. explore different fabric with their hands</li> <li>• Handling, manipulating and enjoying using materials and describing the sensory experience</li> <li>• Simple collages including simple weaving.</li> </ul>   |

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| <ul style="list-style-type: none"> <li>• Manipulates materials to achieve a planned effect.</li> <li>• Uses simple tools to effect changes to materials.</li> <li>• Design and make 3D figurines using a range of materials that the children choose</li> </ul> <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>• begin to measure and join materials, with some support</li> <li>• describe differences in materials</li> <li>• suggest ways to make material/product stronger</li> </ul> <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li>• measure materials</li> <li>• describe some different characteristics of materials</li> <li>• join materials in different ways</li> <li>• use joining, rolling or folding to make it stronger</li> <li>• use own ideas to try to make product stronger</li> </ul> <p><b>End of Key Stage Expectations</b></p> <ul style="list-style-type: none"> <li>• Build structures, exploring how they can be made stronger, stiffer and more stable</li> </ul> | <p><b>End of Key Stage Expectations</b></p> <ul style="list-style-type: none"> <li>• Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</li> </ul> | <ul style="list-style-type: none"> <li>• Use ribbons and string to thread and make patterns.</li> <li>• Experiments to create different textures.</li> <li>• Uses simple tools and combines different media techniques competently and appropriately to create new effects.</li> <li>• Selects tools and techniques needed to shape, assemble and join materials they are using.</li> <li>• Use fabric, wool or thread to make models with recycled items.</li> <li>• Use fabrics for role play</li> <li>• Create a simple weave using strips of paper.</li> <li>• use scissors to cut and trim fabric, yarn and string</li> <li>• spread glue and stick fabric, yarn and wool on to a chosen surface</li> <li>• use fabric creatively with other resources, such as paint or wax crayons</li> <li>• see what happens when different types of fabric get wet.</li> <li>• create dens and tents.</li> </ul> <p><b>Year 1</b></p> <ul style="list-style-type: none"> <li>• measure, cut and join textiles and materials safely to make a product, with some support</li> <li>• choose suitable textiles</li> <li>• Demonstrates a range of cutting and shaping techniques such as tearing, cutting, folding and curling</li> <li>• Shape textiles using templates</li> <li>• Colour and decorate textiles</li> </ul> <p><b>Year 2</b></p> <ul style="list-style-type: none"> <li>• measure textiles</li> <li>• Measure and mark out to the nearest cm</li> <li>• Demonstrate a range of joining techniques such as gluing, hinges or combining materials to strengthen</li> <li>• join textiles together to make a product, and explain how I did it</li> <li>• carefully cut textiles to produce accurate pieces</li> <li>• explain choices of textile</li> <li>• understand that a 3D textile structure can be made from two identical fabric shapes</li> <li>• Join textiles using a running stitch</li> <li>• Colour and decorate textiles using a number of techniques</li> </ul> |
| <p><b>Knowledge- Food and Nutrition- ongoing throughout the year with Mrs Bailey</b></p>   | <p><b>Skills- Food and Nutrition- ongoing throughout the year with Mrs Bailey</b></p>   |  |

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| <b>EYFS</b>   | <b>EYFS</b>  |
| <b>Year 1</b> | <ul style="list-style-type: none"> <li>• Begin to understand some food preparation tools, techniques and processes</li> <li>• Practise stirring, mixing, pouring, blending</li> <li>• Discuss how to make an activity safe and hygienic</li> <li>• Discuss use of senses</li> <li>• Understand need for variety in food</li> <li>• Begin to understand that eating well contributes to good health</li> </ul>  |
| <b>Year 2</b> | <b>Year 1</b> <ul style="list-style-type: none"> <li>• describe textures</li> <li>• wash hands &amp; clean surfaces</li> <li>• think of interesting ways to decorate food</li> <li>• Measure or weigh using measuring cups or electric scales</li> <li>• say where some foods come from, (i.e. plant or animal)</li> <li>• describe differences between some food groups (i.e. sweet, vegetable etc.)</li> <li>• discuss how fruit and vegetables are healthy</li> <li>• cut, peel and grate safely and hygienically, with support</li> </ul>  |
|               | <b>Year 2</b> <ul style="list-style-type: none"> <li>• explain hygiene and keep a hygienic kitchen</li> <li>• describe properties of ingredients and importance of varied diet</li> <li>• say where food comes from (animal, underground etc.)</li> <li>• describe how food is farmed, home-grown, caught</li> <li>• draw eat well plate; explain there are groups of food</li> <li>• describe “five a day”</li> <li>• cut, peel and grate with increasing confidence</li> </ul> <b>End of Key Stage Expectations</b> <ul style="list-style-type: none"> <li>• Use the basic principles of a healthy and varied diet to prepare dishes</li> <li>• Understand where food comes from.</li> </ul> |

**KS1 End Points**

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| <p>Is able to design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>Can generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</p> | <p>Is able to select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Can select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> | <p>Can explore and evaluate a range of existing products</p> <p>evaluate their ideas and products against design criteria.</p> | <p>Can build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p> | <p>Uses the basic principles of a healthy and varied diet to prepare dishes, understanding where food comes from.</p> |
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