

# DESIGN AND TECHNOLOGY IMPLEMENTATION AND CURRICULUM PROGRESSION



# Design and Technology Implementation and Progression at Black Horse Hill Infant School



| Vocabulary and Reading Development   | Inclusion  | Assessment  |
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| <p>Spoken language is promoted in all lessons for all children including strategies such as: no hands up , explicit teaching of vocabulary, modelled thinking and use of vocabulary by the teacher, think, pair, share, my turn-your turn, Talk Partners, Sentence Stems</p> <p>Reading is promoted wherever possible and wider texts are used to deepen knowledge across all subject areas.</p> | <p>All children will be given the same task because we believe in teaching a mastery approach across all subject areas and equal access for all.</p> <p>Quality first teaching for all children<br/>Teacher modelling and scaffolded practice for all children.<br/>Focus groups with adult support for children needed further support<br/>Pre-teach sessions<br/>Talk partners to build confidence<br/>Now and next boards to support completion of tasks<br/>Intervention<br/>External advice sought to support inclusion</p> | <p>Prior knowledge/retrieval opportunities are included at the beginning of units of work so that planning can be adapted/amended to support gaps or misconceptions.<br/>Clear sequence of lessons which identify the key knowledge that children need to know at the end of a lesson/unit of work.</p> <p>Children’s work</p>  |
| Retrieval practice (Knowing more and remembering more)   | Cultural Capital opportunities   | British values and SMSC   |
| <p>Expectations for classroom working walls.<br/>Revisit sessions<br/>Retrieval/fluency sessions<br/>Knowledge organisers published versions and class knowledge organisers</p>  | <p>Trips- Port Sunlight Village, School Art Exhibition<br/>Visiting artists<br/>School assemblies: Remembrance, Gun Powder plot<br/>Significant figures- different artists taught in each year and revisited to build knowledge.<br/>Experiences-</p>  | <p>In DT, children experience the freedom to express themselves as individuals in the choices they make when creating their designs. (Individual Liberty)<br/>They will understand that it is not always possible or right to have their own way and understand the value of compromise (Democracy). Through DT they will accept and tolerate ideas that are different than their own, The children will understand the importance of safety rules when using tools and understand that if these rules are not followed that there are consequences to this (Rule of law).<br/>To offer supportive comments in evaluations that will improve learning outcomes in a way that is objective but sensitive to the listener (Mutual Respect).</p> |



## Black Horse Hill Infant School DT Curriculum Progression Map

|                    | Foundation 1   | Foundation 2   | Year 1   | Year 2   |
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|                    | <p><b>EYFS 3 and 4 year olds</b><br/>Explore different materials freely, to develop their ideas about how to use them and what to make.<br/>Develop their own ideas and then decide which materials to use to express them.<br/>Join different materials and explore different textures</p> <p>Uses different tools for different purposes.</p> <p>Uses various construction materials e.g joining pieces, stacking vertically, horizontally, balancing.</p> <p>Evaluate designs and review as they try to achieve a goal. Improve designs and structures that have been made.</p> | <p><b>Foundation 2.</b><br/>Talk about their creations and explain the process that they have used.</p> <p>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Create collaboratively, sharing ideas, resources and skills.</p> <p>Uses various construction materials e.g joining pieces, stacking vertically, horizontally, balancing.</p> <p>Evaluate designs and review as they try to achieve a goal. Improve designs and structures that have been made.</p> | <p><b>Key stage 1</b><br/>Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught to:</p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>design purposeful, functional, appealing products for themselves and other users based on design criteria</li> <li>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> </ul> <p><b>Make</b></p> <ul style="list-style-type: none"> <li>select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</li> <li>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> </ul> <p><b>Evaluate</b></p> <ul style="list-style-type: none"> <li>explore and evaluate a range of existing products</li> <li>evaluate their ideas and products against design criteria</li> </ul> <p><b>Technical knowledge</b></p> <ul style="list-style-type: none"> <li>build structures, exploring how they can be made stronger, stiffer and more stable</li> <li>explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products</li> </ul> <p><b>Cooking and nutrition</b><br/>As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.<br/>In KS1 pupils should be taught to:</p> <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> |  |
| <b>Autumn Term</b> | Introduce the use of different tools and materials used for DT for example glue sticks, glue spreaders sellotape,  | Safely use and explore a variety of materials to create own designs. Investigate joining techniques  | <b>Weaving</b><br><br><b>End of unit outcome</b>   | <b>Exploring Honey Fun Food Chef</b><br><b>End of unit outcome</b> |

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|  | <p>masking tape, and scissors. Tools and resources modelled to children. Children begin to select tools/resources for different purposes.</p> <p>Explore construction materials available in Continuous provision. Initiate own designs and refine with adult support.</p> <p><b>Build it up:</b> Children learn about structures and materials. Children build bridges</p> | <p>Explore construction materials available in Continuous provision.</p> <p><b>Create houses using junk modelling materials</b> and have the opportunity to refine and improve designs.</p> <p><b>Making healthy vegetable Soup</b></p> <p>Be introduced to basic food hygiene and the importance of handwashing.</p> <p>To name different vegetables and know where they grow.</p> <p>To know that vegetables contribute to a healthy diet.</p> <p>Recognise how to peel and chop vegetables and that the components make end product.</p> <p>To say whether they like or dislike the soup and how it can be made better.</p> | <p>The children will design and make a woven decoration that can hang on a wall tree.</p> <p><b>National Curriculum links (see above)</b></p> <p><b>The children will learn:</b></p> <ul style="list-style-type: none"> <li>• What Design and Technology is.</li> <li>• What weaving is and how it is used in different countries</li> <li>• How to apply a weave technique</li> <li>• How to design and make a woven decoration that meets a design brief</li> <li>• To generate, develop, model and communicate their ideas through talking and making.</li> <li>• To select materials/textiles.</li> <li>• To reflect on their design and evaluate success</li> </ul> | <p>The children will design and make a meal with the Fun Food chef based around Honey.</p> <p><b>National Curriculum links (see above)</b></p> <p><b>The children will learn:</b></p> <ul style="list-style-type: none"> <li>• Know about the importance of hygiene in food preparation. Recognise that some people have allergies and this can influence food preparation.</li> <li>• Know that a range of tools and equipment can be used in food preparation, e.g. slicing, chopping, cutting, rolling, kneading, shaping.</li> <li>• Select a range of ingredients according to their characteristics to mix together to make food containing honey.</li> <li>• Use the basic principles of a healthy and varied diet. To begin to recognise that there are different food groups. Understand where food comes from</li> <li>• To name foods that are nutritious and healthy and why they are important for a balanced diet.</li> <li>• Evaluate and critique their cooking and meals and say how it could be improved.</li> </ul> |
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|                    |  |   |  | <p><b>Movers and Shakers – William Morris</b><br/>– Port Sunlight Trip</p> <p>Textiles - Make copper tiles using natural physicals such as leaves, pinecones, trees etc to design a pattern for copper tile. Emboss the tile with pattern.</p>  |
| <b>Vocabulary</b>  | <p>Glue spreader, sellotape, masking tape, glue stick, glue, scissors, stick, join, plan, build, design, cut, fold, strong, weak</p>   | <p>Design, create, make, evaluate, join, stick, model, strong, stable.<br/>Ingredients, mix, stir, change, cut, slice.</p>  | <p>Design and Technology, design, design brief, weaving, loom, yarn, product</p>   | <p>Weigh, measure, chop, peel, slice, cut, roll, and knead, vegetables, food groups, nutrition, hygiene, safety, mix, honey.<br/>Design, product, design criteria, drawing, pattern, evaluate.</p>  |
| <b>Spring Term</b> | <p>Introduce the use of different tools and materials used for DT for example glue sticks, glue spreaders sell tape, masking tape, and scissors. Tools and resources are modelled to children. Children begin to select tools resources for different purposes.</p> <p>Explore construction materials available in Continuous provision.</p> <p>Children to make their own instruments selecting and choosing appropriate materials.</p> | <p>Safely use and explore a variety of materials to create own designs. Investigate joining techniques</p> <p>Build their own models using recycled materials. Create models collaboratively sharing ideas and resources.</p> | <p><b>Introduction to Sculpture</b></p> <p><b>End of unit outcome</b><br/>The children will create a Woodland Sculpture using Manmade and Natural materials.</p> <p><b>National Curriculum links (see above)</b></p> <p><b>The children will learn:</b></p> <ul style="list-style-type: none"> <li>• What a sculpture is and recognise sculpture in different environments.</li> <li>• The difference between a manmade and natural sculpture.</li> <li>• How to creatively join, stack, sort, shape, connect and mould materials to make sculptures.</li> <li>• To design and make a sculpture that meets the requirements in a design brief</li> <li>• To reflect and evaluate their designs.</li> <li>• To learn about the work of Andy Goldsworthy.</li> </ul> | <p><b>Cut, Stitch and Join</b></p> <p><b>End of unit outcome</b><br/>The children will create a bag tag using sewing techniques to join fabrics.</p> <p><b>National Curriculum links (see above)</b></p> <p><b>The children will learn:</b></p> <ul style="list-style-type: none"> <li>• To explore and evaluate a range of existing products</li> <li>• Select from a range of tools and equipment to perform practical tasks.</li> <li>• To learn how to complete a basic running stitch to join fabric.</li> <li>• Select from a range of materials to design and make their own product.</li> </ul> <p><b>Bog Baby Sculptures</b><br/>Design a Bog baby using drawing and labelling.<br/>Combine ingredients to make a malleable material.<br/>Use different components to create their design.<br/>Evaluate the end product and identify how it could be improved.</p> |

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| <b>Vocabulary</b>  | Glue spreader, sellotape, masking tape, glue stick, glue, scissors, stick, join, plan, build, design, cut, fold, strong, weak  | Design, create, make, evaluate, join, stick, model, strong, stable  | Design, plan, sculpture, sculptor natural, man-made, structure, connect, join material  | Design, criteria, fold, join, material, sew, running stitch, needle, thread, cut, stick, evaluate, improve.  |
| <b>Summer Term</b> | <p>Introduce the use of different tools and materials used for DT for example glue sticks, glue spreaders sellotape, masking tape, and scissors. Tools and resource are modelled to children. Children begin to select tools resources for different purposes.</p> <p>Select tools and materials to create own designs.</p> <p>Explore construction materials available in Continuous provision.</p> | <p>Safely use and explore a variety of materials to create own designs. Investigate joining techniques</p> <p>Create a rooftop garden using materials inspired by Errol's garden.</p> <p>Weaving using textiles.</p> <p>Design and make animal masks.</p> | <p><b>Food Technology</b></p> <p><b>End of unit outcome</b><br/>The children will create a healthy layered dessert.</p> <p><b>National Curriculum links (see above)</b></p> <ul style="list-style-type: none"> <li>• Design purposeful, functional, appealing products for themselves and other users based on design criteria.</li> <li>• To generate, develop, model and communicate their ideas through talking and making.</li> <li>• select from and use a range of tools and equipment to perform practical tasks for food preparation.</li> <li>• select from and use a wide range of materials and components/ingredients, according to their characteristics</li> <li>• To understand the basic principles of a healthy and varied diet to prepare dishes.</li> <li>• To reflect and evaluate their design</li> </ul> <p><b>Moon Zoom!</b><br/>Design and make a model spaceship or rocket using a variety of junk materials. Investigate different ways to make and</p> | <p><b>Mechanisms- Moving Pictures</b><br/><b>End of unit outcome</b><br/>The children will create a moving picture using mechanisms.</p> <p><b>National Curriculum links (see above)</b></p> <p><b>The children will learn:</b></p> <ul style="list-style-type: none"> <li>• Explore types of mechanisms and how they work.</li> <li>• Understand and identify levers, linkages, pivots</li> <li>• Generate a design for a moving picture according to a brief.</li> <li>• To reflect and evaluate their design</li> </ul> |

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|                   |   |  | join their structures, using taping, gluing and tying. Explore ways of making a structure sturdier so that it can stand alone. |   |
| <b>Vocabulary</b> | Glue spreader, sellotape, masking tape, glue stick, glue, scissors, stick, join, plan, build, design, cut, fold, strong, weak | Design, make, evaluate, materials, joining, weaving, gluing. | Design, make, prepare, chop, slice, healthy, evaluate, structure, strong, stable, stiff, properties, materials, product.       | Design, evaluate, make, lever, pull, push, stronger, stable, pivot. Mechanism, pivot, fixed point, movement, arch, strong, stiff, components, one direction, opposite direction, linkage, fixed base pivot, moving pivot. |

### DT Lesson Structure

#### Long Term Memory (Retrieval)

Review and revisit previous knowledge-make links to knowledge from previous lesson, unit, term, year.

Amend future future planning to incorporate and gaps in knowledge.

### **Introduce new knowledge**

Teacher introduces vocabulary and new knowledge in small steps to the children making links to prior learning.

Teachers will provide modelling of the new DT technique or skill.

### **Developing the Knowledge**

Children will refine and practise the new technique or skill required.

### **Applying the Knowledge**

Children will apply the technique/skill to complete a DT project or product.

### **Review-has learning been successful?**

Teachers and children will review and evaluate their DT product against the design criteria.