



# HAYES MEADOW PRIMARY SCHOOL

## DT KNOWLEDGE AND SKILLS



Designing			
Reception	Year 1	Year 2	
<ul style="list-style-type: none"> <li>• Create collaboratively, sharing ideas, resources and skills.</li> <li>• Return to and build on their previous learning, refining ideas and developing their ability to represent them.</li> </ul>	<ul style="list-style-type: none"> <li>• Use own ideas to design something.</li> <li>• Describe how their own idea works.</li> <li>• Design a product which moves.</li> <li>• Explain to someone else how they want to make their product.</li> <li>• Make a simple plan before making.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the purpose of their product.</li> <li>• Think of an idea and plan what to do next.</li> <li>• Explain why they have chosen specific textiles or materials.</li> <li>• Draw a simple design and label the parts of their product.</li> </ul>	
Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• Consider the purpose and audience for their product.</li> <li>• Prove that a design meets the specification.</li> <li>• Design a product and make sure that it look attractive.</li> <li>• Draw annotated designs with labels that detail their material choices and suitability of the given materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Use ideas from other people when designing eg. creating a mood board of existing products.</li> <li>• Produce a plan and explain the use of materials, equipment and processes.</li> <li>• Persevere and adapt work when original ideas do not work.</li> <li>• Communicate ideas through annotated sketches that show different viewpoints of the product.</li> </ul>	<ul style="list-style-type: none"> <li>• Design, with a range of initial ideas, after collecting information from investigating existing products.</li> <li>• Research and using ICT where appropriate.</li> <li>• Produce a detailed, step-by step plan.</li> <li>• Explain how a product will appeal to a specific audience and how it meets the purpose.</li> <li>• Create annotated 3D designs of their design on isometric or squared paper.</li> </ul>	<ul style="list-style-type: none"> <li>• Use market research of existing products to inform their design.</li> <li>• Follow and refine original plans.</li> <li>• Justify planning in a convincing way.</li> <li>• Draw detailed 3D designs using exploded diagrams or cross sectional drawing where appropriate to display finer details.</li> <li>• Show that culture and society is considered in plans and design specification.</li> </ul>



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Making			
Reception	Year 1	Year 2	
<ul style="list-style-type: none"> <li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> <li>Develop fine motor skills using a range of tools competently.</li> </ul>	<ul style="list-style-type: none"> <li>Use own ideas to make something.</li> <li>Use tools safely.</li> <li>Assemble and join materials using a variety of methods.</li> </ul>	<ul style="list-style-type: none"> <li>Choose tools and materials and explain why they have chosen them.</li> <li>Join materials and components in different ways.</li> <li>Can identify and name a simple selection of hand tools.</li> <li>Carry out finishing techniques that have been modelled by the teacher.</li> <li>Cut and join fabric to make a simple product.</li> <li>Use simple sewing techniques.</li> </ul>	
Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>Follow a step-by-step plan, choosing the right equipment and materials.</li> <li>Select the most appropriate tools and techniques for a given task.</li> <li>Work accurately to measure, make cuts and make holes.</li> <li>Choose finishing techniques to improve the appearance of their products using a range of equipment including ICT.</li> </ul>	<ul style="list-style-type: none"> <li>Know which tools to use for a particular task and show knowledge of handling the tool.</li> <li>Know which material is likely to give the best outcome based on its properties.</li> <li>Mark, measure and cut accurately.</li> <li>Sew, weave or knit using a range of stitches.</li> </ul>	<ul style="list-style-type: none"> <li>Name and use a range of tools and equipment competently.</li> <li>Make a prototype before making a final version.</li> <li>Carry out finishing techniques to enhance the appearance and function of their product.</li> </ul>	<ul style="list-style-type: none"> <li>Know which tool to use for a specific practical task.</li> <li>Know how to use any tool correctly and safely.</li> <li>Know what each tool is used for.</li> <li>Explain why a specific tool is best for a specific action.</li> <li>Pin, sew and stitch materials together to create a product.</li> </ul>



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<b>Evaluating</b>			
<b>Reception</b>	<b>Year 1</b>	<b>Year 2</b>	
<ul style="list-style-type: none"><li>• Share their creations, explaining the process they have used.</li></ul>	<ul style="list-style-type: none"><li>• Describe how something works.</li><li>• Explain what works well and not so well in the model they have made.</li></ul>	<ul style="list-style-type: none"><li>• Explain what went well with their own work.</li></ul>	
<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>
<ul style="list-style-type: none"><li>• Explain how to improve a finished model.</li><li>• Know why a model has or has not been successful.</li></ul>	<ul style="list-style-type: none"><li>• Evaluate and suggest improvements for designs.</li><li>• Evaluate products for both their purpose and appearance.</li><li>• Evaluate their own and others work.</li><li>• Present a product in an interesting way.</li></ul>	<ul style="list-style-type: none"><li>• Suggest alternative plans; outlining the positive features and drawbacks.</li><li>• Evaluate appearance and function against original criteria.</li></ul>	<ul style="list-style-type: none"><li>• Test and evaluate designed products with specified audience where possible.</li><li>• Explain how products should be stored and give reasons.</li><li>• Evaluate product against clear criteria.</li></ul>



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## DT KNOWLEDGE AND SKILLS



Technical Knowledge			
Reception	Year 1	Year 2	
<ul style="list-style-type: none"> <li>Share their creations, explaining the process they have used.</li> </ul>	<ul style="list-style-type: none"> <li>Make their own model stronger.</li> <li>Make a product that moves (eg wind/ simple motor- powered boat).</li> </ul>	<ul style="list-style-type: none"> <li>Make a model stronger and more stable.</li> <li>Use wheels and axels, when appropriate to do so.</li> <li>Know how simple mechanisms or keg. Sliders and linkages.</li> </ul>	
Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>Know how to strengthen a product by stiffening a given part or reinforce a part of the structure.</li> <li>Use a simple IT program within the design.</li> <li>Create a product with a simple mechanism (eg levers).</li> </ul>	<ul style="list-style-type: none"> <li>Link scientific knowledge by using lights, switches or buzzers.</li> <li>Use IT where appropriate to add to the quality of the product.</li> </ul>	<ul style="list-style-type: none"> <li>Suggest alternative plans; outlining the positive features and drawbacks.</li> <li>Evaluate appearance and function against original criteria.</li> </ul>	<ul style="list-style-type: none"> <li>Know which IT product would further enhance a specific product.</li> <li>Use knowledge to improve a made product by strengthening, stiffening or reinforcing.</li> <li>Use electrical systems correctly and accurately to enhance a given product.</li> </ul>



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<b>Food Technology</b>			
<b>Reception</b>	<b>Year 1</b>	<b>Year 2</b>	
<ul style="list-style-type: none"><li>• Be increasingly independent in meeting their own needs – washing hands.</li><li>• Begin to understand personal hygiene.</li><li>• Know where some foods come from.</li></ul>	<ul style="list-style-type: none"><li>• Cut food safely.</li><li>• Know where fruit and vegetables come from.</li><li>• Use basic food handling, hygiene practices and personal hygiene.</li></ul>	<ul style="list-style-type: none"><li>• Weigh ingredients to use in a recipe.</li><li>• Describe the ingredients used when making a dish or cake.</li><li>• Can talk about which food is healthy and which is not.</li><li>• Follow safe procedures for food safety and hygiene.</li></ul>	
<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>
<ul style="list-style-type: none"><li>• Describe how food ingredients come together.</li><li>• Weigh out ingredients and follow a given recipe to create a dish.</li><li>• Know when food is ready for harvesting.</li><li>• Demonstrate hygienic food preparation.</li></ul>	<ul style="list-style-type: none"><li>• Bring a creative element to the food product being designed.</li><li>• Know which season various foods are available for harvesting.</li><li>• Recognise safe practices in the kitchen and can identify hazards eg. Hazards when using an oven.</li></ul>	<ul style="list-style-type: none"><li>• Be both hygienic and safe in the kitchen.</li><li>• Know how to prepare a meal by collecting the ingredients in the first place.</li><li>• Weigh and measure accurately (timings, dry ingredients and liquids)</li></ul>	<ul style="list-style-type: none"><li>• Explain how food ingredients should be stored and give reasons.</li><li>• Work within a budget to create a meal.</li><li>• Understand the difference between a savoury and sweet dish.</li></ul>