

## Design & Technology Curriculum Map

### Design and Technology Curriculum Intent:

At Heather Avenue Infant School, we understand and recognise the needs of all our children and families, and in response offer a story rich, topic based curriculum, underpinned by the Early Years Foundation Stage or National Curriculum.

Design and Technology at Heather Avenue involves applying knowledge and skills when designing and making products. The activities undertaken will enable our children to consider the needs of individuals and society within a caring community. Undertaking design and technology activities in school will give our children opportunities to use a range of materials and processes, and to work independently or as part of a team. The activities undertaken at Heather Avenue Infant School will also reflect the children's local environment and support them in the wider world.

Our children learn through a design, make and evaluate process which allows them to share their ideas confidently and reflect on their own work, and also develop a knowledge and understanding of the correct vocabulary for each area (please see our curriculum map below for a more detailed overview).

We believe that each child should complete their time with us as an enthusiastic learner across all areas of a broad and balanced curriculum, ready for the next phase of their educational journey. We strive to prepare pupils for the opportunities, responsibilities and experiences of the next phase of their education and future life by giving them a wide range of real-life, memorable experiences.

### Design and Technology Curriculum Implementation:

All staff members are given training on our curriculum areas and how to effectively implement them; the majority of this is completed as part of our staff meetings and led by subject leaders, but also by relevant external providers. Teachers have a good understanding of the curriculum areas and their component parts (e.g. design, make, evaluate).

Our Curriculum maps are used to create medium term plans which show the sequence of learning and links to our class topics. Design & Technology is taught as a block of work, with links to the class topic, this ensures that learning is built on progressively allowing children to develop their knowledge and skills effectively, as well as giving time to use and apply their learning.

Design and Technology is taught in practical lessons across Reception and Key Stage 1. In Reception there are a variety of construction toys giving the children the opportunity to explore and create their own structures and talk about what they have made. Children start to use scissors which will help them to further develop their fine motor control going into Year 1. Children across the school are given the opportunity to design, make and evaluate lots of different topic based products throughout the year. They are able to create using clay, junk modelling and using levers. As well as designing and making, children have cooking sessions three times a term where they create a dish together which they can then eat in class or take home to enjoy. They are taught about where the food comes from and even have the chance to grow some of the food in our vegetable plots.

Teachers are adept at assessing children using their own professional knowledge via formative and summative assessments, assessments are recorded on Classroom Monitor and Tapestry. Children who require additional support are quickly identified and supported via differentiation / intervention. Those requiring extension are identified and mastery approaches used to further progress their learning.

Consistently high standards of teaching are implemented across the curriculum and can be seen via learning walks, book scrutiny and through discussions with children and staff. SLT and subject leaders play a pivotal role in monitoring this process. Our Local Advisory board and the Wensum Trust further monitor our provision. Subject leaders also play a crucial part in monitoring progress and offering support, through Classroom Monitor and by training to all staff, which is demonstrated in our SOAP (subject on a page) document.

### **Design and Technology Curriculum Impact:**

Children achieve well at Heather Avenue Infant School and leave with a solid foundation of knowledge in Design and Technology. This prepares them for their continued journey of learning as they move onto their next stage of education, in Key Stage 2. They have developed an interest in making, key skills to be able design and evaluate, hands on experiences, and a broad range of vocabulary.

Design and Technology Curriculum Map

	Skills	Knowledge	Topic Titles
<b>Rec</b>	<p>Explore different materials, using all their senses to investigate them (0-3)</p> <p>Manipulate and play with different materials (0-3)</p> <p>Use their imagination as they consider what they can do with different materials (0-3)</p> <p>Make simple models which express their ideas (0-3)</p> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make (3-4)</p> <p>Develop their own ideas and then decide which materials to use and express them (3-4)</p> <p>Join different materials and explore different textures (3-4)</p> <p>Explore, use and refine a variety of artistic</p>	<p>I can explore a range of sensory trays and use words to describe them (e.g. soft, lumpy, slimy, stiff, crunchy)</p> <p>I know how to manipulate materials by bending, folding, scrunching, cutting and more.</p> <p>I use a range of materials to create a self-portrait (e.g. paint, pens, scissors, glue, wool)</p> <p>I create models of vehicles by combining materials and know how they could move (e.g. folding paper plane to fly, cutting paper to make a helicopter, adding wheels to a construction car to make it move) I make puppets to retell stories</p>	<p>Autumn Term: Magical Me (Mini-Enterprise, create a Christmas decoration)</p> <p>Spring Term: Dinosaur Roar (Design and make a 3D dinosaur habitat) or To Infinity and Beyond (tbc) (alternating)</p> <p>Summer Term: Journeys and Teddy Bear Picnic (Design and make a vehicle to test)</p>

	<p>effects to express their ideas and feelings (Reception)</p> <p>Return to and build on their previous learning, refining ideas and developing their ability to represent them (Reception)</p> <p>Create collaboratively sharing ideas, resources and skills (Reception)</p> <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function (Early Learning Goal (ELG))</p> <p>Share their creations, explaining the process they have used (ELG)</p> <p>Make use of props and materials when role playing characters in narratives and stories (ELG)</p>		
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<p><b>Y1</b></p>	<p>Design</p> <p>Begin to design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Begin to generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Make</p> <p>Begin to select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing)</p> <p>Begin to select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>	<p>Cooking: I can use skills to prepare and cook food safely</p> <p>Design</p> <p>To know the properties of certain materials To know what a label is To understand what a product is</p> <p>Vocabulary</p> <p>Properties, materials, label, product, design criteria</p> <p>Make</p> <p>To know what cutting, shaping and joining is To measure and know why it is important To cut safely To know what levers and sliders are</p> <p>Vocabulary</p> <p>materials, safety, tools, card, scissors, measure, centimetre, cut, shape, technique, tear, fold, curl, bend, join, glue, hinge, combine, strengthen, prototype, reusable resources, lever, slider</p>	<p>Two year rolling programme of topic titles.</p> <p>Autumn: Muck, Mess and Mixtures (Mini-Enterprise, create a Christmas decoration) or Turn Back Time (Mini-Enterprise, create a Christmas decoration)</p> <p>Spring: Let's Go On a Super Safari (Create a 3D African Garden in a shoe box) or Jungle Fever (TBC)</p> <p>Summer: Get Set Go! (Create a School obstacle course with levers and sliders) or My Amazing Body (TBC)</p>
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<p>Evaluate</p> <p>Begin to explore and evaluate a range of existing products</p> <p>Begin to evaluate their ideas and products against design criteria</p> <p>Technical Knowledge</p> <p>Begin to build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>Begin to explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products</p>	<p>Evaluate</p> <p>To know what a consumer is</p> <p>To know what improvement means</p> <p>To know what suitable means</p> <p>Vocabulary</p> <p>Intended consumer, suitability, improvement</p>	
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<p><b>Y2</b></p>	<p>Design</p> <p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Make</p> <p>Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing)</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>	<p>Cooking: I can use skills to prepare and cook food safely</p> <p>Design</p> <p>To know the properties of certain materials  To know what a label is and why it is useful  To understand what a product is  To understand why a design criteria is used</p> <p>Vocabulary</p> <p>Properties, materials, label, product, design criteria</p> <p>Make</p> <p>To know what cutting, shaping and joining is  To measure and know why it is important  To cut safely  To know what levers and sliders are  To know what reusable resources are  To know what a prototype is</p> <p>Vocabulary</p> <p>materials, safety, tools, card, scissors, measure, centimetre, cut, shape, technique, tear, fold, curl, bend, join, glue, hinge, combine, strengthen, prototype, reusable</p>	<p>Two year rolling programme of topic titles</p> <p>Autumn: Muck, Mess and Mixtures (Mini-Enterprise, create a Christmas decoration) or Turn Back Time (Mini-Enterprise, create a Christmas decoration)</p> <p>Spring: Let's Go On a Super Safari (Create a 3D African Garden in a shoe box) or Jungle Fever (TBC)</p> <p>Summer: Get Set Go! (Create a School obstacle course with levers and sliders) or My Amazing Body (TBC)</p>
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	resources, lever, slider, axles, wheels	
Evaluate	Evaluate	
Explore and evaluate a range of existing products	To know what an intended consumer is To know what improvement means To know what suitability is	
Evaluate their ideas and products against design criteria	To know what a prototype is	
	Vocabulary	
	Intended consumer, suitability, improvement, prototype	
Technical Knowledge		
Build structures, exploring how they can be made stronger, stiffer and more stable		
Explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products		