

Design and Technology Curriculum - Intent

The aim of our Design and Technology curriculum is to give our pupils the opportunities to master key practical skills through designing and making a range of different products for a specific purpose. Through designing and making products that solve real and relevant problems within a variety of contexts, pupils develop an understanding of how subjects and specific skills are linked to future jobs (e.g. automotive engineer, carpenter, theme park designer, architect). By evaluating past and present design and technology they develop a critical understanding of its impact on daily life and the wider world.

Much of the Design and Technology Curriculum is taught through cross-curricular topics that ensure coverage of the National Curriculum objectives with a particular focus on skills. Oracy is a key focus, to develop Literacy skills across the curriculum. Our communication rich DT curriculum enables pupils to discuss their ideas at the design stage, and also to evaluate their product and identify ways to improve it next time. Topics are reviewed on a yearly basis to ensure relevance for the current cohort, and to encourage reflective practise. There is no set formula for the Design and Technology curriculum, and there is flexibility in the long term plan to reflect the needs and cultural capital of the pupils.

Key Skills Progression

Year Group	Design and make	Evaluate	Technical Knowledge	Oracy
EYFS	<p>Expressive arts and design</p> <p>3- 4 year olds</p> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures.</p> <p>Reception</p> <p>Explore, use and refine a variety of artistic effects to express their ideas and feelings. Return to and build on their previous learning, refining ideas and developing their ability to represent them. Create collaboratively, sharing ideas, resources and skills</p> <p>ELG: Creating with Materials</p> <p>Children at the expected level of development will: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; Share their creations, explaining the process they have used; Make use of props and materials when role playing characters in narratives and stories</p>			<p>Communication and Language</p> <p>3 & 4 year olds</p> <p>Use a wider range of vocabulary. Understand a question or instruction that has two parts, such as: "Get your coat and wait at the door". Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" Use longer sentences of four to six words. Be able to express a point of view and to debate when they disagree with an adult or a friend, using words as well as actions.</p> <p>Reception</p> <p>Understand how to listen carefully and why listening is important. Learn new vocabulary. Use new vocabulary through the day Ask questions to find out more and to check they understand what has been said to them Articulate their ideas and thoughts in well-formed sentences Connect one idea or action to another using a range of connectives Describe events in some detail Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.</p>

	<p>Physical development – fine motor skills</p> <p>Reception Children in Reception will be learning to develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools are pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons.</p> <p>ELG Children at the expected level of development will: Hold a pencil effectively in preparation for fluent writing, using a tripod grip in almost all cases. Use a range of small tools including scissors, paintbrushes and cutlery Begins to show accuracy and care when drawing</p>			<p>ELG: Listening, Attention and Understanding Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions; Make comments about what they have heard and ask questions to clarify their understanding; Hold conversation when engaged in back-and-forth exchanges with their teacher and peers.</p> <p>ELG: Speaking Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary; Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, non-fiction, rhymes and poems when appropriate; Express their ideas and feelings about their experiences using full sentences, including use of past, present and future tenses and making use of conjunctions, with modelling and support from their teacher.</p> <p>tools, paintbrush, scissors, knives, forks, spoons</p>
Year 1	<p>I can design a product for a purpose/ to solve a real life problem I can make a design through talking and drawing, I can build structures, I can explore and use mechanisms (for example,</p>	<p>I can explore and talk about a range of existing products, saying what works well. I can talk about a product I have made, saying what does/ does not work well</p>	<p>I can name and use a variety of tools and equipment to perform practical tasks</p> <ul style="list-style-type: none"> • Cutting • Shaping • Joining • Finishing 	<p>(from Key Progression Skills for Writing)</p> <p>Talking to others</p> <ul style="list-style-type: none"> • Share feelings • Talk in an audible voice that is understood by others • Keep in mind the listener <p>Talking with others</p> <ul style="list-style-type: none"> • Engage with the speaker, listening attentively • Engage with others, taking turns

	levers, sliders, wheels and axles)		<p>I can choose and use a wide range of materials and components:</p> <ul style="list-style-type: none"> • construction materials • textiles • ingredients 	<p>Talking imaginatively</p> <ul style="list-style-type: none"> • Play imaginatively, acting out characters using everyday language • Notice different ways of speaking • Experiment with ways to express meaning <p>Vocabulary</p> <ul style="list-style-type: none"> • Use every day/key words <p>Product, cutting, shaping, joining, finishing, design, mechanism, levers, sliders, wheels and axles</p>
Year 2	<p>I can design and develop a product for a purpose/ to solve a real life problem</p> <p>I can make a design through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>I can build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>I can explore and use mechanisms (for example, levers, sliders, wheels and</p>	<p>I can explore and evaluate a range of existing products, saying what I think works well</p> <p>I can talk about a product I have made, saying what does/ does not work well and suggest ways to improve it next time</p>	<p>I can name and use a variety of tools and equipment to perform practical tasks, and can choose the best tools for the task giving reasons for my answer.</p> <ul style="list-style-type: none"> • Cutting • Shaping • Joining • Finishing <p>I can choose, use and talk about the characteristics of a wide range of materials and components</p>	<p>(from Key Progression Skills for Writing)</p> <p>Talking to others</p> <ul style="list-style-type: none"> • Talk about experiences • Vary talk to engage listeners • Choose words and gestures for different situations <p>Talking with others</p> <ul style="list-style-type: none"> • Listen and respond to a speaker • Make helpful contributions in a discussion <p>Talking imaginatively</p> <ul style="list-style-type: none"> • Adapt speech and gestures for different roles and scenarios <p>Vocabulary</p> <ul style="list-style-type: none"> • Use some adventurous words <p>Template, mock up, evaluate, characteristics</p>

	axles), and choose a mechanism for a specific task		<ul style="list-style-type: none">• construction materials• textiles• ingredients	
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