



Curriculum Progression Map

Design Technology



Early Years Foundation Stage	Key Stage One
<p>Personal, Social and Emotional Development Reception</p> <ul style="list-style-type: none"> Progress towards a more fluent style of moving, with developing control and grace. Develop their small motor skills so that they can use a range of tools competently, safely, and confidently. Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. <p>Early Learning Goal Fine Motor Skill</p> <ul style="list-style-type: none"> Use a range of small tools, including scissors, paintbrushes, and cutlery. 	<p>National Curriculum Programme of Study When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none"> design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology <p>Make</p> <ul style="list-style-type: none"> select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics <p>Evaluate</p> <ul style="list-style-type: none"> explore and evaluate a range of existing products evaluate their ideas and products against design criteria 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. <p>Cooking and Nutrition</p> <ul style="list-style-type: none"> use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.
<p>Reception</p> <ul style="list-style-type: none"> 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>Early Learning Goal Creating with Material</p> <ul style="list-style-type: none"> 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. 	<p>Key Stage Two</p> <p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none"> use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make</p> <ul style="list-style-type: none"> Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities <p>Evaluate</p> <ul style="list-style-type: none"> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world <p>Technical knowledge</p> <ul style="list-style-type: none"> apply their understanding of how to strengthen, stiffen and reinforce more complex structures understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products. <p>Cooking and Nutrition</p> <ul style="list-style-type: none"> understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	<p>Know how to select appropriate resources when designing</p>	<p>Know what they are making and who they are making it for</p> <p>Know that we can use existing products to help us with our own designing and making</p> <p>Know how to generate ideas through talk and drawing based on their own experiences</p> <p>Know how to plan the process needed to create an end product</p>	<p>Know what they are making, identify who for and what the product is designed for, based on design criteria</p> <p>Know that we can look at existing products to help develop an appreciation of what's needed for a successful end product</p> <p>Know how their product will work and how it will impact intended users</p> <p>Know how to model and plan own ideas and share these with others - talking, drawing, mock-ups, models, ICT</p>	<p>Know that a design criteria is needed for a successful end product</p> <p>Know how to generate several possible ideas/designs and draw a labelled designed of end product</p> <p>Know how to make design decisions that take account of the availability of resources</p> <p>Know how to describe the purpose of their products</p>	<p>Know that a design criteria can be based on research</p> <p>Know how to develop their design ideas through detailed labelled drawings and creating prototypes where necessary</p> <p>Know that there is a need to develop a clear idea of the making process by creating a detailed plan including materials and equipment</p> <p>Know how to explain how particular parts of their products work</p>	<p>Know how to use research to develop a criteria for a successful end product</p> <p>Know how to develop their design ideas through detailed labelled drawings, cross sectional diagrams and creating prototypes where necessary</p> <p>Know that there is need to develop a clear idea of the making process by creating a detailed plan including materials and equipment</p> <p>Know how to describe the purpose of their products and indicate the design features of their products that will appeal to intended users</p>	<p>Know how to research and evaluate existing design ideas and end products to help create their own detailed design specification with reference to intended audience and purpose</p> <p>Know how to explore, develop and communicate their design proposals by modelling their ideas in a variety of ways (annotated sketches, cross sectional and exploded diagrams, pattern pieces and computer-aided design)</p> <p>Know how to plan the order of their work, choosing and recording using a detailed and chronological plan the appropriate materials, tools and techniques need to produce a quality end product</p>

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Make	<p>Know that materials can be joined using tools and techniques.</p>	<p>Know how to select tools to perform practical tasks</p> <p>Know which materials to select for intended purpose</p> <p>Know how to measure, mark out, cut and shape a range of materials</p> <p>Know how to assemble, join and combine materials and components using a some simple methods</p> <p>Know how to use some simple tools safely</p>	<p>Know how to select from a range of tools and equipment for intended purpose</p> <p>Know how to select from a range of materials and components according to characteristics</p> <p>Know how to select and use tools and equipment to cut, shape, join and finish to create an end product</p>	<p>Know how to select appropriate tools and equipment from a wider range for making their product</p> <p>Know how to select materials and components suitable for the task, explaining why they have been chosen according to their characteristics</p> <p>Know how to measure, mark out, cut and shape materials and components and assemble, join and combine materials and components with some accuracy</p> <p>Know how to work safely using a range of simple tools</p>	<p>Know how to select suitable tools and equipment to perform practical tasks with accuracy</p> <p>Know how to use a wider range of materials and components than KSI, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components.</p>	<p>Know how to select suitable tools and equipment to perform practical tasks with accuracy and explain what the tool is used for</p> <p>Know how to select materials and components suitable for the task according to functional properties and aesthetic qualities</p> <p>Know how to work safely using a wider range of tools</p>	<p>Know how to select tools and equipment suitable for the task and explain their choice of tools and equipment in relation to the skills and techniques they will be using</p> <p>Know how to explain their choice of materials and components according to functional properties and aesthetic qualities.</p> <p>Know how to use appropriate tools and materials with precision</p>

Evaluate

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Know how to adapt their work if necessary</p>	<p>Know how well their final products works in relation to the intended purpose and audience</p> <p>Know what was successful and consider what they could do to improve their final product</p> <p>Know why and how they made their product including their likes and dislikes</p>	<p>Know how to evaluate their final product against existing products and whether it meets the intended purpose and expectations of the audience</p> <p>Know what was successful and what changes they may make and why to improve their final product</p> <p>Know the process taken in designing and making the final product including their likes and dislikes of their own ideas</p>	<p>Know how to evaluate their product against the original design criteria during the making process and at the end</p> <p>Know the process taken in designing and making the final product including their likes and dislikes of their own ideas</p> <p>Know how to evaluate their end products by carrying out tests</p>	<p>Know how to evaluate their product against the original design criteria during the making process at appropriate times</p> <p>Know how to give explanations of the whole process, evaluate their own ideas/skills and give areas for development in own learning</p> <p>Know how to evaluate their end products by carrying out appropriate tests</p>	<p>Know how to evaluate their own products and start to seek peer evaluation against the original design criteria during the making process at appropriate times</p> <p>Know the strengths of their product and possible changes they might make and identify the impact it will have on their product, throughout the making process</p> <p>Know how to give detailed explanations of the whole process, evaluate their own ideas/skills and give areas for development in own learning</p>	<p>Know how to evaluate their own products and seek peer evaluation against the original design criteria during the making process at appropriate times</p> <p>Know how to make the identified changes from ongoing evaluation methods needed to improve their product throughout the making stage</p> <p>Know why there is a need to evaluate their end products and know how to carry this out with appropriate tests and suggests methods to complete this</p>

Food	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>Know that eating well contributes to good health.</p> <p>Know how to stir, mix and pour ingredients.</p>	<p>Know what constitutes healthy food and foods that are treats</p> <p>Know where some food comes from and how it is produced/grown</p> <p>Know how to use simple tools to prepare food safely- Small table knife for spreading</p>	<p>Know that there is a need for a variety of food to have a healthy diet</p> <p>Know that all food has to be farmed, grown or caught</p> <p>Know and use the basic principles of a healthy and varied diet to prepare dishes</p> <p>Know how to use simple tools to prepare food safely- Bridge knife technique for cutting soft foods</p>	<p>Know how food can be sorted into different food groups and name a food from each group</p> <p>Know how a food has been produced and give examples of food grown, caught or farmed across the world</p> <p>Know how to use simple tools to prepare food safely- Bridge knife technique for cutting harder foods Peel soft vegetables</p>	<p>Know what makes a healthy and balanced diet and that different foods and drinks provide different substances that the body needs</p> <p>Know that some food is grown/produced seasonally and explore the advantages of eating seasonal and locally produced food</p> <p>Know how to use cutting tools to prepare food safely Claw knife technique for soft food Peel hard vegetables</p>	<p>Know the main food groups and the nutrients that are important for health. give examples of healthy balanced diets.</p> <p>Know how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable/tasty to eat Know that the seasons affect the food available</p> <p>Know how to use cutting tools to prepare food safely Claw knife technique for hard food Grate soft foods</p>	<p>Know what is a balanced diet and the nutrients that are important for good health to plan a series of meals that incorporate this understanding</p> <p>Know the advantages and disadvantages of food preservation and give examples of ways this is achieved</p> <p>Know how to prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p>Know how to use cutting tools to prepare food safely Fine chopping technique Grate hard foods</p>

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Textiles	<p>Know how to use the tripod grip - threading</p> <p>Know that we can combine 2 different materials to create an end piece</p>	<p>Know how to use the tripod grip-weaving</p> <p>Know how to combine 2 different materials to create an end piece</p>	<p>Know how to thread a needle.</p> <p>Know how to use a running stitch.</p> <p>Know how to stitch two pieces of fabric using a running stitch.</p>	<p>Know how to thread a needle and be able to do this independently.</p> <p>Know how to combine 2 pieces of material and apply decoration using beads, buttons, feathers etc.</p>	<p>Know how to use a running and over stitch, and apply decoration using needle and thread: buttons, beads, feathers etc.</p> <p>Know that we can use a number of different stitches creatively to produce different patterns and textures, experiment with these.</p>	<p>Know how to demonstrate combining techniques to produce an end piece.</p> <p>Know how to use a number of different stitches creatively to produce different patterns and textures.</p>	<p>Know how to design, plan and decorate a fabric piece.</p> <p>Know how to experiment with a variety of techniques for purpose and effect.</p> <p>Know how to use a number of different stitches creatively to produce different patterns and textures.</p>
Construction	<p>Start to build structures, joining components together.</p>	<p>Begin to build structures and explore how they can be made stronger, stiffer and more stable</p>	<p>Build structures and explore and start to explain how they can be made stronger, stiffer and more stable</p>	<p>Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable</p>	<p>Build structures and explain ways to strengthen using a variety of materials. Explore how diagonal struts can strengthen frames</p>	<p>With support when building structures use a wide range of methods to strengthen, stiffen and reinforce complex 3D structures and use them accurately and appropriately- triangulation, diagonal struts, cross bars, jinx joints</p>	<p>When building structures use a wide range of methods to strengthen, stiffen and reinforce complex 3D structures and use them accurately and appropriately- triangulation, diagonal struts, cross bars, jinx joints</p>
Mechanics	<p>Look at simple hinges, wheels, and axles.</p>	<p>Know how to use simple mechanisms with support. (split pin lever)</p> <p>lever, slot, hinge</p>	<p>Know how to use winding mechanisms with some independence</p> <p>axle, wheel, winding mechanism</p>	<p>Know that mechanical systems such as levers and linkages can create movement.</p> <p>linkage, fixed pivot, loose pivot</p>	<p>Know how to produce models that incorporate mechanical systems such as levers, linkages or pneumatic systems to create movement with increasing independence.</p> <p>pulley, gear</p>	<p>Know how mechanical systems such as cams create movement.</p> <p>cam, rotary</p>	<p>Know how cams, pulleys or gears create movement, evidencing a range of designing and making skills to meet design criteria</p> <p>pneumatics, force, prototype</p>

Electrical Control	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				Know how to create a simple electrical system incorporating a light	Know how to create an incomplete electrical circuit incorporating a motor and switch	Know how to create a functional series circuit, incorporating a buzzer and switch	Know how to create a functional series circuit, incorporating a motor, switch and buzzer.