



DT Skills Progression Grid

Early Years Outcome	KS1 National Curriculum Aims	KS2 National Curriculum Aims
<p>The main Early Years Outcomes covered in Art are:</p> <ul style="list-style-type: none"> • Children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. (EA&D – EMM ELG) • Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories. (EA&D- BI ELG) • Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. (UTT – T ELG) 	<p>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>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 	<p>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, school, leisure, culture, enterprise, industry and the wider environment]. 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

	<p>materials, textiles and ingredients, according to their characteristics</p> <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 <p>Technical knowledge</p> <ul style="list-style-type: none"> • 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> <p>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. Pupils should be taught to:</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>properties and aesthetic qualities</p> <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> <p>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. Pupils should be taught to:</p>
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		<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.
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Designing			
Early Years	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>To understand that equipment and tools have to be used safely.</p> <p>To show skills in making toys work by pressing parts or lifting flaps to achieve effects.</p> <p>To handle tools, objects, construction and malleable materials safely and with increasing control.</p> <p>To handle equipment and tools effectively, including pencils for writing.</p> <p>To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture.</p>	<p>Use simple design criteria; state what their products are, who and what they are for and how they will work.</p> <p>Generate ideas using their own experiences and existing products.</p> <p>Use talk, drawing, templates, mock-ups and, where appropriate, computers.</p>	<p>Gather information about user needs.</p> <p>Develop their own design criteria.</p> <p>Describe the user, purpose and design features of their products and explain how they will work.</p> <p>Generate realistic ideas based on user needs.</p> <p>Use a range of drawing skills, discussion, prototypes, pattern pieces and computer-aided design.</p>	<p>Carry out research.</p> <p>Develop a simple design specification.</p> <p>Describe the user, purpose and design features of their products and explain how they will work.</p> <p>Generate innovative ideas drawing on research.</p> <p>Use a range of drawing skills, discussion, prototypes, pattern pieces and computer-aided design.</p>

<p>To use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music dance, role play and stories.</p>			
Making			
Early Years	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>To choose particular colours to use for a purpose</p> <p>To manipulate materials to achieve a planned effect</p> <p>To use what they have learnt about media and materials in original ways, thinking about uses and purposes</p> <p>They are confident to speak in a familiar group</p> <p>They are confident to speak in a familiar group, will talk about their ideas, and will choose the resources they need for their chosen activities.</p> <p>To construct with a purpose in</p>	<p>Plan by suggesting what to do next.</p> <p>Select from a range of tools, equipment, materials and components.</p> <p>Follow procedures for safety and hygiene.</p> <p>Measure, mark out, cut, shape, assemble, join, combine and finish a range of materials and components.</p>	<p>Order the main stages of making.</p> <p>Select suitable tools, equipment, materials and components and explain their choices.</p> <p>Follow procedures for safety and hygiene.</p> <p>Use a wider range of materials and components.</p> <p>Measure, mark out, cut, shape, assemble, join, combine and finish with some accuracy.</p>	<p>Formulate lists of resources and step-by-step plans.</p> <p>Select suitable tools, equipment, materials and components and explain their choices.</p> <p>Follow procedures for safety and hygiene.</p> <p>Use a wider range of materials and components.</p> <p>Measure, mark out, cut, shape, assemble, join, combine and finish with accuracy.</p>

<p>mind, using a variety of resources</p> <p>To use simple tools and techniques competently and appropriately</p> <p>To select tools and techniques needed to shape, assemble and join materials they are using.</p> <p>To handle tools, objects, construction and malleable materials safely and with increasing control.</p> <p>To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture form and function.</p>			
Evaluating			
Early Years	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>To select appropriate resources and adapt work where necessary.</p> <p>Plan – do - review</p>	<p>Make simple judgements about their products and ideas against design criteria.</p> <p>Explore who and what products are for, how they work and are used, what materials they are made from and what they like and dislike about them.</p>	<p>Evaluate their ideas and products against their design criteria.</p> <p>Investigate how well products have been designed and made, whether they are fit for purpose and meet user needs.</p> <p>Why materials have been chosen, the methods of construction used and how well they work.</p>	<p>Identify strengths and areas to develop in their ideas and products against their design specification.</p> <p>Consider the views of others to make improvements.</p> <p>Investigate how well products have been designed and made, whether they are fit for purpose and meet user needs.</p>

		Know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.	Why materials have been chosen, the methods of construction used, how well they work, and how innovative and sustainable they are. Know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products
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Technical Knowledge

Early Years	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>To use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology.</p> <p>To show skills in making toys work by pressing parts or lifting flaps to achieve effects.</p>	<p>Know about the simple working characteristics of materials and components, the movement of simple mechanisms, how freestanding structures can be made stronger, stiffer and more stable.</p> <p>Use the correct technical vocabulary.</p>	<p>Know that materials have functional and aesthetic qualities.</p> <p>That systems have an input, process and output.</p> <p>How to program a computer to control their products.</p> <p>How to make strong, stiff shell structures.</p> <p>Use the correct technical vocabulary.</p>	<p>Know that materials have functional and aesthetic qualities.</p> <p>That systems have an input, process and output.</p> <p>How to program a computer to control and monitor their products.</p> <p>How to reinforce and strengthen a framework.</p> <p>Use the correct technical vocabulary.</p>

Cooking and Nutrition

Early Years	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>Use what they have learnt about media and materials in original ways thinking about uses and purposes.</p> <p>Safely use and explore a variety of</p>	<p>Know that food comes from plants or animals and that it is farmed or caught.</p> <p>Know how to prepare simple dishes safely and hygienically without a</p>	<p>Know that food is grown, reared and caught in the UK, Europe and the wider world.</p> <p>Know how to prepare a variety of dishes safely and hygienically.</p>	<p>Know that food is grown, reared and caught in the UK, Europe and the wider world.</p> <p>That seasons may affect the food available.</p>

<p>tools and techniques, experimenting with form and function.</p>	<p>heat source, name and sort foods into groups.</p> <p>Know that everyone should eat at least five portions of fruit and vegetables a day.</p>	<p>That a healthy diet is made from a variety and balance of different food and drink.</p> <p>That food and drink are needed to provide energy for the body.</p>	<p>How food is processed into ingredients.</p> <p>Know how to prepare and cook a variety of dishes safely and hygienically using, where appropriate, a heat source.</p> <p>That different food and drink contain nutrients, water and fibre that are needed for health.</p>
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