



## Progression of skills in DT

Skills:	EYFS	Key Stage 1	Key Stage 2 - Year 3 and 4	Key Stage 2 - Year 5 and 6
<b>Designing: Understanding contexts, users and purposes</b>	In EYFS: <ul style="list-style-type: none"> <li>• use what they have learnt about media and materials and think about uses and purposes.</li> <li>• use a range of materials when creating</li> </ul>	Across KS1 pupils should: <ul style="list-style-type: none"> <li>• work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment.</li> <li>• state what products they are designing and making.</li> <li>• say whether their products are for themselves or other users.</li> <li>• describe what their products are for.</li> <li>• say how their products will work.</li> <li>• say how they will make their products suitable for their intended users.</li> <li>• use simple design criteria to help develop their ideas.</li> </ul>	In Lower Key Stage 2 pupils should: <ul style="list-style-type: none"> <li>• work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment.</li> <li>• describe the purpose of their products.</li> <li>• indicate the design features of their products that will appeal to intended users.</li> <li>• explain how particular parts of their products work.</li> <li>• gather information about the needs and wants of particular individuals and groups.</li> <li>• develop their own design criteria and use these to inform their ideas.</li> </ul>	In Upper Key Stage 2 pupils should: <ul style="list-style-type: none"> <li>• work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment.</li> <li>• describe the purpose of their products.</li> <li>• indicate the design features of their products that will appeal to intended users.</li> <li>• explain how particular parts of their products work.</li> <li>• carry out research, using surveys, interviews, questionnaires and web-based resources.</li> <li>• identify the needs, wants, preferences and values of particular individuals and groups.</li> <li>• develop a simple design specification to guide their thinking</li> </ul>
<b>Designing: Generating, developing, modelling and communicating ideas</b>	In EYFS: <ul style="list-style-type: none"> <li>• confident to speak in a familiar group about their ideas.</li> <li>• explain what they want to do.</li> </ul>	Across KS1 pupils should: <ul style="list-style-type: none"> <li>• generate ideas by drawing on their own experiences.</li> <li>• use knowledge of existing products to help come up with ideas.</li> <li>• develop and communicate ideas by talking and drawing.</li> <li>• model ideas by exploring materials, components and construction kits and by making templates and mockups.</li> <li>• use information and communication technology, where</li> </ul>	In Lower Key Stage 2 pupils should: <ul style="list-style-type: none"> <li>• share and clarify ideas through discussion.</li> <li>• model their ideas using prototypes and pattern pieces.</li> <li>• use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas.</li> <li>• use computer-aided design to develop and communicate their ideas.</li> </ul>	In Upper Key Stage 2 pupils should: <ul style="list-style-type: none"> <li>• share and clarify ideas through discussion.</li> <li>• model their ideas using prototypes and pattern pieces.</li> <li>• use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas.</li> <li>• use computer-aided design to develop and communicate their ideas.</li> </ul>

		appropriate, to develop and communicate their ideas.	<ul style="list-style-type: none"> <li>• generate realistic ideas, focusing on the needs of the user.</li> <li>• make design decisions that take account of the availability of resources.</li> </ul>	<ul style="list-style-type: none"> <li>• generate innovative ideas, drawing on research.</li> <li>• make design decisions, taking account of constraints such as time, resources and cost.</li> </ul>
<b>Making: Planning</b>	<p>In EYFS:</p> <ul style="list-style-type: none"> <li>• choose the resources they need for their chosen activity.</li> <li>• know there are different tools to cut things.</li> </ul>	<p>Across KS1 pupils should:</p> <ul style="list-style-type: none"> <li>• plan by suggesting what to do next.</li> <li>• select from a range of tools and equipment, explaining their choices.</li> <li>• select from a range of materials and components according to their characteristics.</li> </ul>	<p>In Lower Key Stage 2 pupils should:</p> <ul style="list-style-type: none"> <li>• select tools and equipment suitable for the task.</li> <li>• explain their choice of tools and equipment in relation to the skills and techniques they will be using.</li> <li>• select materials and components suitable for the task.</li> <li>• explain their choice of materials and components according to functional properties and aesthetic qualities.</li> <li>• order the main stages of making.</li> </ul>	<p>In Upper Key Stage 2 pupils should:</p> <ul style="list-style-type: none"> <li>• select tools and equipment suitable for the task.</li> <li>• explain their choice of tools and equipment in relation to the skills and techniques they will be using.</li> <li>• select materials and components suitable for the task.</li> <li>• explain their choice of materials and components according to functional properties and aesthetic qualities.</li> <li>• produce appropriate lists of tools, equipment and materials that they need.</li> <li>• formulate step-by-step plans as a guide to making.</li> </ul>
<b>Making: Practical skills and techniques</b>	<p>In EYFS:</p> <ul style="list-style-type: none"> <li>• show good control and coordination in large and small movements.</li> <li>• know there are different ways to join things.</li> <li>• handle equipment and tools effectively.</li> <li>• discuss and solve problems as they arise.</li> </ul>	<p>Across KS1 pupils should:</p> <ul style="list-style-type: none"> <li>• follow procedures for safety and hygiene.</li> <li>• use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components.</li> <li>• measure, mark out, cut and shape materials and components.</li> <li>• assemble, join and combine materials and components.</li> <li>• use finishing techniques, including those from art and design.</li> </ul>	<p>In Lower Key Stage 2 pupils should:</p> <ul style="list-style-type: none"> <li>• follow procedures for safety and hygiene.</li> <li>• use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components.</li> <li>• measure, mark out, cut and shape materials and components with some accuracy.</li> <li>• assemble, join and combine materials and components with some accuracy.</li> </ul>	<p>In Upper Key Stage 2 pupils should:</p> <ul style="list-style-type: none"> <li>• follow procedures for safety and hygiene.</li> <li>• use a wider range of materials and components than KS1, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components.</li> <li>• accurately measure, mark out, cut and shape materials and components.</li> <li>• accurately assemble, join and combine materials and components.</li> <li>• accurately apply a range of finishing techniques, including those from art and design.</li> </ul>

			<ul style="list-style-type: none"> <li>• apply a range of finishing techniques, including those from art and design, with some accuracy.</li> </ul>	<ul style="list-style-type: none"> <li>• use techniques that involve a number of steps.</li> <li>• demonstrate resourcefulness when tackling practical problems.</li> </ul>
<b>Evaluating: Own ideas and products</b>	<p>In EYFS:</p> <ul style="list-style-type: none"> <li>• talk about their work</li> <li>• talk about their friends work</li> </ul>	<p>Across KS1 pupils should:</p> <ul style="list-style-type: none"> <li>• talk about their design ideas and what they are making.</li> <li>• make simple judgements about their products and ideas against design criteria.</li> <li>• suggest how their products could be improved.</li> </ul>	<p>In Lower Key Stage 2 pupils should:</p> <ul style="list-style-type: none"> <li>• identify the strengths and areas for development in their ideas and products.</li> <li>• consider the views of others, including intended users, to improve their work.</li> <li>• refer to their design criteria as they design and make.</li> <li>• use their design criteria to evaluate their completed products.</li> </ul>	<p>In Upper Key Stage 2 pupils should:</p> <ul style="list-style-type: none"> <li>• identify the strengths and areas for development in their ideas and products.</li> <li>• consider the views of others, including intended users, to improve their work.</li> <li>• critically evaluate the quality of the design, manufacture and fitness for the purpose of their products as they design and make.</li> <li>• evaluate their ideas and products against their original design specification.</li> </ul>
<b>Evaluating: Existing Products</b>		<p>Across KS1 pupils should explore:</p> <ul style="list-style-type: none"> <li>• what products are.</li> <li>• who products are for.</li> <li>• what products are for.</li> <li>• how products work.</li> <li>• how products are used.</li> <li>• where products might be used.</li> <li>• what materials products are made from.</li> <li>• what they like and dislike about products.</li> </ul>	<p>In Lower Key Stage 2 pupils should investigate and analyse:</p> <ul style="list-style-type: none"> <li>• how well products have been designed.</li> <li>• how well products have been made.</li> <li>• why materials have been chosen.</li> <li>• what methods of construction have been used</li> <li>• how well products work.</li> <li>• how well products achieve their purposes.</li> <li>• how well products meet user needs and wants.</li> <li>• who designed and made the products.</li> <li>• where products were designed and made.</li> <li>• when products were designed and made.</li> <li>• whether products can be recycled or reused.</li> </ul>	<p>In Upper Key Stage 2 pupils should investigate and analyse:</p> <ul style="list-style-type: none"> <li>• how well products have been designed.</li> <li>• how well products have been made.</li> <li>• why materials have been chosen.</li> <li>• what methods of construction have been used.</li> <li>• how well products work.</li> <li>• how well products achieve their purposes.</li> <li>• how well products meet user needs and wants.</li> <li>• how much products cost to make.</li> <li>• how innovative products are.</li> <li>• how sustainable the materials in products are.</li> <li>• what impact products have beyond their intended purpose.</li> </ul>

Evaluating: Key Events and Individuals		Not a requirement in KS1.	In Lower Key Stage 2 pupils should know: • about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.	In Lower Key Stage 2 pupils should know: • about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.
Technical Knowledge: Making Products Work	In EYFS: • explain which tools they are using. • describe how something works. • be able to name the tools they are using.	Across KS1 pupils should know: • about the simple working characteristics of materials and components. • about the movement of simple mechanisms such as levers, sliders, wheels and axles. • how freestanding structures can be made stronger, stiffer and more stable. • that a 3-D textiles product can be assembled from two identical fabric shapes. • that food ingredients should be combined according to their sensory characteristics. • the correct technical vocabulary for the projects they are undertaking.	In Lower Key Stage 2 pupils should know: • how to use learning from science to help design and make products that work. • how to use learning from mathematics to help design and make products that work. • that materials have both functional properties and aesthetic qualities. • that materials can be combined and mixed to create more useful characteristics. • that mechanical and electrical systems have an input, process and output. • the correct technical vocabulary for the projects they are undertaking. • how mechanical systems such as levers and linkages or pneumatic systems create movement. • how simple electrical circuits and components can be used to create functional products. • how to program a computer to control their products. • how to make strong, stiff shell structures. • that a single fabric shape can be used to make a 3D textiles product. • that food ingredients can be fresh, pre-cooked and processed.	In Upper Key Stage 2 pupils should know: • how to use learning from science to help design and make products that work. • how to use learning from mathematics to help design and make products that work. • that materials have both functional properties and aesthetic qualities. • that materials can be combined and mixed to create more useful characteristics. • that mechanical and electrical systems have an input, process and output. • the correct technical vocabulary for the projects they are undertaking. • how mechanical systems such as cams or pulleys or gears create movement. • how more complex electrical circuits and components can be used to create functional products. • how to program a computer to monitor changes in the environment and control their products. • how to reinforce and strengthen a 3D framework. • that a 3D textiles product can be made from a combination of fabric shapes. • that a recipe can be adapted by adding or substituting one or more ingredients.

<p><b>Cooking and Nutrition:</b> Where food comes from</p>	<p>In EYFS:</p> <ul style="list-style-type: none"> <li>• explore food products by tasting different food and vegetables.</li> <li>• grow plants from seeds.</li> </ul>	<p>Across KS1 pupils should know:</p> <ul style="list-style-type: none"> <li>• that all food comes from plants or animals.</li> <li>• that food has to be farmed, grown elsewhere (e.g. home) or caught.</li> </ul>	<p>In Lower Key Stage 2 pupils should know:</p> <ul style="list-style-type: none"> <li>• that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</li> </ul>	<p>In Upper Key Stage 2 pupils should know:</p> <ul style="list-style-type: none"> <li>• that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</li> <li>• that seasons may affect the food available.</li> <li>• how food is processed into ingredients that can be eaten or used in cooking.</li> </ul>
<p><b>Cooking and Nutrition:</b> Food preparation, cooking and nutrition</p>	<p>In EYFS:</p> <ul style="list-style-type: none"> <li>• stir, spread, knead, peeling, cut, grate, wash, roll a range of food and ingredients.</li> <li>• begin to work safely and hygienically.</li> <li>• begin to think and talk about healthy food.</li> </ul>	<p>Across KS1 pupils should know:</p> <ul style="list-style-type: none"> <li>• how to name and sort foods into the five groups in 'the eatwell plate'.</li> <li>• that everyone should eat at least five portions of fruit and vegetables every day.</li> <li>• how to prepare simple dishes safely and hygienically, without using a heat source.</li> <li>• how to use techniques such as cutting, peeling and grating.</li> </ul>	<p>In Lower Key Stage 2 pupils should know:</p> <ul style="list-style-type: none"> <li>• how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</li> <li>• how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>• that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'the eatwell plate'.</li> <li>• that to be active and healthy, food and drink are needed to provide energy for the body.</li> </ul>	<p>In Upper Key Stage 2 pupils should know:</p> <ul style="list-style-type: none"> <li>• how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</li> <li>• how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>• that recipes can be adapted to change the appearance, taste, texture and aroma.</li> <li>• that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.</li> </ul>