



Key Concepts	Key events and people	Research	Problem Solving	Design	Materials	Using tools	Structures	Mechanisms	Electronic systems	Computer control	Evaluating	Cooking and nutrition
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Key Concept	Year R	Y1	Y2	Y3	Y4	Y5	Y6
Key events and people				Understand how key events and individuals in D&T have helped shape the world	Understand how key events and individuals in D&T have helped shape the world	Understand how key events and individuals in D&T have helped shape the world	Understand how key events and individuals in D&T have helped shape the world
Research	Talk about products e.g. toys and how they move/work	To look at and describe features of familiar products	Explore and evaluate a range of existing products	Investigate and analyse a range of existing products Use research to develop a design criteria with support	Investigate and analyse a range of existing products Use research to develop a design criteria with support	Investigate, disassemble and evaluate a range of existing products Use research to develop a design criteria	Investigate, disassemble and evaluate a range of existing products Use research to develop a design criteria
Problem solving	Talk about solutions to problems	Offer suggestions for products that solve real and relevant problems within a variety of contexts, with support	Design and make products that solve real and relevant problems within a variety of contexts, with support	Design and make products that solve real and relevant problems within a variety of contexts (introduce a design brief) Solve problems as they occur when making products	Design and make products that solve real and relevant problems within a variety of contexts (design brief) Solve problems as they occur when making products	Design and make products that solve real and relevant problems within a variety of contexts (design brief) Solve problems as they occur when making products	Design and make products that solve real and relevant problems within a variety of contexts (design brief) Solve problems as they occur when making products

<p>Design</p>	<p>Children have opportunities for sharing their thoughts, ideas and feelings through a variety of activities</p>	<p>Children think of ideas to meet design criteria</p> <p>Children use pictures and labels to describe what they want to do</p> <p>Children consider and discuss how to make their product look appealing for themselves and others.</p>	<p>Children think of ideas to meet design criteria and plan what to do next based on what they know about materials and components.</p> <p>They can identify the purpose for what they intend to design.</p> <p>Children use models, labelled diagrams and words to describe their designs and how they will work.</p> <p>Children consider and discuss how to make their product look appealing for themselves and others.</p> <p>Where appropriate, they use ICT to aid their designs.</p>	<p>Children generate and discuss ideas and recognise that their ideas have to meet design criteria.</p> <p>They design products for a specific individual or group and aim to meet their needs.</p> <p>Children think about appropriate tools, equipment, materials, components and techniques to create a functional product.</p> <p>They clarify their ideas using annotated sketches, prototypes and computer-aided design. to communicate the details of their design.</p> <p>They consider how to make their product look appealing for the particular individual or group it is made for.</p>	<p>Children create design criteria that their product must achieve, with support.</p> <p>They design products for a specific individual or group and aim to meet their needs.</p> <p>Children think ahead about the order of their work, choosing appropriate tools, equipment, materials, components and techniques to create a functional product.</p> <p>They clarify their ideas using annotated sketches, prototypes and computer-aided design. to communicate the details of their design.</p> <p>They consider how to make their product look appealing for the particular individual or group it is made for.</p>	<p>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</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>They create detailed step-by-step plans</p>	<p>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</p> <p>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>They create detailed step-by-step plans</p>
<p>Materials</p>	<p>children to explore and play with a wide range of media and materials</p>	<p>use a wide range of materials and components, including construction materials, textiles and ingredients, with support</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>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>	<p>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>	<p>select from and use a wider range of materials and components, including construction materials (e.g. wood), textiles and ingredients, according to their functional properties and aesthetic qualities</p>	<p>select from and use a wider range of materials and components, including construction materials (e.g. wood), textiles and ingredients, according to their functional properties and aesthetic qualities</p>

<p>Using tools</p>	<p>They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function</p>	<p>use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], with support</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 wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p>	<p>select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>I measure and mark out before using tools</p>	<p>Select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately.</p> <p>My methods of working are precise so that products have a high quality finish.</p> <p>I measure using mm and then use scoring and folding to shape materials accurately with a focus on precision.</p>	<p>Select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately.</p> <p>My methods of working are precise so that products have a high quality finish.</p> <p>I make cuts accurately and reject pieces that are not accurate and improve my technique.</p> <p>I make very careful and precise measurements so that joins, holes and openings are in exactly the right place.</p>
<p>Structures</p>	<p>Children build structures using a wide range of materials e.g. construction kits, junk modelling, natural materials etc</p>	<p>build structures, exploring how they can be made stronger, stiffer and more stable, with support</p>	<p>build structures, exploring how they can be made stronger, stiffer and more stable</p>	<p>apply their understanding of how to strengthen and reinforce more complex structures</p> <p>Know that triangular structures are stronger than squares.</p> <p>Understand that a wide base is sturdy</p>	<p>apply their understanding of how to strengthen and reinforce more complex structures</p> <p>Know that triangular structures are stronger than squares and why</p> <p>Understand that a wide base is sturdy</p>	<p>apply their understanding of how to strengthen, stiffen and reinforce more complex structures (including reinforcing joins such as with jinx triangles)</p>	<p>apply their understanding of how to strengthen, stiffen and reinforce more complex structures (including reinforcing joins such as with jinx triangles)</p>
<p>Mechanisms</p>		<p>explore and use mechanisms [for example, levers, sliders, wheels and axles, winding], in their products, with support</p>	<p>explore and use mechanisms [for example, levers, wheels and axles, winding], in their products</p>	<p>understand and use mechanical systems in their products [for example, pulleys, levers and linkages]</p>	<p>understand and use mechanical systems in their products [for example, pulleys, levers and linkages]</p>	<p>understand and use mechanical systems in their products [for example, gears, cams,]</p>	<p>understand and use mechanical systems in their products [for example, pulleys, levers and linkages]</p>

Electronic systems						understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]	understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
Computer control							apply their understanding of computing to program, monitor and control their products
Evaluating	Verbally discuss what they liked or didn't like about their creation	Talk about their own and others' work and say how well it works in relation to the purpose. Say what they like and dislike. Describe how a product works.	Evaluate their ideas and products against design criteria Consider what changes could be made to improve it against the design criteria	Evaluate their ideas and products against design criteria Consider the views of others to improve their work Identify where evaluations have led to improvements in the products.	evaluate their ideas and products against their own design criteria Consider the views of others to improve their work Identify where evaluations have led to improvements in the products.	evaluate their ideas and products against their own design criteria, justifying their thoughts with explanations (i.e. using because) Consider the views of others to improve their work	evaluate their ideas and products against their own design criteria, justifying their thoughts with explanations (i.e. using because) Consider the views of others to improve their work
Cooking and Nutrition	Opportunities for exploring foods and making	know that you have to wash my hands and keep work surfaces clean when preparing food. Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.	Prepare food safely and hygienically and can describe what this means. Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.	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 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 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	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