



Design & Technology Skills Map

Year Group	Key Skills				
	Design	Make	Evaluate	Knowledge	Cooking & Nutrition
1	<ul style="list-style-type: none"> • begin to design purposeful, functional, appealing products for themselves and other users based on design criteria; • begin to generate, <u>develop</u>, <u>model</u> and <u>communicate</u> ideas through talking, drawing, templates, mock-ups and ICT, and where appropriate, information and communication technology; 	<ul style="list-style-type: none"> • begin to select from and <u>use</u> a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]; • begin to select from and <u>use</u> a wide range of materials and components (including construction materials, textiles and ingredients, according to their characteristics); 	<ul style="list-style-type: none"> • begin to <u>explore</u> and <u>evaluate</u> a range of existing products; • begin to <u>evaluate</u> their ideas and products against design criteria; 	<ul style="list-style-type: none"> • begin to <u>build</u> structures, exploring how they can be made stronger, stiffer and more stable; • begin to <u>explore</u> and use mechanisms [for example, levers, sliders, wheels and axles], in their products; 	<ul style="list-style-type: none"> • begin to <u>use</u> the basic principles of a healthy and varied diet to <u>prepare</u> dishes; • begin to <u>understand</u> where food comes from;

<p>2</p>	<ul style="list-style-type: none"> • <u>design</u> purposeful, functional, appealing products for themselves and other users based on design criteria; • <u>generate</u>, <u>develop</u>, <u>model</u> and <u>communicate</u> ideas through talking, drawing, templates, mock-ups and ICT, and where appropriate, information and communication technology; 	<ul style="list-style-type: none"> • <u>select from and use</u> a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]; • <u>select from and use</u> a wide range of materials and components (including construction materials, textiles and ingredients, according to their characteristics); 	<ul style="list-style-type: none"> • <u>explore and evaluate</u> a range of existing products; • <u>evaluate</u> their ideas and products against design criteria; 	<ul style="list-style-type: none"> • <u>build structures</u>, exploring how they can be made stronger, stiffer and more stable; • <u>explore</u> and use mechanisms [for example, levers, sliders, wheels and axles], in their products; 	<ul style="list-style-type: none"> • <u>use</u> the basic principles of a healthy and varied diet to <u>prepare</u> dishes; • <u>understand</u> where food comes from;
<p>3</p>	<ul style="list-style-type: none"> • <u>begin to use</u> research and <u>develop</u> design criteria to inform the design of innovative, functional, appealing products that are fit for purpose and aimed at particular individuals or groups; • <u>begin to generate</u>, <u>develop</u>, <u>model</u> and <u>communicate</u> their ideas through discussion, annotated sketches, cross-sectional and 	<ul style="list-style-type: none"> • <u>begin to select from and use</u> a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] with increasing accuracy; • <u>begin to select from and use</u> a wider range of materials and components, including construction materials, textiles and ingredients, <u>according</u> to their functional properties and aesthetic qualities; 	<ul style="list-style-type: none"> • <u>begin to investigate and analyse</u> a range of existing products; • <u>begin to evaluate</u> their ideas and products against their own design criteria and <u>consider</u> the views of others to <u>improve</u> their work; • <u>begin to understand</u> how key events and individuals in design and technology have helped shape the world; 	<ul style="list-style-type: none"> • <u>begin to apply</u> their <u>understanding</u> of how to strengthen, stiffen and reinforce more complex structures; • <u>begin to understand and use</u> mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]; • <u>begin to understand and use</u> electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]; • <u>begin to apply</u> their understanding of 	<ul style="list-style-type: none"> • <u>begin to understand and apply</u> the principles of a healthy and varied diet; • <u>begin to prepare and cook</u> a variety of predominantly savoury dishes using a widening range of cooking techniques; • <u>begin to understand seasonality and know</u> where and how a variety of ingredients are grown, reared, caught and processed;

	<p>exploded diagrams, prototypes, pattern pieces and computer-aided design (CAD);</p>			<p>computing to <u>program</u>, <u>monitor</u> and <u>control</u> their products;</p>	
<p>4</p>	<ul style="list-style-type: none"> • gain more confidence to <u>use</u> research and <u>develop</u> design criteria to inform the design of innovative, functional, appealing products that are fit for purpose and aimed at particular individuals or groups; • gain more confidence to <u>generate</u>, <u>develop</u>, <u>model</u> and <u>communicate</u> their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design (CAD); 	<ul style="list-style-type: none"> • gain more confidence to <u>select</u> from and <u>use</u> a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] with increasing accuracy; • gain more confidence to <u>select</u> from and <u>use</u> a wider range of materials and components, including construction materials, textiles and ingredients, <u>according</u> to their functional properties and aesthetic qualities; 	<ul style="list-style-type: none"> • gain more confidence to <u>investigate</u> and <u>analyse</u> a range of existing products; • gain more confidence to <u>evaluate</u> their ideas and products against their own design criteria and <u>consider</u> the views of others to <u>improve</u> their work; • gain more proficient to <u>understand</u> how key events and individuals in design and technology have helped shape the world; 	<ul style="list-style-type: none"> • gain more confidence to <u>apply</u> their <u>understanding</u> of how to strengthen, stiffen and reinforce more complex structures; • gain more confidence in <u>understanding</u> and <u>using</u> mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]; • gain more proficient to <u>understand</u> and <u>use</u> electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]; • gain more confidence to <u>apply</u> their <u>understanding</u> of computing to <u>program</u>, <u>monitor</u> and <u>control</u> their products; 	<ul style="list-style-type: none"> • gain more confidence in <u>understanding</u> and <u>applying</u> the principles of a healthy and varied diet; • gain more confidence to <u>prepare</u> and <u>cook</u> a variety of predominantly savoury dishes using a widening range of cooking techniques; • expand the <u>understanding</u> of seasonality and <u>knowing</u> where and how a variety of ingredients are grown, reared, caught and processed;

5	<ul style="list-style-type: none"> • <u>use</u> research and <u>develop</u> design criteria to inform the design of innovative, functional, appealing products that are fit for purpose and aimed at particular individuals or groups; • <u>generate</u>, <u>develop</u>, <u>model</u> and <u>communicate</u> their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design (CAD); 	<ul style="list-style-type: none"> • <u>select</u> from and <u>use</u> a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] with increasing accuracy; • <u>select</u> from and <u>use</u> a wider range of materials and components, including construction materials, textiles and ingredients, <u>according</u> to their functional properties and aesthetic qualities; 	<ul style="list-style-type: none"> • <u>investigate</u> and <u>analyse</u> a range of existing products; • <u>evaluate</u> their ideas and products against their own design criteria and <u>consider</u> the views of others to <u>improve</u> their work; • <u>understand</u> how key events and individuals in design and technology have helped shape the world; 	<ul style="list-style-type: none"> • <u>apply</u> their <u>understanding</u> of how to strengthen, stiffen and reinforce more complex structures; • <u>understand</u> and <u>use</u> mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]; • <u>understand</u> and <u>use</u> electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]; • <u>apply</u> their understanding of computing to <u>program</u>, <u>monitor</u> and <u>control</u> their products; 	<ul style="list-style-type: none"> • <u>understand</u> and <u>apply</u> the principles of a healthy and varied diet; • <u>prepare</u> and <u>cook</u> a variety of predominantly savoury dishes using a widening range of cooking techniques; • <u>understand</u> seasonality and <u>know</u> where and how a variety of ingredients are grown, reared, caught and processed;
6	<ul style="list-style-type: none"> • deepen the skills to <u>use</u> research and <u>develop</u> design criteria to inform the design of innovative, functional, appealing products that are fit for purpose and aimed at particular individuals or groups; 	<ul style="list-style-type: none"> • deepen the skills to <u>select</u> from and <u>use</u> a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] with increasing accuracy; • deepen the skills to <u>select</u> from and <u>use</u> a wider range of materials and 	<ul style="list-style-type: none"> • deepen the skills to <u>investigate</u> and <u>analyse</u> a range of existing products; • deepen the skills to <u>evaluate</u> their ideas and products against their own design criteria and <u>consider</u> the views of others to <u>improve</u> their work; • deepen their 	<ul style="list-style-type: none"> • deepen the skills to <u>apply</u> their <u>understanding</u> of how to strengthen, stiffen and reinforce more complex structures; • deepen the skills to <u>understand</u> and <u>use</u> mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]; 	<ul style="list-style-type: none"> • deepen the skills to <u>understand</u> and <u>apply</u> the principles of a healthy and varied diet; • deepen the skills to <u>prepare</u> and <u>cook</u> a variety of predominantly savoury dishes using a widening range of cooking techniques; • deepen their <u>understanding</u> of seasonality and <u>knowing</u> where and how a variety of ingredients are grown, reared, caught and processed;

	<ul style="list-style-type: none"> • deepen the skills to <u>generate</u>, <u>develop</u>, <u>model</u> and <u>communicate</u> their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design (CAD); 	<p>components, including construction materials, textiles and ingredients, <u>according</u> to their functional properties and aesthetic qualities;</p>	<p><u>understanding</u> of how key events and individuals in design and technology have helped shape the world;</p>	<ul style="list-style-type: none"> • deepen the skills to <u>understand</u> and <u>use</u> electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]; • deepen the skills to <u>apply</u> their understanding of computing to <u>program</u>, <u>monitor</u> and <u>control</u> their products; 	
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