

Year 1 Progression of Skills and vocabulary in Design and Technology

Year 1	<p>National Curriculum Key Stage 1:</p> <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). 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.</p>		
Focus Study Area			
Cooking and Nutrition	<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. ✓ Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing). ✓ Evaluate their ideas and products against design criteria. ✓ Use the basic principles of a healthy and varied diet to prepare dishes. ✓ Understand where food comes from. ✓ Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world 	<p><u>Coverage</u></p> <p>Summer – Chop, Slice and Mash</p>	<p><u>Vocabulary</u></p> <p>Food, fruit, vegetables, peel, slice, tear, chop, mash, grate, flowering head, product, tool</p>
Textiles	<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>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.</p> <ul style="list-style-type: none"> ✓ Explore and evaluate a range of existing products. ✓ Evaluate their ideas and products against design criteria. ✓ Build structures, exploring how they can be made stronger, stiffer and more stable. ✓ Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. 	<p><u>Coverage</u></p> <p>Spring – Shade and Shelter</p>	<p><u>Vocabulary</u></p> <p>Opaque, permanent, temporary, transparent, clay, den, durable, material, shelter, strong</p>
Mechanisms	<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><u>Coverage</u></p> <p>Autumn - Taxi</p>	<p><u>Vocabulary</u></p> <p>Wheel, axle, rod, turn, chassis, frame, spindle,</p>

	<ul style="list-style-type: none">✓ Explore and evaluate a range of existing products.✓ Evaluate their ideas and products against design criteria.✓ Explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products.		
Use of materials/ Construction		<u>Coverage</u>	<u>Vocabulary</u>

Year 2 Progression of Skills and vocabulary in Design and Technology

Year 2	<p>National Curriculum Key Stage 1:</p> <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). 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.</p>		
Focus Study Area			
Cooking and Nutrition	<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. ✓ Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing). ✓ Explore and evaluate a range of existing products. ✓ Evaluate their ideas and products against design criteria. ✓ Use the basic principles of a healthy and varied diet to prepare dishes. ✓ Understand where food comes from. ✓ Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. 	<p><u>Coverage</u> Spring – Remarkable Recipes</p>	<p><u>Vocabulary</u></p> <p>Food, fruit, vegetables, peel, slice, tear, chop, mash, grate</p>
Textiles	<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. ✓ 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. ✓ Explore and evaluate a range of existing products. ✓ Evaluate their ideas and products against design criteria. 	<p><u>Coverage</u> Autumn – Cut, Stitch and Join</p>	<p><u>Vocabulary</u></p> <p>Stitch, designer, needle, thread, running stitch, sequin, pattern, template</p>
Mechanisms	<ul style="list-style-type: none"> ✓ Design purposeful, functional, appealing products for themselves and other users based on design criteria. 	<p><u>Coverage</u> Summer – Beach Hut</p>	<p><u>Vocabulary</u></p> <p>Apex roof, bench hook, butt joint, score, stilts, strengthen</p>

	<ul style="list-style-type: none"> ✓ Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. ✓ 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. ✓ Evaluate their ideas and products against design criteria. ✓ Build structures, exploring how they can be made stronger, stiffer and more stable 		
Use of materials/ Construction		<u>Coverage</u>	<u>Vocabulary</u>

Year 3 Progression of Skills and vocabulary in Design and Technology

Year 3	<p>National Curriculum Key Stage 2:</p> <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. 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.</p>		
Focus Study Area			
Cooking and Nutrition	<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 ✓ 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. ✓ 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. ✓ Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. 	<p><u>Coverage</u></p> <p>Autumn– Cook well, Eat well</p>	<p><u>Vocabulary</u></p> <p>Bake, barbeque, boil, calcium, carbohydrate, design criteria, Eat well Guide, fry, grill, microwave, mineral, nutrient, protein, ratatouille, roast, simmer, slow cooking, steam, stew, vitamin</p>
Textiles		<p><u>Coverage</u></p>	<p><u>Vocabulary</u></p>
Mechanisms	<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><u>Coverage</u></p> <p>Spring – Making it move</p>	<p><u>Vocabulary</u></p> <p>Automaton, follower, lever, linkage, rotation, slider, pulley</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. ✓ 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 and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages). 		Types of Cam – snail, pear, heart, circular
Use of materials/ Construction	<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. ✓ 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. ✓ 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. ✓ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. 	<u>Coverage</u> Summer - Greenhouse	<u>Vocabulary</u> Biome, cloche, conservatory, frame, greenhouse, rigid, stability, vent Translucent, transparent, strength, stability, cold frame

Year 4 Progression of Skills and vocabulary in Design and Technology

Year 4	<p>National Curriculum Key Stage 2: 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. 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.</p>		
Focus Study Area			
Cooking and Nutrition	<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. ✓ 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. ✓ 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. ✓ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. ✓ 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. ✓ Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world. 	<p><u>Coverage</u> Spring – Fresh Food, Good Food</p>	<p><u>Vocabulary</u> decaying, deteriorate, preservation, drying, salting, pickling, canning, refrigerated, drying, freezing, pasteurising,</p>
Textiles	<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. 	<p><u>Coverage</u> Autumn – Functional and Fancy Fabrics</p>	<p><u>Vocabulary</u> Applique, motif, printing, colour palette, durable, embroider, fabric</p>

	<ul style="list-style-type: none"> ✓ Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. ✓ 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. ✓ 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>Cotton, denim, gore-tex, lace, leather, lycra, nylon, polyester, wool Block printing cotton embellishment hem motif woven</p>
Mechanisms	<ul style="list-style-type: none"> ✓ 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. ✓ Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. ✓ Understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages). 	<p style="text-align: center;"><u>Coverage</u></p> <p style="text-align: center;">Autumn – Moving mechanisms</p> <p style="text-align: center;">Summer – Tomb Builders</p>	<p style="text-align: center;"><u>Vocabulary</u></p> <p>Actuator, compress, compressor, deflate, force, gas, inflate, jack, lever, liquid, nozzle, particle, piston, plunger, pneumatics, pressure, valve.</p> <p>Compound machine, friction, fulcrum, prototype, rigidity, second-class lever, wedge, effort, force</p>
Use of materials/ Construction		<u>Coverage</u>	<u>Vocabulary</u>

Year 5 Progression of Skills and vocabulary in Design and Technology

Year 5	<p>National Curriculum Key Stage 2: 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. 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.</p>		
Focus Study Area			
Cooking and Nutrition	<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. 	<p><u>Coverage</u> Spring – Eat the Seasons</p>	<p><u>Vocabulary</u> Balanced diet, carbon footprint, hygiene, saute,</p>
Textiles		<p><u>Coverage</u></p>	<p><u>Vocabulary</u></p>
Mechanisms	<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. ✓ Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. ✓ 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). ✓ Critique, evaluate and test their ideas and products and the work of others. 	<p><u>Coverage</u> Autumn – Moving Mechanisms</p>	<p><u>Vocabulary</u> Actuator, compress, deflate, jack, nozzle, piston, plunger, pneumatic system, reservoir, syringe, valve,</p>
Use of materials/ Construction	<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><u>Coverage</u> Summer – Architecture</p>	<p><u>Vocabulary</u> buildings, roofs, limestone, marble, frieze, pediment, column, bridge,</p>

	<ul style="list-style-type: none">✓ 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.✓ 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.✓ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.		beams, arches, trusses, architecture, caryatids, cornice, fluting,
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Year 6 Progression of Skills and vocabulary in Design and Technology

Year 6	<p>National Curriculum Key Stage 2: 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. 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.</p>		
Focus Study Area			
Cooking and Nutrition	<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 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. 	<p><u>Coverage</u> Summer – Food for life</p>	<p><u>Vocabulary</u> Additive, flavouring, knead, organic food, processed food, pasteurise, prove, yeast</p>
Textiles	<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. ✓ Investigate and analyse a range of existing products. 	<p><u>Coverage</u> Autumn – Make do and Mend</p>	<p><u>Vocabulary</u> Bias binding, blanket stitch, darn, tacking stitch, whip stitch,</p>
Mechanisms		<p><u>Coverage</u></p>	<p><u>Vocabulary</u></p>
Use of materials/ Construction	<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. ✓ 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. ✓ Investigate and analyse a range of existing products. 	<p><u>Coverage</u> Spring - Engineer</p>	<p><u>Vocabulary</u> Abutment, aqueduct, arch, beam, bridge, compression, distort, iron, span, steel, tension, tuss, suspension bridge</p>

	<ul style="list-style-type: none">✓ 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.✓ Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.		
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