



PROGRESSION of DESIGN TECHNOLOGY

Area / skill	Designing	Making	Evaluating	Technical Knowledge	Cooking and nutrition
Year1	<p>a.Work within a range of contexts e.g. story- based, playgrounds. State what products they are designing and making. Say whether their products are for themselves or other users. Describe what their products are for.</p> <p>b. Use existing knowledge to generate their own original designs. Begin to develop and communicate ideas by talking and drawing.</p>	<p>a.Plans by suggesting what to do next. Selects from a range of tools, materials and components.</p> <p>b.Follows procedures for safety and hygiene. Uses a range of materials, components, construction kits, textiles, food ingredients and mechanical products. Measures, marks out, shapes and cuts most materials.</p>	<p>a.Talk about their design ideas and what they are making. Talk about how to make their products better.</p> <p>b.Explore what products are, what they are made from, who they are for, how they are used, where they are from. Talk about likes and dislikes of existing products.</p>	<p>Pupils recognise a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. They know how to operate simple equipment and show an interest in toys with buttons, flaps and simple mechanisms and operate them successfully.</p> <p>Pupils understand the simple working characteristics of materials and components. Know about the movement of simple mechanisms such as levers, sliders, wheels and axles. Recognise that food ingredients should be combined according to their sensory characteristics. Begin to use the correct technical vocabulary for projects.</p>	<p>a.Recognise that food comes from plants or animals. Food is farmed, grown elsewhere or caught.</p> <p>b.Name and sort foods into the five groups in 'The Eatwell Plate.' Begin to recognise that everyone should eat at least five portions of fruit and vegetables every day. Prepare some simple dishes. Use techniques e.g. cutting, peeling and grating.</p>
Year 2	<p>a. Work confidently within a range of contexts e.g. imaginary, local community, industry and wider environment. State what products they are designing and making. Say whether their products are for themselves or other users. Describe what their products are for. Say how their products will work and how they're suitable for intended users. Use simple design criteria to help develop their ideas.</p> <p>b. Generate ideas by drawing on their own experiences. Use knowledge of existing products to help come up with ideas. Develop and communicate ideas by talking</p>	<p>a.Plans by suggesting what to do next. Selects from a range of tools, materials and components according to their characteristics. Explains their choices. b.Follows procedures for safety and hygiene. Uses a range of materials, components, construction kits, textiles, food ingredients and mechanical products. Measures, marks out, cuts and shapes a range of materials and components. Assembles, joins and combines materials and components. Begins to use finishing techniques, including those from art and design sessions.</p>	<p>a.Talk about their design ideas and what they are making. Make simple judgements about their products and ideas against design criteria. Talk and write about how to make their products better. b.Explore what products are, what they are made from, who they are for, how they are used and where they might be used. Talk about likes and dislikes of existing products. Give reasons.</p>	<p>Pupils understand the working characteristics of materials and components. They know about the movement of simple mechanisms such as levers, sliders, wheels and axles. Recognise that food ingredients should be combined according to their sensory characteristics. Understand how freestanding structures can be made stronger, stiffer and more stable. Recognise that 3D textiles products can be assembled from two identical fabric shapes. Use the correct technical vocabulary for projects.</p>	<p>a.Know that food comes from plants or animals. Food is farmed, grown elsewhere (e.g home), imported or caught. b.Name and sort foods into the five groups in 'The Eatwell Plate.' Begin to recognise that everyone should eat at least five portions of fruit and vegetables every day. Know how to prepare simple dishes safely and hygienically, without using a heat source. Prepare a range of simple dishes. Use techniques e.g. cutting, chopping, peeling and grating.</p>

	and drawing. Model ideas by exploring materials, components, constructions kits and by making templates and mock-ups. Use information and communication technology, where appropriate, to develop and communicate their ideas.				
Year 3	<p>a. Work confidently within a range of contexts, such as the home, school, leisure and industry. Describe the purpose of their products. Indicate design features of their products. Gather information about the needs and wants of individuals or groups. Develop their own design criteria.</p> <p>b. Share and clarify ideas through discussion. Model ideas using prototypes. Use annotated diagrams and some computer-aided design packages, to develop and communicate ideas. Generate realistic ideas, focusing on the needs of the user. Begin to take account of the availability of resources.</p>	<p>a. Select tools and equipment suitable to the task. Explain their choices. Selects some materials and components suitable to the task. Order the main stages of making.</p> <p>b. Follow procedures for safety and hygiene. Use a wide range of materials and components e.g. textiles, mechanical, construction kits, electrical and food ingredients. Measures, marks out, cuts and shapes materials and components with some accuracy. Assembles, joins and combines many materials with some accuracy. Applies some finishing techniques.</p>	<p>a. Identify the strengths and areas for development in their ideas and products. Consider the views of others. Refer to their design criteria as they design and make. Use their design criteria to evaluate their completed products.</p> <p>b. Investigate and analyse: how well products have been designed and made; which materials and methods were used and which were successful; how well the products worked; whether they achieved their purpose and the needs/wants of the users. Recognise successful inventors, designers, chefs and engineers, who have been influential in the design and technology industries.</p>	<p>Pupils know how to use learning from science and mathematics to help design and make products that work. They understand that materials have functional and aesthetic qualities. Recognise that materials can be combined and mixed to create more useful characteristics. Know how mechanical systems such as levers and linkages create movement. Know that simple electrical circuits and components can be used to create functional products. Program a computer to control their products. Make strong, stiff shell structures. Know that a single fabric shape can be used to make a 3D textile product. Recognise several fresh, pre-cooked and processed foods.</p>	<p>a. Know that food is farmed, reared, grown elsewhere (e.g. home), imported or caught locally, regionally and internationally.</p> <p>b. Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, including the use of a heat source. Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Recognise that a healthy diet is made up of a variety and balance of different foods and drinks, as depicted on 'The Eatwell Plate.' Know that to be active and healthy, food is needed to provide energy for the body.</p>
Year 4	<p>a. Work confidently in a range of contexts, e.g. home, school, leisure, culture, industry and wider environment. Describe the purpose of their products. Indicate design features of their products that will appeal to intended users. Gather information about the needs and wants of individuals or groups. Develop their own design criteria and use this to inform their ideas.</p> <p>b. Share and clarify ideas confidently, through discussion. Model ideas using prototypes and pattern pieces. Use annotated sketches, some cross-sectional drawings and computer-aided design packages, to develop and communicate ideas. Generate realistic ideas, focusing on the needs of the user. Make design decisions that take account of the availability of resources.</p>	<p>a. Confidently select tools and equipment suitable to the task. Explain their choices, giving evidence. Selects materials and components suitable to the task. Order the main stages of making in logical steps.</p> <p>b. Follow procedures for safety and hygiene. Use an extensive range of materials and components e.g. textiles, mechanical, construction kits, electrical and food ingredients. Measures, marks out, cuts and shapes materials and components with accuracy. Accurately assembles, joins and combines most materials. Accurately apply several finishing techniques.</p>	<p>a. Identify the strengths and areas for development in their ideas and products. Consider the views of others, including intended users, to improve their work. Refer to their design criteria as they design and make. Use their design criteria to evaluate and improve their completed products.</p> <p>b. Investigate and analyse: how well products have been designed and made; why materials have been chosen; what methods of construction were used; how well the products worked; whether they achieved their purpose and the needs/wants of the users. Investigate and analyse: who designed the products; where products were designed and made; when products were designed and made; whether products can be recycled or re-used. Recognise several inventors, designers, chefs,</p>	<p>Pupils use learning from science, mathematics and other subjects to help design and make products that work. They understand that materials have functional and aesthetic qualities. Apply this thinking successfully to their own products. Recognise that materials can be combined and mixed to create more useful characteristics. Know that mechanical and electrical systems have an input, process and output. Know how mechanical systems such as levers and linkages create movement. Know that simple electrical circuits and components can be used to create functional products. Program a computer to control their products. Make strong, stiff shell structures for a purpose. Know that a single fabric shape can be used to make a 3D textile product.</p>	<p>a. Know that food is farmed, reared, grown elsewhere (e.g. home, allotments), exported, imported or caught. This can be on a local, regional and international scale.</p> <p>b. Know how to prepare and cook a variety of savoury and some sweet dishes safely and hygienically, including the use of a heat source. Know how to use a wide range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Know that a healthy diet is made up of a variety and balance of different foods and drinks, as depicted on 'The Eatwell Plate.' Know that to be active and healthy, food is needed to provide energy for the body.</p>

			manufacturers and engineers, who have been influential in the design and technology industries.	Recognise a range of fresh, pre-cooked and processed foods.	
Year 5	<p>a.Work confidently in a wide range of contexts, e.g. home, school, leisure, culture, industry, enterprise and wider environment. Describe in detail, the purpose of their products. Indicate design features of their products that will appeal to intended users. Gather information about the needs and wants of individuals or groups. Develop their own design criteria and use this to inform their ideas. Carry out research e.g. surveys and interviews to identify users' needs, wants and preferences. Develop a simple design specification to guide their thinking.</p> <p>b.Share and clarify ideas confidently, through discussion. Model ideas using prototypes and pattern pieces. Use annotated sketches, cross-sectional drawings, exploded diagrams and computer-aided design packages, to develop and communicate ideas. Generate realistic ideas, focusing on the needs of the user. Make design decisions that take account of the availability of resources. Generate innovative ideas from prior research. Make design decisions based on time, cost and resources constraints.</p>	<p>a.Confidently select tools and equipment suitable to the task. Explain their choices, giving evidence. Selects materials and components suitable to the task. Produce appropriate lists of tools, equipment and materials that they will need. Order the stages of the making process, in logical steps. Formulate step-by-step plans as guide to making.</p> <p>b.Follow procedures for safety and hygiene. Use an extensive range of materials and components e.g. textiles, mechanical, construction kits, electrical and food ingredients. Measures, marks out, cuts and shapes materials and components with accuracy. Accurately assembles, joins and combines most materials. Accurately apply a range of finishing techniques, including those from art and design sessions. Use techniques that involve a number of steps Use resourcefulness when tackling practical problems.</p>	<p>a.Identify the strengths and areas for development in their ideas and products. Consider the views of others, including intended users, to improve their work. Refer to their design criteria as they design and make. Use their design criteria to evaluate and improve their completed products. Critically evaluate the quality of the design, manufacture and fitness for purpose of their products. Evaluate their ideas and products against their original design specification.</p> <p>b.Investigate and analyse: how well products have been designed and made; why materials have been chosen; what methods of construction were used; how well the products worked; whether they achieved their purpose and the needs/wants of the users. Investigate and analyse: who designed the products; where products were designed and made; when products were designed and made; whether products can be recycled or re-used. Consider cost and sustainability. Consider the impact and innovative qualities of their products</p> <p>Recognise several inventors, designers, chefs, manufacturers and engineers, who have been influential in the design and technology industries.</p>	<p>Pupils use learning from science, mathematics, other subjects and sources to help design and make products that work. They understand that materials have functional and aesthetic qualities. Apply this thinking successfully to their own products. Recognise that materials can be combined and mixed to create more useful characteristics. Know that mechanical and electrical systems have an input, process and output. Know how mechanical systems such as levers and linkages create movement. Know that simple electrical circuits and components can be used to create functional products. Program a computer to control their products. Make strong, stiff shell structures for a purpose. Know that a single fabric shape can be used to make a 3D textile product. Recognise a range of fresh, pre-cooked and processed foods. Know that mechanical systems e.g. cams, pulleys or gears create movement. Explore more complex electrical circuits and components. Program a computer to monitor changes in the environment and control their products. Reinforce and strengthen a 3D framework. Know that 3D textile products can be made from a combination of fabric shapes. Adapt recipes by adding or substituting one or more ingredients.</p>	<p>a.Know that food is farmed, reared, grown elsewhere (e.g. home, allotments), exported, imported or caught. This can be on a local, regional and international scale. Begin to know that seasons and weather affect food availability. Begin to know how food is processed into ingredients that can be eaten or used in cooking.</p> <p>b.Know how to prepare and cook a variety of savoury and some sweet dishes safely and hygienically, including the use of a heat source. Know how to use a wide range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Know that a healthy diet is made up of a variety and balance of different foods and drinks, as depicted on 'The Eatwell Plate'. Know that to be active and healthy, food is needed to provide energy for the body. Know that recipes can be adapted to change the taste, texture, aroma and appearance. Know that different foods contain substances that are needed for health e.g. water, fibre, vitamins and nutrients.</p>
Year 6	<p>a.Work confidently in a wide range of contexts, e.g. home, school, leisure, culture, industry, enterprise and wider environment. Describe in detail, the purpose of their products. Indicate design features of their products that will appeal to intended users. Gather information about the needs and wants of particular individuals and groups. Develop their own</p>	<p>a.Confidently select tools and equipment suitable to the task. Explain their choices, giving evidence. Selects materials and components suitable to the task. Produce appropriate lists of tools, equipment and materials that they will need. Order the stages of the making process, in logical steps. Formulate step-by-step plans as guide to</p>	<p>a.Confidently identify the strengths and areas for development in their ideas and products. Consider the views of others, including intended users, to improve their work. Refer to their design criteria as they design and make. Use their design criteria to evaluate and improve their completed products. Critically evaluate the quality of the design,</p>	<p>Pupils use learning from science, mathematics and from several subjects and sources to help design, make and evaluate products that work. They understand that materials have functional and aesthetic qualities. Apply this thinking successfully to their own products. Recognise that materials can be combined and mixed to create more useful characteristics.</p>	<p>inform their ideas. Carry out research e.g. surveys, interviews, questionnaires and web-based resources, to identify users' needs, wants and preferences. Develop detailed design specifications to guide their thinking and planning.</p> <p>b.Share and clarify ideas confidently, through discussion. Model ideas using prototypes and</p>

	<p>design criteria and use this to inform their ideas. Carry out research e.g. surveys, interviews, questionnaires and web-based resources, to identify users' needs, wants and preferences. Develop detailed design specifications to guide their thinking and planning.</p> <p>b.Share and clarify ideas confidently, through discussion. Model ideas using prototypes and pattern pieces. Use annotated sketches, cross-sectional drawings, exploded diagrams and computer-aided design packages, to develop and communicate ideas. Generate realistic ideas, focusing on the needs of the user. Make design decisions that take account of the availability of resources. Generate innovative ideas drawing on research. Make informed design decisions based on time, cost and resources constraints.</p>	<p>making. b.Follow procedures for safety and hygiene. Use an extensive range of materials and components e.g. textiles, mechanical, construction kits, electrical and food ingredients. Measures, marks out, cuts and shapes materials and components with accuracy. Accurately assembles, joins and combines materials.</p> <p>Accurately apply a range of finishing techniques, including those from art and design. Use techniques that involve a number of steps. Use resourcefulness, resilience and innovation, when tackling practical problems. Explains next steps in learning, drawing from prior experience.</p>	<p>manufacture and fitness for purpose of their products. Evaluate their ideas and products against their original design specification.</p> <p>b.Investigate and analyse: how well products have been designed and made; why materials have been chosen; what methods of construction were used; how well the products worked; whether they achieved their purpose and the needs/wants of the users. Investigate and analyse: who designed the products; where products were designed and made; when products were designed and made; whether products can be recycled or re-used.</p> <p>Investigate and analyse: how much products cost to make; how innovative products are; how sustainable the materials in products are; what impact products have beyond their intended purpose. Recognise several inventors, designers, chefs, manufacturers and engineers, who have been influential in the design and technology industries.</p>	<p>Know that mechanical and electrical systems have an input, process and output. Know how mechanical systems such as levers and linkages create movement. Know that simple electrical circuits and components can be used to create functional products.</p> <p>Program computer systems and devices to control their products. Make strong, stiff shell structures for a purpose. Know that a single fabric shape can be used to make a 3D textile product.</p> <p>Recognise a wide range of fresh, pre-cooked and processed foods. Know that mechanical systems e.g. cams, pulleys or gears create movement. Explore more complex electrical circuits and components. Program computers and devices to monitor changes in the environment and control their products.</p> <p>Reinforce and strengthen a 3D framework. Know that 3D textile products can be made from a combination of fabric shapes. Recreate and adapt existing and new recipes by adding or substituting a range of ingredients.</p>	<p>pattern pieces. Use annotated sketches, cross-sectional drawings, exploded diagrams and computer-aided design packages, to develop and communicate ideas. Generate realistic ideas, focusing on the needs of the user. Make design decisions that take account of the availability of resources. Generate innovative ideas drawing on research. Make informed design decisions based on time, cost and resources constraints.</p> <p>inform their ideas. Carry out research e.g. surveys, interviews, questionnaires and web-based resources, to identify users' needs, wants and preferences. Develop detailed design specifications to guide their thinking and planning.</p> <p>b.Share and clarify ideas confidently, through discussion. Model ideas using prototypes and pattern pieces. Use annotated sketches, cross-sectional drawings, exploded diagrams and computer-aided design packages, to develop and communicate ideas. Generate realistic ideas, focusing on the needs of the user. Make design decisions that take account of the availability of resources. Generate innovative ideas drawing on research. Make informed design decisions based on time, cost and resources constraints.</p>
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