

The Bramble Academy Progression Ladder for Design Technology

| Area / skill                                        | Designing                                                                                                                                                         | Making                                                                                                                                                  | Evaluating                                                                                                                                                                                                           | Technical Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cooking and nutrition                                                                                                                                                                                                                                                                                                                                                 |
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|                                                     | a.Understanding contexts, users and purposes.<br>b. Generating, developing, modelling and communicating ideas                                                     | a.Planning<br>b.Practical skills and techniques                                                                                                         | a.Own ideas and products.<br>b.Existing products.<br>Key events and individuals.                                                                                                                                     | a.Making products work                                                                                                                                                                                                                                                                                                                                                                                                                                                              | a.Where food comes from<br>b. Food preparation, cooking and nutrition                                                                                                                                                                                                                                                                                                 |
| EYFS Emerging                                       | a.Work in some contexts such as story-based and wider environment<br>b.Generate some original ideas from existing examples.                                       | a.Begin to use drawings and key words to make products.<br>b. Begin to show fine motor skills and logical problem solving.                              | a.Begin to talk about ideas and products they have made.<br>b.Begin to talk about and choose the most suitable products.                                                                                             | Pupils begin to recognise that a range of technology is used in places such as homes and schools. They begin to show an interest in toys with buttons and flaps.                                                                                                                                                                                                                                                                                                                    | a.Begin to recognise the types of food and where it comes from.<br>b.Begin to understand that food needs to be fresh and cooked properly.                                                                                                                                                                                                                             |
| EYFS Expected<br>Year 1 -<br>emerging               | a.Work within different contexts such as story-based, home, school, playground.<br>b.Generate ideas from existing examples.<br>Begin to talk about their designs. | a.Shows some planning skills by suggesting what to do next.<br>b. Begins to follow safety procedures. Selects from a range of materials and components. | a.Begin to talk about their design ideas and what they are making. Think about how to make their products better.<br>b.Begin to explore what products are, who they are for, how they are used, where they are from. | Pupils recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. They show an interest in toys with buttons and mechanisms. Begin to know about the simple working characteristics of materials and components. Begin to understand the movement of simple mechanisms such as levers, sliders and wheels. Know that food ingredients should be combined according to their sensory characteristics. | a.Begin to recognise that food comes from plants or animals. Food is farmed, grown elsewhere or caught.<br>b.Begin to 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. Start to prepare simple dishes. Use techniques e.g. cutting and peeling. |
| EYFS Early Learning Goal Exceeded<br>Year1 Expected | a.Work within a range of contexts e.g. story-based, playgrounds.<br>State what products they are designing and making. Say whether                                | a.Plans by suggesting what to do next. Selects from a range of tools, materials and components.                                                         | a.Talk about their design ideas and what they are making. Talk about how to make their products better.<br>b.Explore what products are, what they are made from,                                                     | 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                                                                                                                                                                                                                                                                                                                           | a.Recognise that food comes from plants or animals. Food is farmed, grown elsewhere or caught.                                                                                                                                                                                                                                                                        |

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|                                              | <p>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>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>who they are for, how they are used, where they are from. Talk about likes and dislikes of existing products.</p>                                                                                                                                                                                                                                                             | <p>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.</p> <p>Begin to use the correct technical vocabulary for projects.</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>                                                                                                             |
| <p>Year 1 Exceeded<br/>Year 2 - Emerging</p> | <p>a.Work confidently within a range of contexts e.g. imaginary, 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.</p> <p>b.Generate ideas by drawing on their own experiences. Develop and communicate ideas by talking and drawing. Begin to model ideas by</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.</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 a range of materials. Begins to assemble, join</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 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 and where they might be used. Talk about likes and dislikes of existing products.</p> | <p>Pupils understand the simple 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.</p> <p>Begin to understand how freestanding structures can be made stronger, stiffer and more stable. 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) 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> |

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|                    | exploring materials, components and mock-ups.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | and combine materials and components.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Year 2<br>Expected | <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 and drawing. Model ideas by exploring materials, components, construction kits and by making templates and mock-ups. Use information and communication</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.</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, 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.</p> <p>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.</p> <p>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.</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. 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> |

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|                                           | technology, where appropriate, to develop and communicate their ideas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Year 2<br>Exceeded<br>End of Key<br>stage | <p>a.Work confidently and imaginatively within a range of contexts e.g fiction and non-fiction. State what products they are designing and making. Say whether their products are for themselves or other users. Describe what their products are for and their purpose. 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 and drawing. Model ideas by exploring materials, components, constructions kits and by making templates and mock-ups. Use information and communication technology confidently</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.</p> <p>b.Confidently follows procedures for safety and hygiene and explains reasons for this. Uses a range of materials, components, construction kits, textiles, food ingredients and mechanical products. Accurately measures, marks out, cuts and shapes a range of materials and components. Accurately 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. Begin to refer to their design criteria as they design and make.</p> <p>b.Explore what products are, what they are made from, who they are for, how they are used and where they might be used. Think about whether products can be recycled. 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. Begin to understand and use a wider range of materials and components e.g. electrical circuits and programming computer systems.</p> | <p>a.Know that food comes from plants or animals. Food is farmed, grown elsewhere (e.g home), imported or caught locally, regionally and internationally.</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. Know how to prepare simple dishes safely and hygienically, without using a heat source. Prepare a range of dishes. Use techniques e.g. cutting, chopping, peeling and grating.</p> <p>Begin to know that a healthy diet is made up from a variety and balance of different foods and drinks. That food is needed to provide energy for the body.</p> |

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|                          | (where appropriate) to develop and communicate their ideas. Begin to share ideas through discussion. Generate realistic ideas, focusing on the needs of the user.                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Year 3 (KS2)<br>Emerging | <p>a.Work within contexts, such as the home and school. Describe the purpose of their products. Indicate some design features of their products. Gather information about the needs and wants of particular individuals or groups.</p> <p>b.Begin to share and clarify ideas through discussion. Begin to model their ideas using prototypes. Begin to generate realistic ideas, focusing on the needs of the user.</p> | <p>a.Begin to select tools and equipment suitable to the task. Begin to explain their choices. Selects some materials and components suitable to the task. Begin to order the main stages of making.</p> <p>b.Begin to follow procedures for safety and hygiene. Begin to use a wider range of materials and components e.g. textiles. Measures, marks out, cuts and shapes materials and components with some accuracy.</p> | <p>a.Begin to identify the strengths and areas for development in their ideas and products. Start to consider the views of others. Begin to refer to their design criteria as they design and make.</p> <p>b.Begin to investigate and analyse: how well products have been designed and made; which materials and methods were successful; how well the products worked. Start to recognise some successful inventors, designers and engineers.</p> | <p>Pupils begin to know how to use learning from science and mathematics to help design and make products that work. Begin to understand that materials have functional and aesthetic qualities. Recognise that materials can be combined and mixed to create more useful characteristics. Begin to know how mechanical systems such as levers and linkages create movement. Begin to know that simple electrical circuits and components can be used to create functional products. Start to program a computer to control their products. Begin to make strong, stiff shell structures. Recognise 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.Begin to know: how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, including the use of a heat source. Begin to know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Begin to 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> |

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| Year 3<br>Expected | <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 3<br>Exceeded | <p>a.Work confidently in a range of contexts, such as the home, school, leisure, culture and industry. Describe the purpose of their products. Indicate design features of their products. Gather information about the needs and wants of</p>                                                                                                                                                                                                                                                                                                                                                                | <p>a.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 logically.</p> <p>b.Follow procedures for safety and hygiene. Use</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 their completed products.</p>                                                                                                                                                                                                                                                                                                                                         | <p>Pupils 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</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 savoury and some sweet dishes safely and hygienically, including</p>                                                                                                                                                                                                                                                                                                                                                                            |

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|                            | <p>individuals or groups. Develop their own design criteria.</p> <p>b. Confidently share and clarify ideas through discussion. Model ideas using prototypes. Use annotated sketches, diagrams and some computer-aided design packages, to develop and communicate ideas. Generate realistic ideas, focusing on the needs of the user. Take account of the availability of resources.</p>             | <p>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. Apply several finishing techniques.</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 successful inventors, designers, chefs and engineers, who have been influential in the design and technology industries.</p> | <p>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.</p>                                         | <p>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>                                         |
| <p>Year 4<br/>Emerging</p> | <p>a. Work confidently in a range of contexts, e.g. home, school, leisure, culture and wider environment. 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 and use this to inform their ideas.</p> <p>b. Share and clarify ideas through discussion.</p> | <p>a. 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 logically.</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</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 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</p>                                                     | <p>Pupils use learning from science and mathematics to help design and make products that work. They understand that materials have functional and aesthetic qualities. Apply this thinking to their own products. 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</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,</p> |

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|                            | <p>Model ideas using prototypes and some pattern pieces. Use annotated sketches, diagrams and some computer-aided design packages, to develop and communicate ideas. Generate realistic ideas, focusing on the needs of the user. Take account of the availability of resources.</p>                                                                                                                                                                                                                                                                                   | <p>shapes materials and components with accuracy. Assembles, joins and combines many materials with accuracy. Accurately apply several finishing techniques.</p>                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>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 and engineers, who have been influential in the design and technology industries.</p>                                                                                                                                                                                                                                                                                                                                                                  | <p>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.</p>                                                                                                                                                                                                                                                                                                                                                                  | <p>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>                                                                                                                                                                                                                                                                                                                                                           |
| <p>Year 4<br/>Expected</p> | <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.<br/>b. Share and clarify ideas confidently, through discussion. Model ideas using prototypes and pattern pieces. Use annotated sketches, some cross-sectional drawings and</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.<br/>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 assemble, 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.<br/>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</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.</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.<br/>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</p> |



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|                    | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | can be recycled or re-used. Recognise several inventors, designers, chefs, manufacturers and engineers, who have been influential in the design and technology industries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | healthy, food is needed to provide energy for the body.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Year 4<br>Exceeded | a.Work confidently in a wide range of contexts, e.g. home, school, leisure, culture, industry, enterprise and wider environment. Describe in depth, 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. Begin to carry out research to identify users' needs/wants. b.Share and clarify ideas confidently, through discussion. Model ideas using prototypes and pattern pieces. Use annotated sketches, some cross-sectional drawings and | 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 stages of the making process, in logical steps. 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. Explain reasons for applying these techniques. | 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. 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. Begin to consider cost and sustainability. Recognise several inventors, designers, | 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. | 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. 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 |

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|                    | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | chefs, manufacturers and engineers, who have been influential in the design and technology industries. Begin to consider the impact and innovative qualities of their products.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Recognise a range of fresh, pre-cooked and processed foods.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | to provide energy for the body. Begin to adapt recipes and know about substances that are needed for health e.g. water, fibre and nutrients.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Year 5<br>Emerging | <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, to identify users' needs or wants. Begin to develop a simple design specification.</p> <p>b. Share and clarify ideas confidently, through discussion. Model ideas using prototypes and pattern pieces. Use</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 stages of the making process, 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. Explain reasons for applying these 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. Begin to critically evaluate the quality of the design, manufacture and fitness for purpose of their products. Begin to 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</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.</p> <p>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. 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</p> |

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|                 | <p>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. Begin to generate innovative ideas. Begin to make design decisions based on time and resources constraints.</p>                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>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 Recognise several inventors, designers, chefs, manufacturers and engineers, who have been influential in the design and technology industries.</p>                                                                                                                                                                                                                                        | <p>Recognise a range of fresh, pre-cooked and processed foods. Begin to know that mechanical systems e.g. cams, pulleys or gears create movement. Explore more complex electrical circuits and components. Start to program a computer to monitor changes in the environment and control their products. Begin to reinforce and strengthen a 3D framework. Begin to adapt recipes by adding or substituting one or more ingredients.</p>                                                                                                                               | <p>drinks, as depicted on 'The Eatwell Plate.' Know that to be active and healthy, food is needed to provide energy for the body. Begin to adapt recipes to improve texture, aroma and appearance. Know about substances that are needed for health e.g. water, fibre and nutrients.</p>                                                                                                                                                                                       |
| Year 5 Expected | <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</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. b.Follow procedures for safety and hygiene. Use an extensive range of materials and components e.g. textiles, mechanical, construction</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. b.Investigate and analyse: how well products have been designed and made; why materials have been chosen;</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</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. 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.</p> |

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|                 | <p>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>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>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 Recognise several inventors, designers, chefs, manufacturers and engineers, who have been influential in the design and technology industries.</p> | <p>be used to create functional products.</p> <p>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>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 5 Exceeded | <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</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</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</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</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</p>                                                                                                                                                                                                                                                                                                                                                            |

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|  | <p>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 design criteria and use this to inform their ideas. Carry out research e.g. surveys, interviews, questionnaires and some web-based resources, 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.</p> | <p>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 assemble, joins and combines most materials. Accurately apply a range of finishing techniques, including those from art and design. Use techniques that involve a number of steps. Use resourcefulness and resilience when tackling practical problems.</p> | <p>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 of materials, designs and products. Explore and comment on the impact and innovative qualities of their products Recognise several inventors, designers, chefs, manufacturers and engineers, who have been influential in the design and technology industries.</p> | <p>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.</p> <p>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 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. Reinforce and strengthen a 3D framework. Know that 3D textile products can be made from a combination of fabric shapes. Adapt recipes</p> | <p>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, minerals and nutrients.</p> |
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|                                           | Generate innovative ideas drawing on research. Make design decisions based on time, cost and resources constraints.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | by adding or substituting one or more ingredients.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Year 6<br>Emerging<br>End of key<br>phase | <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 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 a simple design specification to guide their thinking.</p> <p>b. Share and clarify ideas confidently, through discussion. Model ideas using prototypes and</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 materials. Accurately apply a range of finishing techniques, including those from art and design. Use</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.</p> | <p>Pupils use learning from science, mathematics and from several 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 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. Recognise a wide range of</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</p> |

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|                        | <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 design decisions based on time, cost and resources constraints.</p> | <p>techniques that involve a number of steps. Use resourcefulness and resilience when tackling practical problems.</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>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. 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 different ingredients.</p>    | <p>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, minerals and nutrients. Understand that healthy diets must incorporate the correct amounts of food types and substances.</p>                                              |
| <p>Year 6 Expected</p> | <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 design criteria and use this to</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. b. Follow procedures for safety and hygiene. Use an extensive range of materials and</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, manufacture and fitness for purpose of their products. Evaluate their ideas and products against their original design specification.</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. Know that mechanical and electrical systems have an input, process and output. Know how mechanical systems such as levers and</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. b. Know how to prepare and cook a variety of savoury and some sweet dishes safely and</p> |

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|                 | <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> | <p>components e.g. textiles, mechanical, construction kits, electrical and food ingredients. Measures, marks out, cuts and shapes materials and components with accuracy. Accurately assemble, joins and combines materials. 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>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. 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>linkages create movement. Know that simple electrical circuits and components can be used to create functional products. 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. 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. 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>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, minerals and nutrients. Understand that healthy diets must incorporate the correct amounts of food types and substances. Understand that exercise is also important for our wellbeing and fitness.</p> |
| Year 6 Exceeded | a.Work confidently in a wide range of contexts, e.g. home, school,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | a.Confidently select tools and equipment suitable to the task. Explain their                                                                                                                                                                                                                                                                                                                                                                                                                                             | a.Confidently identify the strengths and areas for development in their ideas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Pupils use learning from science, mathematics and from several subjects and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | a.Know that food is farmed, reared, grown elsewhere (e.g. home,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



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| <p>Elements of KS3 skills</p> | <p>leisure, culture, industry, enterprise and wider environment. Describe in detail, the purpose of their products. Begin to consider the influence of a range of lifestyle factors and consumer choices when designing 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 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. Begin to identify and solve their own design problems. b.Share and clarify ideas confidently, through discussion. Model ideas using prototypes and pattern pieces. Use</p> | <p>choices, giving evidence. Selects materials and components suitable to the task. Produce appropriate lists of tools, equipment and materials that they will need. Produces ordered sequences and schedules for products they design. Formulate step-by-step plans as guide to making. Begin to make costings by using spreadsheet software packages. b.Follow procedures for safety and hygiene. Begin to understand risk assessments. Use an extensive range of more complex 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. Accurately apply a range of finishing techniques, including those from art and design. Use techniques that involve a number of steps. Use resourcefulness,</p> | <p>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. Begin to identify ways of improving their products. Actively involve others in the testing of their products. 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. Investigate and analyse: how much products cost to make; how innovative products are; how sustainable the materials</p> | <p>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. 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 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. 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</p> | <p>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. Begin to understand where food is produced and sold. That advertising and cost affects the choice of food eaten. Use food labels to store food. 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</p> |
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|  | <p>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. Begin to combine ideas from a variety of sources. Begin to use a variety of approaches to generate creative ideas.</p> | <p>resilience and innovation, when tackling practical problems. Explains next steps in learning, drawing from prior experience.</p> | <p>in products are; what impact products have beyond their intended purpose. Begin to investigate new and emerging technologies. Consider the positive and negative impact that products can have in the wider world. Recognise several inventors, designers, chefs, manufacturers and engineers, who have been influential in the design and technology industries.</p> | <p>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. Recreate and adapt existing and new recipes by adding or substituting a range of ingredients. Begin to know: the physical properties and how to classify materials by structure. Simple electronic components. Textile fibre sources.</p> | <p>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, minerals and nutrients. Understand that healthy diets must incorporate the correct amounts of food types and substances. Understand that exercise is also important for our wellbeing and fitness. Begin to know the importance of balanced diets and how to store, prepare and cook food safely and hygienically. How to minimise food waste and litter.</p> |
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