



Personal **R**esponsibility **I**n **D**elivering **E**xcellence

Design and Technology Progression Overview

Design and Technology Curriculum Coverage

| | | Nursery | Reception / F2 | Yr1 | Yr2 | Yr3 | Yr4 | Yr5 | Yr6 |
|---------------|-----------------------------|---|--|---|---|---|--|--|--|
| Design | Statutory NC Content | <p>Expressive Arts ad Design: Birth to 3: Use their imagination as they consider what they can do with different materials.</p> <p>3- and 4-Year-Olds: Develop their own ideas and then decide which materials to use to express them.</p> <p>Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p> | <p>Expressive Arts ad Design: Reception: Explore, use, and refine a variety of artistic effects to express their ideas and feelings.</p> <p>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Create collaboratively, sharing ideas, resources, and skills.</p> <p>Creating with materials: ELG: Share their creations, explaining the process they have used.</p> | <p>Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>Generate, develop, model, and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> | <p>Design purposeful, functional, appealing products for themselves and other users based on design criteria.</p> <p>Generate, develop, model, and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> | <p>Use research to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>Generate, develop, model, and communicate their ideas through discussion, annotated sketches.</p> | <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model, and communicate their ideas through discussion, annotated sketches.</p> | <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model, and communicate their ideas through prototypes, pattern pieces and computer-aided design.</p> | <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p>Generate, develop, model, and communicate their ideas through discussion, annotated sketches, cross-sectional, exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> |
| | Skills Content | <p>Make a creation with different materials.</p> | <p>Orally explain their creations and the process that they used.</p> <p>Work together to share ideas and equipment.</p> | <p>Design a purposeful product of their own.</p> <p>Plan an outcome through pictures and labels.</p> <p>Explain their ideas orally.</p> | <p>Design a purposeful, appealing, and functional product of their own.</p> <p>Generate, develop, and model and communicate their ideas for an innovative product through talking, drawing, mock-ups, and IT.</p> | <p>Identify a design criteria and establish a purpose/audience for their product.</p> <p>Plan and design using accurate diagrams and labels.</p> | <p>Create a final design for their product based on initial ideas, research and revisions based on existing products and ideas.</p> <p>Plan and design using accurate diagrams and labels and to be able to give fluent explanations of their choices and materials.</p> <p>When planning, consider their target audience, design criteria and intended purpose.</p> | <p>Identify their target audience and use this to generate ideas.</p> <p>Take a user's view into account when designing.</p> <p>Communicate their ideas through prototypes, pattern pieces and ICT.</p> <p>Produce a step-by-step plan for their design method.</p> <p>Suggest some alternative designs and compare the benefits and drawbacks to inform the design process and outcome.</p> | <p>Carry out research to inform their plans e.g. surveys, interviews, questionnaires, internet resources.</p> <p>Justify their plan to someone else and communicate their design ideas using annotated sketches, cross sectional diagrams, exploded diagrams prototypes, pattern pieces, ICT, and other methods.</p> |

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| Design | Retrieval of prior knowledge (including procedural knowledge) | Experiences / Reading presumed: Experiences of having looked at and used toys and building blocks/stacking cups to have an awareness of things that can be made. | The same materials can be used to make different creations. (F1) | Steps need to be followed to make a creation. (F2) Share ideas and listen to others. (F2) | Know how to add labels to a diagram. (Year 1) Labels tell us information about our end outcome. (Year 1) Products must fit against a set of criteria (guidelines) (Year 1) Ideas can be changed when designing an end outcome. (Year 1) | Labels tell us information about our end outcome. (Year 1) Products must fit against a set of criteria (guidelines) (Year 1) Ideas can be changed when designing an end outcome. (Year 1) A product needs look attractive to an audience. (Year 2) A product needs to be functional for its purpose. (Year 2) Ideas for designs can be recorded by drawing, talking, and using computers. (Year 2) | Products must fit against a set of criteria (guidelines) (Year 1) Ideas for designs can be recorded by drawing, talking, and using computers. (Year 2) The audience are people that use the product. (Year 3) The purpose is the reason for making the product. (Year 3) Labels tell us what materials will be used, what colours will be used, what equipment is needed. (Year 3) | Ideas can be changed when designing an end outcome. (Year 1) Ideas for designs can be recorded by drawing, talking, and using computers. (Year 2) A targeted audience is a specific group of people. (Year 4) Ideas can come from books, the internet, pictures, and existing products. (Year 4) | Know that a user's opinion is important when creating a design. (Year 5) Ideas for designs can be recorded by prototypes, patterns, and computers. (Year 5) Designs can have both strengths and weaknesses leading to changes sometimes being needed to make the end outcome successful. (Year 5) |
| | New Knowledge (including procedural knowledge) | The same materials can be used to make different creations. | Steps need to be followed to make a creation. Share ideas and listen to others. | Know how to add labels to a diagram. Labels tell us information about our end outcome. Products must fit against a set of criteria (guidelines) Ideas can be changed when designing an end outcome. | A product needs to look attractive to an audience. A product needs to be functional for its purpose. Ideas for designs can be recorded by drawing, talking, and using computers. | Labels tell us what materials will be used, what colours will be used, what equipment is needed. The audience are people that use the product. The purpose is the reason for making the product. | A final design is the product that gets made. Ideas can come from books, the internet, pictures, and existing products. Labels need to be accurate and detailed so that ideas are clear. A targeted audience is a specific group of people. An intended purpose needs to fit with the design criteria. | Know that a user's opinion is important when creating a design. Ideas for designs can be recorded by prototypes, patterns, and computers. Designs can have both strengths and weaknesses leading to changes sometimes being needed to make the end outcome successful. | Research can be carried out using surveys, questionnaires, interviews, books, photographs, diagrams, and the internet. An exploded diagram is a design broken down into specific sections. A cross sectional diagram is a sideways view of a design. An annotated sketch is a sketch with labels. |

| | | Nursery | Reception / F2 | Yr1 | Yr2 | Yr3 | Yr4 | Yr5 | Yr6 |
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| Make | Statutory NC Content | <p>Personal, Social and Emotional Development: 3- and 4-Year-Olds: Select and use activities and resources, with help when needed.</p> <p>Understanding the World: Birth to 3: Explore materials with different properties.</p> <p>3- and 4-Year-Olds: Explore collections of materials with similar and/or different properties. Explore how things work.</p> <p>Physical Development: Birth to 3: Develop manipulation and control. Explore different materials and tools.</p> <p>3- and 4-Year-Olds: Use large-muscle movements to ...paint and make marks. Choose the right resources to carry out their own plan. Use one-handed tools and equipment, for example, making snips in paper with scissors.</p> <p>Expressive Arts ad Design: Birth to 3: Explore paint.... using brushes and other tools Explore different materials, using all their senses to investigate them. Manipulate and play with different materials. Make simple models which express their ideas.</p> <p>3- and 4-Year-Olds: Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.</p> | <p>Physical Development: Reception aged children: Progress towards a more fluent style of moving, with developing control. Develop their small motor skills so that they can use a range of tools competently, safely, and confidently. Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.</p> <p>Fine Motor Skills: ELG: Use a range of small tools, including scissors, paintbrushes.</p> <p>Expressive Arts ad Design: Reception: Explore, use, and refine a variety of artistic effects to express their ideas and feelings. Create collaboratively, sharing ideas, resources, and skills.</p> <p>Creating with materials: ELG: Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form, and function.</p> | <p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials and ingredients, according to their characteristics.</p> | <p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities.</p> | <p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing] with increased accuracy.</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities.</p> | <p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing] with increased accuracy.</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities.</p> | <p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing] accurately.</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities.</p> | <p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining, and finishing], accurately.</p> <p>Select from and use a wider range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities.</p> |
| | Skills Content | <p>Explore materials and their properties.</p> <p>Use a variety of small and large tools.</p> <p>Make models using different building materials.</p> | <p>Develop fine motor skills to use tools more accurately.</p> <p>Use a range of small tools more accurately.</p> <p>Explore and experiment with materials and their properties.</p> | <p>Select appropriate resources and tools.</p> <p>Explain which tool they are using and why.</p> <p>Use tools safely.</p> | <p>Select appropriate resources and tools from a wider range.</p> <p>Join materials and components together in different ways.</p> | <p>Use equipment and tools accurately and safely.</p> <p>Select the most appropriate tools and techniques to use.</p> <p>Manipulate materials using a range of tools and equipment.</p> | <p>Use equipment and tools with increased accuracy and safety.</p> <p>Select the most effective materials, tools, and techniques to use.</p> <p>Manipulate materials effectively and accurately using a range of tools and equipment.</p> | <p>Choose appropriate tools and materials to ensure that the final product will appeal to the audience.</p> <p>Utilise a range of tools and equipment with good accuracy and effectiveness.</p> | <p>Choose tools and materials to ensure that the final product will appeal to the audience.</p> <p>Utilise a range of tools and equipment with good accuracy and effectiveness.</p> <p>Identify and begin to explore specialist tools, techniques, and processes.</p> |

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| Make | Retrieval of prior knowledge (including procedural knowledge) | <p>Experiences / Reading presumed: Knowledge of a range of materials and objects and a knowledge of construction types such as moving and non-moving.</p> | <p>Materials can be used to make different creations. (F1)</p> <p>Paint brushes are used for painting. (F1)</p> <p>Scissors are for cutting (F1)</p> | <p>Small tools are controlled using the fingers (F2)</p> <p>Big tools are controlled by the hand. (F2)</p> <p>Creations can be any design, size, shape, colour, texture, form. (F2)</p> | <p>Scissors are held in one hand and cut paper, cardboard, card, and string. (Year 1)</p> <p>Glue and sticky tape are used to join two pieces of materials together. (Year 1)</p> <p>Some materials are suitable, and some are not depending on what you are making. (Year 1)</p> | <p>Materials can be joined using staples, glue, tape, string, and split pins. (Year 2)</p> <p>Materials have different properties and can be used for different purposes. Some materials are waterproof, some are opaque, some are transparent, some are strong. Materials can have different thicknesses. (Year 2)</p> <p>Scissors are held in one hand and cut paper, cardboard, card, and string. (Year 1)</p> <p>You should not run or walk around with scissors. (Year 1)</p> | <p>A ruler can be used to accurately measure materials to match the size listed on the design criteria. (Year 3)</p> <p>Materials can be joined using staples, glue, tape, string, and split pins. (Year 2)</p> <p>Materials have different properties and can be used for different purposes. Some materials are waterproof, some are opaque, some are transparent, some are strong. Materials can have different thicknesses. (Year 2)</p> | <p>Saws have teeth that are used to saw through pieces of wood. (Year 4)</p> <p>Sandpaper can be used to smooth rough sections of wood and curve edges. (Year 4)</p> <p>Wood is used to make sturdy structures and models. (Year 4)</p> <p>Saws are used with fingers out of the way of the teeth when cutting. (Year 4)</p> <p>There are lots of types of wood that could be used to make structures and models (Bolster wood.) (Year 4)</p> | <p>Needles are sharp and should only be used sitting down. (Year 3)</p> <p>Needles are threaded through the eye with cotton and the cotton is knotted at the end so it cannot pull through the material being stitched together. (Year 3)</p> <p>There are several stitching techniques including running stitch, back stitch, and chain stitch. (Year 3)</p> <p>Needles come in different thicknesses and a suitable thickness should be selected depending on the thickness of material. (Year 3)</p> <p>A final product must appeal to an audience. (Year 5)</p> <p>Some materials will be more appealing than others when making their final product. (Year 5)</p> |
| | New Knowledge (including procedural knowledge) | <p>Materials have different properties.</p> <p>Materials can be used to make different creations.</p> <p>Paint brushes are used for painting.</p> <p>Scissors are for cutting.</p> <p>Blocks are for building.</p> <p>Tools can be used in one hand or both hands.</p> | <p>Small tools are controlled using the fingers.</p> <p>Big tools are controlled by the hand.</p> <p>Creations can be any design, size, shape, colour, texture, form.</p> | <p>Scissors are held in one hand and cut paper, cardboard, card, and string.</p> <p>Glue and sticky tape are used to join two pieces of materials together.</p> <p>You should not run or walk around with scissors.</p> <p>Some materials are suitable, and some are not depending on what you are making.</p> | <p>Materials can be joined using staples, glue, tape, string, and split pins.</p> <p>Materials have different properties and can be used for different purposes. Some materials are waterproof, some are opaque, some are transparent, some are strong. Materials can have different thicknesses.</p> | <p>A ruler can be used to accurately measure materials to match the size listed on the design criteria.</p> <p>Needles are sharp and should only be used sitting down.</p> <p>Needles are threaded through the eye with cotton and the cotton is knotted at the end so it cannot pull through the material being stitched together.</p> <p>There are several stitching techniques including running stitch, back stitch, and chain stitch.</p> <p>Needles come in different thicknesses and a suitable thickness should be selected depending on the thickness of material.</p> | <p>Saws have teeth that are used to saw through pieces of wood.</p> <p>Sandpaper can be used to smooth rough sections of wood and curve edges.</p> <p>Wood is used to make sturdy structures and models.</p> <p>Saws are used with fingers out of the way of the teeth when cutting.</p> <p>There are lots of types of wood that could be used to make structures and models (Bolser wood.)</p> | <p>A final product must appeal to an audience.</p> <p>Some materials will be more appealing than others when making their final product.</p> | <p>Glue guns are hot and need to be used safely.</p> <p>Glue guns can join a range of materials: Wood, plastic, decorations to designs.</p> <p>Specialist tools will only do certain jobs: Bradawl to make holes, Philips, and flat head screwdrivers to install and remove screws.</p> |

| | | Nursery | Reception / F2 | Yr1 | Yr2 | Yr3 | Yr4 | Yr5 | Yr6 |
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| Evaluate | Statutory NC Content | <p>Physical Development: 3- and 4-Year-Olds: Choose the right resources to carry out their own plan.</p> <p>Expressive Arts ad Design: Design: 3- and 4-Year-Olds: Explore different materials freely, to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them.</p> | <p>Expressive Arts ad Design: Reception: Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Creating with materials: ELG: Share their creations, explaining the process they have used.</p> | <p>Explore and evaluate a range of existing product.</p> <p>Evaluate their ideas and products against design criteria.</p> | <p>Explore and evaluate a range of existing products.</p> <p>Evaluate their ideas and products against design criteria.</p> | <p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p> | <p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p> | <p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p> | <p>Investigate and analyse a range of existing products.</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p> <p>Understand how key events and individuals in design and technology have helped shape the world.</p> |
| | Skills Content | <p>Choose their own resources to carry out their ideas.</p> <p>Explore materials.</p> <p>Develop their ideas when making their creations.</p> | <p>Choose resources to carry out their ideas with more accuracy.</p> <p>Explain their creations and their design and make processes.</p> | <p>Say why an existing product work well.</p> <p>Describe how their product works. Identify successes and next steps.</p> | <p>Describe how and why an existing product works well.</p> <p>Assess how well their products work.</p> <p>Explain what they would change if they were going to make the product again.</p> | <p>Evaluate critically existing products.</p> <p>Think about their ideas as they make progress and be willing to make changes if this helps them to improve their work.</p> <p>Explain how well their product works in relation to its purpose.</p> <p>Explain how they could change their design to make it better.</p> | <p>Think about their ideas as they progress and alter the design to make improvements.</p> <p>Assess how well their product works in relation to the design criteria and intended purpose.</p> <p>Explain how they could improve their design and how improvements would affect the original outcome.</p> | <p>Continuously check that their design is effective and fit for purpose.</p> <p>Assess how well their product works in relation to the design criteria and intended purpose and suggest improvements.</p> <p>Evaluate appearance and function against their original design criteria.</p> | <p>Test and evaluate their final product.</p> <p>Explain why it fits their purpose.</p> <p>Explore if different purposes could have improved their product, explaining why it would have improved.</p> <p>Research and explore what information they would need to make improvements.</p> <p>Ensure their product meets all design criteria and explain why it does.</p> <p>Identify and understand the impact the product has on individuals, society, and the environment.</p> |

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| Evaluate | Retrieval of prior knowledge (including procedural knowledge) | Experiences / Reading presumed: Seeing broken toys and packaging. Experiences of different clothing types and having it wet and dry. | Different materials will be suitable for different creations. (F1) | Talking about their design will show others' the purpose of it. (F1) | A product works well if it does the job it is supposed to do. (Year 1) Final products will sometimes need changes next time to make them better. (Year 1) | There are a variety of products that do the same job in different ways. (Year 2) Some products do the job better than others. (Year 2) Meeting an existing success criterion shows if the final product was successful. (Year 2) | ideas can be changed if their design is not working. (Year 3) Meeting their own success criteria shows if the final product was successful. (Year 3) Final products will sometimes need changes next time to make them better, (Year 1) | ideas can be changed if their design is not working. (Year 3) Meeting their own success criteria shows if the final product was successful. (Year 3) Different opinions on a product will need to be considered when evaluating (Year 4) | A product can be evaluated against different design criteria. (Year 5) |
| | New Knowledge (including procedural knowledge) | Different materials will be suitable for different creations. Ideas can change. | Talking about their design will show others' the purpose of it. | Products are made to do a certain job. A product works well if it does the job it is supposed to do. Final products will sometimes need changes next time to make them better, | There are a variety of products that do the same job in different ways. Some products do the job better than others. Meeting an existing success criterion shows if the final product was successful. | Ideas can be changed if their design is not working. Meeting their own success criteria shows if the final product was successful. | Different opinions on a product will need to be considered when evaluating. | Appearance is what a product looks like. Function is how well a product works. A product can be evaluated against different design criteria. | Testing a product will show how well it works. Research to help improvements can be done in different ways: Internet, pictures, magazines, articles, existing products. A product will have an effect. users and the environment these can be both positive and negative. |

| | | Nursery | Reception / F2 | Yr1 | Yr2 | Yr3 | Yr4 | Yr5 | Yr6 |
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| Technical Knowledge | Statutory NC Content | <p>Understanding the World: Birth to 3: Explore materials with different properties.</p> <p>3- and 4-Year-Olds: Explore collections of materials with similar and/or different properties. Explore how things work.</p> <p>Physical Development: Birth to 3: Explore different materials and tools.</p> <p>Expressive Arts ad Design: 3- and 4-Year-Olds: Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. Explore different materials freely, to develop their ideas about how to use them and what to make.</p> | <p>Expressive Arts ad Design: Reception: Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Creating with materials: ELG: Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form, and function.</p> | Build structures, exploring how they can be made stronger, stiffer, and more stable. | Build structures, exploring how they can be made stronger, stiffer, and more stable. Explore and use mechanisms [for example, levers, sliders, wheels, and axles], in their products. | Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products (gears, pulleys, cams.) | Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use electrical systems in their products (more complex series circuits incorporating switches, bulbs, buzzers, and motors) Apply their understanding of computing to program, monitor and control their products. | Understand and use mechanical systems in their products (levers and linkages) Apply their understanding of computing to program, monitor and control their products. | Build understanding to apply all aspects of technical knowledge from the program of study across key stage 2 phase. Apply their understanding of computing to program, monitor and control their products. |

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| Technical Knowledge | Skills Content | <p>Explore materials and their properties.</p> <p>Explore similarities and differences between properties.</p> <p>Explore materials to develop ideas.</p> | <p>Explore materials and their properties with more accuracy.</p> <p>Explore materials, tools and techniques experimenting with colour, design, texture, form, and function.</p> | <p>Make a structure/model using different materials.</p> <p>Explore with different materials how their structure/model can be made stronger/stiffer/more stable.</p> | <p>Make sensible choices of which material to use for their product.</p> <p>Identify how to make their structure/model can be made stronger/stiffer/more stable.</p> <p>Explore and use mechanisms within their product.</p> | <p>Join materials effectively to build a more complex structure.</p> <p>Explore and use mechanical systems within their product.</p> | <p>Measure and join materials effectively to build a more complex structure.</p> <p>Use a range of techniques to shape and mould.</p> <p>Experiment with a range of techniques to increase stability in their structure.</p> | <p>Measure accurately to ensure precision.</p> <p>Demonstrate that their product is strong and fit for purpose.</p> <p>Refine and further improve their product.</p> | <p>Apply measurements accurately to scale, according to design plans, ensuring precision.</p> <p>Evaluate and demonstrate that their product is strong and fit for purpose.</p> <p>Refine and further improve their product.</p> <p>Identify and address their own design problems during the construction process.</p> |
| | Retrieval of prior knowledge (including procedural knowledge) | <p>Experiences / Reading presumed: Sensory exploration including touch and sight.</p> | <p>Different materials have different properties. (F1)</p> <p>Some materials have the same properties, and some have different properties. (F1)</p> | <p>Materials can be grouped according to their properties. (F2)</p> | <p>Structures can be made stronger, stiffer by using a broader base. (Year 1)</p> | <p>Structures can be made stronger, stiffer, and more stable by using cardboard rather than paper and triangular shapes rather than squares. (Year 3)</p> | <p>Various methods can be used to support a framework. (Year 4)</p> | <p>Various methods can be used to support a framework. These include cross braces, guy ropes and diagonal struts.</p> <p>Frameworks can be built using lolly sticks, skewers, and bamboo canes. (Year 4)</p> | <p>Measuring in mm is the smallest unit of measure and will increase accuracy. (Year 5)</p> <p>Testing with weights will demonstrate if the product is strong. (Year 5)</p> |

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| Technical Knowledge | New Knowledge (including procedural knowledge) | <p>Different materials have different properties.</p> <p>Some materials have the same properties, and some have different properties.</p> <p>Ideas will develop and change when designing and making.</p> | <p>Materials can be grouped according to their properties.</p> | <p>Structures can be made stronger, stiffer by using a broader base.</p> | <p>Structures can be made stronger, stiffer, and more stable by using cardboard rather than paper and triangular shapes rather than squares.</p> <p>A mechanism is a system of parts that is work together in a machine.</p> | <p>Various methods can be used to support a framework.</p> <p>A mechanical system is a device in which a motion is inputted which transforms and a motion is outputted. For example:</p> | <p>Various methods can be used to support a framework. These include cross braces, guy ropes and diagonal struts.</p> <p>Frameworks can be built using lolly sticks, skewers, and bamboo canes.</p> | <p>Measuring in mm is the smallest unit of measure and will increase accuracy.</p> <p>Testing with weights will demonstrate if the product is strong.</p> | <p>The scale of a drawing is a drawing of an object reduced or enlarged in its size.</p> |
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| | | Cooking and Nutrition | | Statutory NC Content | <p>Physical Development: Birth to 3: Explore different materials and tools.</p> <p>3- and 4-Year-Olds: Make healthy choices about food and drink.</p> | <p>Physical Development: Reception aged children: Develop their small motor skills so that they can use a range of tools competently, safely, and confidently.</p> <p>Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.</p> <p>Fine Motor Skills: ELG: Use a range of small tools, including cutlery.</p> | <p>Use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>Understand where food comes from</p> | <p>Use the basic principles of a healthy and varied diet to prepare dishes.</p> <p>Understand where food comes from</p> | <p>Understand and apply the principles of a healthy and varied diet.</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</p> | <p>Understand and apply the principles of a healthy and varied diet.</p> <p>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> |
| Skills Content | <p>Know what a knife, fork and spoon are.</p> | | | <p>Use a knife, fork, and spoon to eat food.</p> <p>Sit at a table with two feet on the floor.</p> <p>Sit upright on the floor.</p> <p>Use a knife to cut with.</p> <p>Use a spoon to mix with.</p> | <p>Explain where different foods originate from.</p> <p>Understand that all food comes from plants or animals.</p> <p>Understand that everyone should eat at least five portions of fruit and vegetables every day.</p> <p>Work safely and hygienically.</p> | <p>Cut, grate, peel and chop a range of ingredients.</p> <p>Work safely and hygienically.</p> <p>Understand the need for a variety of foods within the diet.</p> <p>Measure and weight food items using non-statutory measures e.g. spoons and cups.</p> <p>Understand that food must be farmed, caught, or grown for us to eat.</p> | <p>Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically.</p> <p>Use a range of techniques such as mashing, whisking, crushing, grating, cutting, kneading, and baking.</p> <p>Explain that a healthy diet is made up of a variety and balance of different food and drink, as represented in the Eatwell Guide and be able to apply these principles when planning and cooking dishes.</p> <p>Understand that to be active and healthy, nutritious food and drink are needed to provide energy for the body.</p> | <p>Explain that foods contain different substances, such as protein, that are needed for health and be able to apply these principles when planning and preparing dishes.</p> <p>Know, explain, and give examples of food that is grown, reared, and caught in the UK.</p> <p>Prepare ingredients using appropriate cooking utensils.</p> <p>Measure and weigh ingredients to the nearest gram and millilitre.</p> <p>Start to independently follow a recipe.</p> <p>Use a heat source to cook ingredients showing awareness of the need to control the temperature of the hob and/or oven.</p> | <p>Understand about seasonality, how this may affect the food availability and plan recipes according to seasonality.</p> <p>Understand that food is processed into ingredients that can be eaten or used in cooking.</p> <p>Demonstrate how to use a range of cooking techniques, such as griddling, grilling, frying, and boiling.</p> <p>Alter methods, cooking times and/or temperatures.</p> <p>Independently follow a recipe.</p> | <p>Join and combine a variety of ingredients by beating or rubbing in.</p> <p>Work safely and hygienically.</p> <p>Decorate appropriately.</p> <p>Cut and shape ingredients using appropriate tools e.g. grating.</p> <p>Adapt and refine recipes by adding or substituting one or more ingredients to change the appearance, taste, texture, and aroma.</p> <p>Measure accurately and calculate ratios of ingredients to scale up or down from a recipe</p> |

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| Cooking and Nutrition | Retrieval of prior knowledge (including procedural knowledge) | <p>Experiences / Reading presumed: Experiences of having tried variety of foods and drinks.</p> <p>Knowledge of different foods / drinks</p> | <p>We eat using a knife, fork, and spoon. (F1)</p> <p>We have fruit for a healthy snack. (F1)</p> <p>Water and milk are healthy drinks. (F1)</p> | <p>A spoon is used for mixing. (F2)</p> <p>A knife is used for cutting. (F2)</p> <p>A knife and fork are used together when eating food. (F2)</p> | <p>We wash our hands before cooking to make sure they are clean and free of germs. (Year 1)</p> <p>We tie our long hair up to keep us safe from any equipment and to keep our food clean. (Year 1)</p> <p>We need to eat at least 5 portions of fruit and vegetables every day to stay healthy. (Year 1)</p> <p>Food that we eat comes from plants and animals. (Year 1)</p> <p>A knife is used for cutting. (F2)</p> | <p>We wash our hands before cooking to make sure they are clean and free of germs. (Year 1)</p> <p>We tie our long hair up to keep us safe from any equipment and to keep our food clean. (Year 1)</p> <p>We need to eat at least 5 portions of fruit and vegetables every day to stay healthy. (Year 1)</p> <p>Plants are grown for us to eat. (Year 2)</p> <p>Animals are farmed for us to eat. (Year 2)</p> <p>Fish are caught for us to eat. (Year 2)</p> | <p>A healthy diet consists of eating carbohydrates, proteins, fruit/vegetables, fats, and dairy products. (Year 3)</p> <p>1/3 of our plate should be fruit and vegetables, 1/3 of our plate should be carbohydrates and the rest of the plate is made up of proteins, fats, and dairy. (Year 3)</p> <p>Food and water provide the body with energy to function. (Year 3)</p> <p>When making something, we must measure the ingredients. (Year 2)</p> <p>We need to eat at least 5 portions of fruit and vegetables every day to stay healthy. (Year 1)</p> <p>Plants are grown for us to eat. (Year 2)</p> <p>Animals are farmed for us to eat. (Year 2)</p> <p>Fish are caught for us to eat. (Year 2)</p> | <p>We wash our hands before cooking to make sure they are clean and free of germs. (Year 1)</p> <p>When making something, we must measure the ingredients. (Year 2)</p> <p>A healthy diet consists of eating carbohydrates, proteins, fruit/vegetables, fats, and dairy products. (Year 3)</p> <p>1/3 of our plate should be fruit and vegetables, 1/3 of our plate should be carbohydrates and the rest of the plate is made up of proteins, fats, and dairy. (Year 3)</p> <p>Cattle and poultry are reared, fruit and vegetables such as pears, strawberries and potatoes are grown and fish such as salmon are caught in the UK. (Year 4)</p> | <p>Seasonal food is food that is readily available at certain times of the year in the area that you live. (Year 5)</p> <p>Seasonal food is not the same in other parts of the world. Some foods that are in season where you live, will not be available in other parts of the world. (Year 5)</p> <p>Some foods that are not in season in the UK during the year are readily available all year due to importing them. (Year 5)</p> <p>We wash our hands before cooking to make sure they are clean and free of germs. (Year 1)</p> <p>We tie our long hair up to keep us safe from any equipment and to keep our food clean. (Year 1)</p> |
| | New Knowledge (including procedural knowledge) | <p>We eat using a knife, fork, and spoon.</p> <p>We have fruit for a healthy snack.</p> <p>Water and milk are healthy drinks.</p> | <p>A spoon is used for mixing.</p> <p>A knife is used for cutting.</p> <p>A knife and fork are used together when eating food.</p> | <p>We need to eat at least 5 portions of fruit and vegetables every day to stay healthy.</p> <p>Food that we eat comes from plants and animals.</p> <p>Beef comes from a cow; pork comes from a pig and chicken comes from a chicken.</p> <p>We wash our hands before cooking to make sure they are clean and free of germs.</p> <p>We tie our long hair up to keep us safe from any equipment and to keep our food clean.</p> | <p>We eat different types of foods to keep us healthy. Some foods are good for us and some foods are not good for us.</p> <p>When making something, we must measure the ingredients.</p> <p>Plants are grown for us to eat.</p> <p>Animals are farmed for us to eat.</p> <p>Fish are caught for us to eat.</p> | <p>A healthy diet consists of eating carbohydrates, proteins, fruit/vegetables, fats, and dairy products.</p> <p>1/3 of our plate should be fruit and vegetables, 1/3 of our plate should be carbohydrates and the rest of the plate is made up of proteins, fats, and dairy.</p> <p>Food and water provide the body with energy to function.</p> <p>Mashing is used for potatoes, whisking is used for eggs, grating is used for carrots, cutting is used for vegetables, kneading is used for dough and baking is used for cakes.</p> | <p>There are lots of nutrients in food we need to stay healthy.</p> <p>Our bodies need protein to build and repair muscles.</p> <p>Our bodies need dairy as it is full of calcium for strong and healthy bones.</p> <p>Carbohydrates provide our bodies with energy.</p> <p>Fruits and vegetables are a good source of vitamins and minerals.</p> <p>Fats give our bodies energy.</p> <p>Cattle and poultry are reared, fruit and vegetables such as pears, strawberries and potatoes are grown and fish such as salmon are caught in the UK.</p> | <p>Seasonal food is food that is readily available at certain times of the year in the area that you live.</p> <p>Seasonal food is not the same in other parts of the world. Some foods that are in season where you live, will not be available in other parts of the world.</p> <p>Some foods that are not in season in the UK during the year are readily available all year due to importing them.</p> <p>Frying and boiling are on the hob using a pan.</p> <p>Grilling is done using the grill in the oven.</p> <p>Different foods require different cooking temperatures and times.</p> | <p>We use scaling when adapting the recipe e.g., for 2, 4, 6 people.</p> <p>When scaling up for a recipe, we multiply.</p> <p>When scaling down for a recipe, we divide.</p> <p>Rubbing is when you use your fingers to rub fats into dry ingredients such as flour.</p> |