

| DT LTP | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| Reception | <u>All about me</u> Make use of props and materials when role playing characters in narratives and stories. | <u>Terrific Tales</u> Cooking - baking bread and gingerbread men | <u>Amazing animals</u> Making different hibernation habitats | <u>Come outside</u> Junk modelling Bug hotel Fastenings | <u>Ticket to ride</u> Junk modelling Making own transport | <u>Fun at the seaside</u> Make own clay fossils Food tasting |
| Year 1 | <u>Smoothie</u> Food Master Practical Skills Cut, peel and grate ingredients safely and hygienically. Measure or weigh using measuring cups or scales. Assemble or cook ingredients. Design, make, evaluate and improve Design products that have a clear purpose and have an intended user. | | | Mechanics and Materials Master Practical Skills <ul style="list-style-type: none"> • Create products using levers, wheels and winding mechanisms. • Cut materials safely using tools provided. • Measure and mark out to the nearest centimetre. • Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). • Demonstrate a range of joining techniques (such as glueing, hinges or | | <u>Frame Structures.</u> Construction Design and make a swing. <ul style="list-style-type: none"> • Analyse and annotate existing products for inspiration and understanding. • Design products that have a clear purpose and an intended user. • Suggest improvements to existing designs. • Make products, refining the design as work progresses. • Cover all the different types of structure for evaluative process, nuanced understanding and analysis. |

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| | <p>Make products, refining the design as work progresses.</p> <p>Take inspiration from design throughout history</p> <p>Explore how products have been created.</p> <p>Explore objects and designs to identify likes and dislikes.</p>  | | | <p>combining materials to strengthen).</p> <p>Design, make, evaluate and improve</p> <ul style="list-style-type: none"> • Design products that have a clear purpose and an intended user. • Make products, refining the design as work progresses. <p>Take inspiration from design throughout history</p> <p>Explore how products have been created.</p> <p>Explore objects and designs to identify likes and dislikes.</p> | | <ul style="list-style-type: none"> • Finger Fluency: children need to work on building skills |
| Year 2 | <p><u>Levers</u> *</p> <p><u>Master Practical Skills</u></p> <p><u>Materials</u> Cut materials safely using tools provided. Measure and mark</p> | | <p><u>Portable Snacks</u> *</p> <p>Designing, creating and evaluating a portable snack (pizza)</p> <p><u>Master Practical Skills</u></p> <p>Food</p> | | <p><u>Textiles</u> *</p> <p>Designing, create and evaluating a pouch</p> <p><u>Master Practical Skills</u></p> <p>Textiles</p> <p>Shape textiles using templates.</p> | |

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| | <p>out to the nearest centimetre.</p> <p>Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).</p> <p>Demonstrate a range of joining techniques (such as glueing, using hinges or combining materials to strengthen).</p> <p><u>Take inspiration from design</u> Explore objects and designs to identify likes and dislikes. Suggest improvements to existing designs. Explore how products have been created.</p> <p><u>Design, make, evaluate and improve</u></p> <p>Design products that have a clear purpose and an intended user. Make products, refining the design as work progresses.</p> | | <ul style="list-style-type: none"> • Cut, peel and grate ingredients safely and hygienically. • Measure or weigh using measuring cups or scales. • Assemble or cook ingredients. <p><u>Design, make, evaluate, and improve</u></p> <p>Design products that have a clear purpose and an intended user. Make products, refining the design as work progresses. Use software to design.</p> <p><u>Take inspiration from design throughout history</u></p> <p>Explore objects and designs to identify likes and dislikes of the designs. Suggest improvements to existing designs. Explore how products have been created</p> | | <p>Join textiles using running stitch. Colour and decorate textiles using a number of techniques (adding sequins).</p> <p><u>Take inspiration from design throughout history</u></p> <p>Explore objects and designs to identify likes and dislikes of the designs. Suggest improvements to existing designs. Explore how products have been created</p> <p><u>Design, make, evaluate and improve</u></p> <p>Design products that have a clear purpose and an intended user. Make products, refining the design as work progresses. Use software to design.</p> <p>Making a pouch</p> | |
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| Year 3 | | <p>Food</p> <p>Dips for a Christmas party</p> <p>Prepare ingredients hygienically using appropriate utensils. Measure ingredients to the nearest gram accurately. Follow a recipe. Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).</p> <p><u>Design, make evaluate and improve</u></p> <p>Design with purpose by identifying opportunities to design. Make products by working efficiently (such as by carefully selecting materials). Refine work and techniques as work progresses, continually evaluating the product design.</p> | | <p>Pneumatic monsters</p> <p>Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears). Design with purpose by identifying opportunities to design. Make products by working efficiently (such as by carefully selecting materials).</p> <p><u>Design, make evaluate and improve</u></p> <p>Design with purpose by identifying opportunities to design. Make products by working efficiently (such as by carefully selecting materials). Refine work and techniques as work progresses, continually evaluating the product design.</p> | | <p>Textiles</p> <p>Egyptian collars</p> <p>Join textiles with appropriate stitching. Select the most appropriate techniques to decorate textiles.</p> <p><u>Design, make evaluate and improve</u></p> <p>Design with purpose by identifying opportunities to design. Make products by working efficiently (such as by carefully selecting materials). Refine work and techniques as work progresses, continually evaluating the product design. Use software to design and represent product designs.</p> |
| Year 4 | | <p><u>Paper circuits - Christmas cards</u> Electrical and Electronics</p> <p>Master Practical Skills</p> | | <p><u>Vegetable soup</u> Food</p> <p>Master Practical Skills</p> <ul style="list-style-type: none"> • Prepare ingredients hygienically | | <p><u>Construction</u> <u>Bridge structure</u> Construction</p> <p>Master Practical Skills</p> |

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| | | <ul style="list-style-type: none"> • Create series and parallel circuits <p>Design, make evaluate and improve</p> <ul style="list-style-type: none"> • Design with purpose by identifying opportunities to design. • Make products by working efficiently (such as by carefully selecting materials). • Refine work and techniques as work progresses, continually evaluating the product design. <p>Take inspiration from design throughout history</p> <ul style="list-style-type: none"> • Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. • Improve upon existing designs, giving reasons for choices. • Disassemble products to understand how they work. | | <p>using appropriate utensils.</p> <ul style="list-style-type: none"> • Measure ingredients to the nearest gram accurately. • Follow a recipe. • Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking). <p>Design, make evaluate and improve</p> <ul style="list-style-type: none"> • Design with purpose by identifying opportunities to design. • Make products by working efficiently (such as by carefully selecting materials). • Refine work and techniques as work progresses, continually evaluating the product design. • Use software to design and represent product designs. <p>Take inspiration from design throughout history</p> <ul style="list-style-type: none"> • Identify some of the great designers in all of the areas of study (including pioneers in horticultural | | <ul style="list-style-type: none"> • Cut materials accurately and safely by selecting appropriate tools. • Measure and mark out to the nearest millimetre. • Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). • Select appropriate joining techniques. • Choose suitable techniques to construct products or to repair items. • Strengthen materials using suitable techniques. <p>Design, make evaluate and improve</p> <ul style="list-style-type: none"> • Design with purpose by identifying opportunities to design. • Make products by working efficiently (such as by carefully selecting materials). • Refine work and techniques as work progresses, continually evaluating the product design. |
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| | | | | <p>techniques) to generate ideas for designs.</p> <ul style="list-style-type: none"> • Improve upon existing designs, giving reasons for choices. • Disassemble products to understand how they work. | | <ul style="list-style-type: none"> • Use software to design and represent product designs. <p>Take inspiration from design throughout history</p> <ul style="list-style-type: none"> • Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs. • Improve upon existing designs, giving reasons for choices. • Disassemble products to understand how they work. |
| Year 5 | | <p><u>Ancient Greece - marble labyrinths</u> Construction</p> <p>Take inspiration from design throughout history.</p> <ul style="list-style-type: none"> • Look at old fashioned marble maze games, what helps them to work (gravity)? what is appealing? Colour? design? Complexity? <p>Master Practical Skills</p> | | <p><u>Shackleton - making energy bars for a polar scientist.</u> Food</p> <p>Take inspiration from modern day design</p> <ul style="list-style-type: none"> • Take inspiration from existing products (energy bars). Examine packaging, taste the items. Think about a product's purpose, the users and how it is designed. | | <p><u>Ironbridge - make cloth bags to carry Jackfields tiles.</u></p> <p>Textiles and Materials</p> <p>Take inspiration from design throughout history.</p> <ul style="list-style-type: none"> • Examine examples of soft cloth bags from victorian era. What stitching was used? What material? Why is it |

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| | | <ul style="list-style-type: none"> • Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding). <p>Design, make, evaluate and improve</p> <ul style="list-style-type: none"> • Make labyrinths. Wooden structures. • Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding) • Assess the effectiveness of the product, evaluate and think about changes that could be made to improve | | <p>Master Practical Skills</p> <ul style="list-style-type: none"> • Demonstrate a range of baking and cooking techniques. • Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms). • Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. <p>Design, make, evaluate and improve</p> <ul style="list-style-type: none"> • Create and refine recipes, including ingredients, methods, cooking times and temperatures. • Taste and assess flavour, energy giving properties, ease of | | <p>effective? what could be improved?</p> <ul style="list-style-type: none"> • Look at more modern day examples of bags/purses. Pay attention to fastenings, stitching, material etc. <p>Master Practical Skills</p> <ul style="list-style-type: none"> • Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). • Choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper). |
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| | | | | <p>cooking, changes to product or to the process of making it.</p> | | <ul style="list-style-type: none"> • Create objects (such as a cushion) that employ a seam allowance. • Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). <p>Design, make, evaluate and improve</p> <ul style="list-style-type: none"> • Show an understanding of the qualities of materials • Choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper). • Use precise measurements to ensure the bag is fit for purpose. |
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| | | | | | | <ul style="list-style-type: none"> Assess/evaluate effectiveness of item created. suggested changes to improve the item. |
| Year 6 | | <p><u>Stollen</u> Food</p> <p>Take inspiration from design throughout history</p> <ul style="list-style-type: none"> Learn about the origins of stollen, its traditional use and links to christmas. Practical or traditional reasons for why certain ingredients were used. Taste samples and assess properties. <p>Master Practical Skills</p> <ul style="list-style-type: none"> Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. <p>Design, make, evaluate and improve</p> <ul style="list-style-type: none"> Create and refine recipes, including ingredients, methods, | <p><u>Anderson Shelters</u> Construction Materials</p> <p>Take inspiration from design throughout history</p> <ul style="list-style-type: none"> Examine the origins of Anderson Shelters, why they were used, how effective the materials were etc. <p>Master Practical Skills</p> <ul style="list-style-type: none"> Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). | | | <p><u>Fiver Challenge</u></p> <p>Subject areas vary according to what each team chooses to make. Covering:</p> <p>Food Construction Materials Mechanics Textiles Electricals and electronics</p> <p>Take inspiration from design throughout history</p> <ul style="list-style-type: none"> Children are self motivated to research their products, comparing them to and being inspired by existing products. <p>Master Practical Skills</p> |

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| | | <p>cooking times and temperatures.</p> <ul style="list-style-type: none"> • Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms). • Evaluate and improve recipes assessing ingredients, cooking times, practical issues. | <p>Design, make, evaluate and improve</p> <ul style="list-style-type: none"> • Show an understanding of the qualities of materials • Choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper). • Use prototypes, cross-sectional diagrams and computer aided designs to represent designs. <p><u>Wartime cooking</u></p> <p>Food</p> <p>Master Practical Skills</p> <ul style="list-style-type: none"> • Demonstrate a range of baking and cooking techniques. | | | <ul style="list-style-type: none"> • Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding). <p>Design, make, evaluate and improve</p> <ul style="list-style-type: none"> • Ensure products have a high quality finish, using art skills where appropriate. |
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| | | | <p>Design, make, evaluate and improve</p> <ul style="list-style-type: none">• Create and refine recipes, including ingredients, methods, cooking times and temperatures.• Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).• Evaluate and improve recipes assessing ingredients, cooking times, practical issues. | | | |
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