

Westgate Primary School – DT Long Term Planning

| /EYFS                                  | Autumn 1 | Autumn 2   | Spring 1 | Spring 2  | Summer 1 | Summer 2  |
|--|----------|--|----------|---|----------|---|
| <b>Topic Theme</b>                     |          | <b>Bears</b>   |          | <b>Healthy me</b>   |          | <b>Puppet Show</b>  |
| <b>DT Substantive Knowledge</b>        |          | <p><b><u>Structure – Baby Bears Chair</u></b></p> <p><b><u>Design and Evaluate</u></b></p> <ul style="list-style-type: none"> <li>To be able to choose appropriate materials to make a strong chair for Baby Bear.</li> <li>To be able to evaluate if their chosen materials made an effective chair for Baby Bear.</li> </ul> <p><b><u>Structures</u></b></p> <ul style="list-style-type: none"> <li>To be able to know what makes an effective chair.</li> <li>To be able to investigate the best material to make a strong chair.</li> </ul>      |          | <p><b><u>Food – Fruit Kebab</u></b></p> <p><b><u>Design and Evaluate</u></b></p> <ul style="list-style-type: none"> <li>To be able to choose their favourite fruits and design a simple fruit kebab.</li> <li>To be able to construct a simple fruit kebab and evaluate what they like and dislike.</li> </ul> <p><b><u>Food</u></b></p> <ul style="list-style-type: none"> <li>To be able to name a variety of fruits and recognise if they can be grown in the local area.</li> <li>To be able to taste a variety of fruits and explain which fruit they like and dislike.</li> </ul> |          | <p><b><u>Textiles – Sock puppet</u></b></p> <p><b><u>Design and Evaluate</u></b></p> <ul style="list-style-type: none"> <li>To be able to explore a range of puppets and describe what they like and don't like about them.</li> <li>To be able to use their sock puppet for storytelling and evaluate whether it was successful or not.</li> <li>To choose a character from a familiar story and design a sock puppet.</li> </ul> <p><b><u>Textiles</u></b></p> <ul style="list-style-type: none"> <li>To be able to recognise the importance of recycling and reusing different materials.</li> <li>To be able to join recycled materials to construct a sock puppet to support story telling.</li> </ul> |
| <b>Disciplinary Knowledge (Skills)</b> |          | <p><b><u>Design and Making</u></b></p> <p><b><u>Explore-</u></b> Experiment and build with a range of construction resources, find out about the properties and functions of different construction materials.</p> <p><b><u>Design -</u></b> Talk about their ideas, choose resources, tools and techniques with a purpose in mind.</p> <p><b><u>Make -</u></b> Make models and props using different construction materials e.g. construction kits, reclaimed materials. Experiment with different ways to build, construct and join resources.</p> |          | <p><b><u>Design and Making</u></b></p> <p><b><u>Explore-</u></b> Experiment and build with a range of construction resources, find out about the properties and functions of different construction materials.</p> <p><b><u>Design -</u></b> Talk about their ideas, choose resources, tools and techniques with a purpose in mind.</p> <p><b><u>Make -</u></b> Make models and props using different construction</p>  |          | <p><b><u>Design and Making</u></b></p> <p><b><u>Explore-</u></b> Experiment and build with a range of construction resources, find out about the properties and functions of different construction materials.</p> <p><b><u>Design -</u></b> Talk about their ideas, choose resources, tools and techniques with a purpose in mind.</p> <p><b><u>Make -</u></b> Make models and props using different construction materials e.g. construction kits, reclaimed materials. Experiment with different ways to build, construct and join resources. Make props to use in their play/role play/when acting out stories/ taking on story characters.</p>   |

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|                                 |                 | <p>Make props to use in their play/role play/when acting out stories/ taking on story characters.</p> <p><b>Evaluate</b> - Talk about what they like and dislike about their models/ constructions/props say why and how they would change them.</p> <p><b>Tools and Equipment</b> - Use equipment and tools to build, construct and make simple models and props; use tools and equipment linked to food preparation.</p> <p><b>Safety</b>- Handle and use equipment appropriately and safely.</p> |  | <p>materials e.g. construction kits, reclaimed materials. Experiment with different ways to build, construct and join resources. Make props to use in their play/role play/when acting out stories/ taking on story characters.</p> <p><b>Evaluate</b> - Talk about what they like and dislike about their models/ constructions/props say why and how they would change them.</p> <p><b>Tools and Equipment</b> - Use equipment and tools to build, construct and make simple models and props; use tools and equipment linked to food preparation.</p> <p><b>Safety</b>- Handle and use equipment appropriately and safely.</p> |                 | <p><b>Evaluate</b> - Talk about what they like and dislike about their models/ constructions/props say why and how they would change them.</p> <p><b>Tools and Equipment</b> - Use equipment and tools to build, construct and make simple models and props; use tools and equipment linked to food preparation.</p> <p><b>Safety</b>- Handle and use equipment appropriately and safely.</p>              |
| <b>Year 1</b>                   | <b>Autumn 1</b> | <b>Autumn 2</b>   | <b>Spring 1</b>  | <b>Spring 2</b>   | <b>Summer 1</b> | <b>Summer 2</b>  |
| <b>Topic Theme</b>              |                 | <b>Supertato</b>  | <b>Lost and found</b>  |   |                 | <b>Salads</b>  |
| <b>DT Substantive Knowledge</b> |                 | <p><b><u>Mechanisms- Sliders &amp; Levers</u></b><br/>Be able to generate ideas based on a simple criteria.</p> <ul style="list-style-type: none"> <li>Know the names of different materials e.g. fabric, wood, card, paper.</li> <li>Be able to use drawings to record ideas.</li> <li>Know and say own products meet the design criteria.</li> </ul> <p><b><u>Mechanisms</u></b></p> <ul style="list-style-type: none"> <li>Know that different mechanisms produce</li> </ul>                     | <p><b><u>Textiles (Templates and Joining) -</u></b><br/><b><u>Design and evaluate</u></b></p> <ul style="list-style-type: none"> <li>Be able to generate ideas based on a simple criteria.</li> <li>Know the names of different materials e.g. fabric, wood, card, paper.</li> </ul> |   |                 | <p><b><u>Food technology</u></b><br/><b><u>Design and evaluate</u></b></p> <ul style="list-style-type: none"> <li>Be able to generate ideas based on a simple criteria.</li> <li>Know the names of different materials e.g. fabric, wood, card, paper.</li> <li>Be able to use drawings to record ideas.</li> <li>Know and say own products meet the design criteria.</li> </ul> <p><b><u>Food</u></b></p> |

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|   |  | <p>different types of movement.</p> <ul style="list-style-type: none"> <li>• Know how to make simple mechanisms including flaps, sliders and levers.</li> <li>• Know how to insert paper fasteners to card.</li> <li>• Know how to use a hole punch.</li> <li>• Know how to fold, tear and cut paper and card.</li> <li>• Be able to cut along lines, straight and curved.</li> </ul>  | <ul style="list-style-type: none"> <li>• Be able to use drawings to record ideas.</li> <li>• Know and say own products meet the design criteria.</li> </ul> <p><u>Textiles</u></p> <ul style="list-style-type: none"> <li>• Know how to cut, shape and join paper, card and fabric, using tape, staples, glue and pins.</li> <li>• Know how to cut out shapes created with a template.</li> <li>• Know how to decorate fabric with detail such as ribbons, sequins beads etc.</li> <li>• Know how to colour fabric using techniques such as fabric pens, paints and printing.</li> </ul> |  |  | <ul style="list-style-type: none"> <li>• Know that they should wash hands, tie hair back, wear an apron and wipe down work surface before preparing food.</li> <li>• Understand the idea of healthy and not healthy foods.</li> <li>• Know how to use a bridge hold for chopping hard ingredients using a knife.</li> </ul>  |
| <p><b>Disciplinary Knowledge (Skills)</b></p> |  | <p><u>Design</u></p> <ul style="list-style-type: none"> <li>• Describe and use pictures to show what they want to make and make mock-ups to try out their ideas</li> </ul> <p><u>Functionality</u></p> <ul style="list-style-type: none"> <li>• Explore existing products.</li> <li>• Explain what they are making and say what they do and do not like about their product.</li> </ul> <p><u>Mechanisms</u></p> <ul style="list-style-type: none"> <li>• Know ways of making a structure stronger and show how to stiffen some materials</li> </ul> | <p><u>Design</u></p> <ul style="list-style-type: none"> <li>• Describe and use pictures to show what they want to make and make mock-ups to try out their ideas</li> </ul> <p><u>Functionality</u></p> <ul style="list-style-type: none"> <li>• Explore existing products.</li> <li>• Explain what they are making and say what they do and do not like about their product.</li> </ul> <p><u>Textiles</u></p>   |  |  | <p><u>Design</u></p> <ul style="list-style-type: none"> <li>• Describe and use pictures to show what they want to make and make mock-ups to try out their ideas</li> </ul> <p><u>Functionality</u></p> <ul style="list-style-type: none"> <li>• Explore existing products.</li> <li>• Explain what they are making and say what they do and do not like about their product.</li> </ul> <p><u>Food</u></p> <ul style="list-style-type: none"> <li>• Begin to understand that all food comes from plants or animals</li> <li>• Begin to develop children’s peeling and chopping skills</li> </ul> |

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|  |                 |  | <ul style="list-style-type: none"> <li>Join various chosen fabrics by using glue staples and pins.</li> <li>Decorate and colour products.</li> <li></li> </ul>   |                 |                 |   |
| <b>Year 2</b>                          | <b>Autumn 1</b> | <b>Autumn 2</b>  | <b>Spring 1</b>  | <b>Spring 2</b> | <b>Summer 1</b> | <b>Summer 2</b>   |
| <b>Topic Theme</b>                     |                 | <b>Cinderella’s carriage</b>   | <b>Playground equipment</b>  |                 |                 | <b>Picnic for a school trip</b>   |
| <b>DT Substantive Knowledge</b>        |                 | <p><b><u>Wheels &amp; Axles –</u></b><br/><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>Know how existing products are made.</li> <li>Know how to select materials from a limited range.</li> <li>Know that adding notes to drawings help explain ideas</li> <li>Know and say how existing products do or do not achieve their purpose.</li> <li>Be able to say how you will make something using simple terms e.g. first, next, then.</li> </ul> <p><u>Mechanisms</u></p> <ul style="list-style-type: none"> <li>Know different axel fittings and their strengths and weaknesses.</li> <li>Know how to attach wheels to a chassis using an axle.</li> </ul> | <p><b><u>Freestanding Structures</u></b><br/><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>Know how existing products are made.</li> <li>Know how to select materials from a limited range.</li> <li>Know that adding notes to drawings help explain ideas</li> <li>Know and say how existing products do or do not achieve their purpose.</li> <li>Be able to say how you will make something using simple terms e.g. first, next, then.</li> </ul> <p><u>Structures</u></p> <ul style="list-style-type: none"> <li>Know how to make freestanding structures stronger, stiffer and more stable.</li> <li><b>KNOW</b> how to use a template to cut materials.</li> </ul> |                 |                 | <p><b><u>Food technology</u></b><br/><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>Know how existing products are made.</li> <li>Know how to select materials from a limited range.</li> <li>Know that adding notes to drawings help explain ideas</li> <li>Know and say how existing products do or do not achieve their purpose.</li> <li>Be able to say how you will make something using simple terms e.g. first, next, then.</li> </ul> <p><u>Food</u></p> <ul style="list-style-type: none"> <li>Know the different sections of the Eat Well plate and start to understand the idea of a balanced meal.</li> <li>Know how to name and sort food on the Eatwell Plate.</li> <li>Know that food should be stored appropriately and put away e.g. in the fridge.</li> <li>Know to clean equipment in warm soapy water and to throw away food that has been dropped on the floor.</li> <li>Know that food has to be farmed, grown elsewhere (e.g. at home), or caught.</li> </ul> |
| <b>Disciplinary Knowledge (Skills)</b> |                 | <p><u>Design</u><br/>Suggest more than one idea for their product, using design criteria they have made.<br/>Use drawings, notes and ICT to communicate their design.</p> <p><u>Functionality</u><br/>Explore existing products and say if they meet</p>   | <p><u>Design</u><br/>Suggest more than one idea for their product, using design criteria they have made.<br/>Use drawings, notes and ICT to communicate their design.</p> <p><u>Functionality</u><br/>Explore existing products and say if they meet their</p>   |                 |                 | <p><u>Design</u><br/>Suggest more than one idea for their product, using design criteria they have made.<br/>Use drawings, notes and ICT to communicate their design.</p> <p><u>Functionality</u><br/>Explore existing products and say if they meet their</p>  |

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|  |                 | <p>their purpose.<br/>Discuss how closely their product meets their design criteria.<br/><u>Mechanisms</u><br/>Experiment with levers and sliders to find different ways of making things move<br/>Attach wheels to a chassis using and axle.</p>   |                 | <p>purpose.<br/>Discuss how closely their product meets their design criteria.<br/><u>Structures</u><br/>• Know how to make freestanding structures stronger, stiffer and more stable</p>   |  |  | <p>purpose.<br/>Discuss how closely their product meets their design criteria.<br/><u>Food</u><br/>-Begin to use techniques such as cutting, peeling and grating.</p> |
| <b>Year 3</b>                          | <b>Autumn 1</b> | <b>Autumn 2</b>   | <b>Spring 1</b> | <b>Spring 2</b>   |  | <b>Summer 1</b>  | <b>Summer 2</b>   |
| <b>Topic Theme</b>                     |                 | <b>Sustainable bags</b>   |                 | <b>Breakfast muffins</b>  |  | <b>Packaging</b>   |   |
| <b>DT Substantive Knowledge</b>        |                 | <p><u>Textiles</u><br/><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>• Be able to develop more than one design or adaptation.</li> <li>• Know how to plan a sequence of actions to make a product.</li> <li>• Know how to consider aesthetic qualities when choosing materials.</li> <li>• Know how to record and plan using annotated sketches.</li> <li>• Know how to select from a range of tools.</li> <li>• Know how to create design criteria.</li> </ul> <p><u>Textiles</u></p> <ul style="list-style-type: none"> <li>• Know how to strengthen and stiffen fabric.</li> <li>• Know how to use a paper template for pattern.</li> <li>• Know how to use running stitch and over sewing techniques.</li> <li>• Know how to use different fasteners</li> </ul> |                 | <p><u>Food</u><br/><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>• Be able to develop more than one design or adaptation.</li> <li>• Know how to plan a sequence of actions to make a product.</li> <li>• Know how to consider aesthetic qualities when choosing materials.</li> <li>• Know how to record and plan using annotated sketches.</li> <li>• Know how to select from a range of tools.</li> <li>• Know how to create design criteria.</li> </ul> <p><u>Food</u></p> <ul style="list-style-type: none"> <li>• Know how to make healthy choices using the Eat Well plate.</li> <li>• Know sensory vocabulary for a range of foods.</li> <li>• Know how to Join and combine a range of food ingredients.</li> </ul> |  | <p><b><u>Structures – shell structures</u></b><br/><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>• Be able to develop more than one design or adaptation.</li> <li>• Know how to plan a sequence of actions to make a product.</li> <li>• Know how to consider aesthetic qualities when choosing materials.</li> <li>• Know how to record and plan using annotated sketches.</li> <li>• Know how to select from a range of tools.</li> <li>• Know how to create design criteria.</li> </ul> <p><u>Structures</u></p> <ul style="list-style-type: none"> <li>• Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.</li> <li>• Develop and use knowledge of how to construct strong, stiff shell structures using corrugating, laminating and ribbing.</li> </ul> |   |
| <b>Disciplinary Knowledge (Skills)</b> |                 | <p><u>Design</u><br/>Develop ideas by changing initial design.<br/>Record their design with annotated sketches.<br/>understand how key events and individuals in design and technology have helped shape the world<br/><u>Functionality</u><br/>Explore existing products and use them as a starting point for design.<br/>Discuss how closely their product meets their design</p>   |                 | <p><u>Design</u><br/>Develop ideas by changing initial design.<br/>Record their design with annotated sketches.<br/><u>Functionality</u><br/>Explore existing products and use them as a starting point for design.<br/>Discuss how closely their product meets their design criteria and consider how finished product could be improved.</p>  |  | <p><u>Design</u><br/>Develop ideas by changing initial design.<br/>Record their design with annotated sketches.<br/><u>Functionality</u><br/>Explore existing products and use them as a starting point for design.<br/>Discuss how closely their product meets their design criteria and consider how finished product could be improved.</p>   |   |

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|  | <p>criteria and consider how finished product could be improved.</p> <p>Select from and use a wide range of materials and components including textiles.</p> <p><u>Textiles</u></p> <p>Use sewing progression to learn new stitches including running stitch and over stitch.</p> <p>Add decoration by sewing on buttons, sequins etc and making loops.</p> |  | <p><u>Food</u></p> <p>Follow instructions or a recipe using peeling, chopping, slicing and grating techniques.</p> <p>- Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury).</p> | <p><u>Structures</u></p> <p>Use techniques to strengthen shell structures.</p> |  |
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| Year 4                                 | Autumn | Autumn 2 | Spring 1   | Spring 2  | Summer 1 | Summer 2  |
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| <b>Topic Theme</b>                     |        |          | <b>Night light</b>   | <b>Pizzas – locality</b>  |          | <b>Ancient Greece</b>   |
| <b>DT Substantive Knowledge</b>        |        |          | <p><u>Electrical systems</u></p> <p><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>Know how to use CAD.</li> <li>Know how to develop prototypes to share and test ideas.</li> <li>Know how to research the needs of the user.</li> </ul> <p><u>Electrical systems</u></p> <ul style="list-style-type: none"> <li>Know how to incorporate buzzers, bulbs, switches etc into a system.</li> </ul> | <p><u>Food Technology</u></p> <p><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>Know what a cross sectional exploded diagram and begin to use one.</li> <li>Know how to develop prototypes to share and test ideas.</li> <li>Know how to research the needs of the user.</li> </ul> <p><u>Food</u></p> <ul style="list-style-type: none"> <li>Begin to have some knowledge of the seasonality of fruit and vegetables.</li> <li>Know some of the countries/ continents fruits and vegetables are grown.</li> <li>Develop understanding of how meat and fish are reared and caught.</li> <li>Know that some foods have use by dates and life depends on the type of product.</li> </ul> |          | <p><u>Levers and Linkages (Pop Up Books)</u></p> <p><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>Know what a cross sectional exploded diagram and begin to use one.</li> <li>Know how to use CAD where appropriate.</li> <li>Know how to develop prototypes to share and test ideas.</li> <li>Know how to research the needs of the user.</li> </ul> <p><u>Mechanisms</u></p> <ul style="list-style-type: none"> <li>Know different ways of making levers and linkages and how they can change movement or make them bigger.</li> <li>Know how to use card or lolly sticks etc to make levers and linkages.</li> </ul> |
| <b>Disciplinary Knowledge (Skills)</b> |        |          | <p><u>Design</u></p> <ul style="list-style-type: none"> <li>Develop ideas by changing initial designs and making a prototype.</li> <li>Record their design with annotated sketches, using CAD where appropriate.</li> </ul>  | <p><u>Design</u></p> <ul style="list-style-type: none"> <li>Develop ideas by changing initial designs and making a prototype.</li> <li>Record their design with annotated sketches, using CAD where appropriate.</li> </ul>   |          | <p><u>Design</u></p> <ul style="list-style-type: none"> <li>Develop ideas by changing initial designs and making a prototype.</li> <li>Record their design with annotated sketches.</li> </ul>  |

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|  |               | <p><u>Functionality</u></p> <ul style="list-style-type: none"> <li>• Research and evaluate existing products to use them as a starting point for design.</li> <li>• Discuss how closely their product meets their design criteria, discussing strengths and weaknesses.</li> </ul> <p><u>Electrical Systems</u></p> <ul style="list-style-type: none"> <li>• Incorporate a circuit into a model.</li> <li>• Use electrical systems such as bulbs and buzzers.</li> </ul>           | <p><u>Functionality</u></p> <ul style="list-style-type: none"> <li>• Research and evaluate existing products to use them as a starting point for design.</li> <li>• Discuss how closely their product meets their design criteria, discussing strengths and weaknesses.</li> </ul> <p><u>Food</u></p> <ul style="list-style-type: none"> <li>• Hygienically prepare and cook mainly savoury dishes following a recipe, developing skills such as mixing, kneading and baking.</li> <li>• Understand that food is grown reared and caught in the UK and the wider world.</li> </ul>   |                 | <p><u>Functionality</u></p> <ul style="list-style-type: none"> <li>• Research and evaluate existing products to use them as a starting point for design.</li> <li>• Discuss how closely their product meets their design criteria, discussing strengths and weaknesses.</li> </ul> <p><u>Mechanisms</u></p> <ul style="list-style-type: none"> <li>• Use linkages to make movements larger and more varied.</li> <li>• Make a prototype of a product.</li> </ul>  |                 |
| <b>Year 5</b>                          | <b>Autumn</b> | <b>Autumn 2</b>  | <b>Spring 1</b>  | <b>Spring 2</b> | <b>Summer 1</b>   | <b>Summer 2</b> |
| <b>Topic Theme</b>                     |               | <b>Space(Moon Buggies)</b>   | <b>Soup</b>  |                 | <b>Dolls</b>  |                 |
| <b>DT Substantive Knowledge</b>        |               | <p><u>Pulleys and Gears/electrical systems</u></p> <p><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>• know existing products from the internet, books which can influence design ideas.</li> <li>• Know how to plan sequence of work. E.g. Using a story board.</li> </ul> <p><u>Mechanisms</u></p> <ul style="list-style-type: none"> <li>• Know how a pulley can be used with a motor to power a vehicle.</li> <li>• Know how a pulley works.</li> </ul> | <p><u>Food Technology</u></p> <p><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>• know existing products from the internet and books and use to influence design ideas.</li> <li>• Know how to plan sequence of work. E.g. using a story board.</li> </ul> <p><u>Food</u></p> <ul style="list-style-type: none"> <li>• Know how to select and prepare food for a particular purpose.</li> <li>• Know how to select foods based on seasonality.</li> <li>• Know what cross contamination is and how to avoid this e.g. Washing hands after using raw meat, using different chopping boards etc.</li> <li>• Know how to weigh and measure using scales.</li> <li>• Know where and how ingredients are grown and processed.</li> </ul> |                 | <p><u>Textiles</u></p> <p><u>Design and evaluate</u></p> <ul style="list-style-type: none"> <li>• know existing products from the internet, books which can influence design ideas.</li> <li>• Know how to plan sequence of work. E.g. Using a story board.</li> </ul> <p><u>Textiles</u></p> <ul style="list-style-type: none"> <li>• Know how to pin and tac fabric together.</li> <li>• Know how to create 3d project using pattern pieces and seam allowance.</li> <li>• Know how to use over sew, back stitch and blanket stitch.</li> <li>• Know how to read and understand a pattern layout.</li> <li>• Know that components should be decorated before assembly.</li> </ul> |                 |
| <b>Disciplinary Knowledge (Skills)</b> |               | <p><u>Design</u></p> <ul style="list-style-type: none"> <li>• Develop a chosen design in depth from a selection of sketches and models.</li> <li>• Use models, kits and annotated diagrams to develop designs.</li> </ul> <p><u>Functionality</u></p>  | <p><u>Design</u></p> <ul style="list-style-type: none"> <li>• Develop a chosen design in depth from a selection of sketches and models.</li> <li>• Use models, kits and annotated diagrams to develop designs.</li> </ul> <p><u>Functionality</u></p>  |                 | <p><u>Design</u></p> <ul style="list-style-type: none"> <li>• Develop a chosen design in depth from a selection of sketches and models.</li> <li>• Use models, kits and annotated diagrams to develop designs.</li> </ul> <p><u>Functionality</u></p>   |                 |

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|  |  | <ul style="list-style-type: none"> <li>Draw and sketch existing products to understand them and use them as a starting point for design.</li> <li>Discuss how closely their product meets their design criteria, discussing how it could be made to closer fit the criteria.</li> </ul> <p><u>Mechanisms</u></p> <ul style="list-style-type: none"> <li>Build frameworks using appropriate joining techniques to support mechanisms.</li> </ul> | <ul style="list-style-type: none"> <li>Draw and sketch existing products to understand them and use them as a starting point for design.</li> <li>Discuss how closely their product meets their design criteria, discussing how it could be made to closer fit the criteria.</li> </ul> <p><u>Food</u></p> <ul style="list-style-type: none"> <li>Understand that seasons may affect food available.</li> <li>Understand how food is processed into ingredients.</li> <li>Gain confidence in the skills kneading mixing, baking, cutting, peeling and grating.</li> </ul> |  | <ul style="list-style-type: none"> <li>Draw and sketch existing products to understand them and use them as a starting point for design.</li> <li>Discuss how closely their product meets their design criteria, discussing how it could be made to closer fit the criteria.</li> </ul> <p><u>Textiles</u></p> <ul style="list-style-type: none"> <li>Understand seam allowance,</li> <li>Create products using a pattern.</li> <li>Use blanket stitch.</li> <li></li> </ul> |  |
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| Year 6                          | Autumn | Autumn 2   | Spring 1                   | Spring 2  | Summer 1                            | Summer 2  |  |
|---------------------------------|--------|--|----------------------------|---|-------------------------------------|---|--|
|                                 |        | <b>Early Islamic Civilisation</b>  | <b>Fairground Carousel</b> |   | <b>Play House structure for ks1</b> |   |  |
| <b>DT Substantive Knowledge</b> |        | <p><b>Food Technology: Grab and Go Product</b></p> <p>Design and Evaluate</p> <ul style="list-style-type: none"> <li>Know how to develop an idea in depth</li> </ul> <p>Food:</p> <ul style="list-style-type: none"> <li>To know a range of cooking techniques</li> <li>To know how chefs have influenced our attitudes towards food technology</li> <li>To know the nutritional value of foods</li> </ul> |                            | <p><b>Programme, monitoring and Control</b></p> <p>Design and Evaluate</p> <ul style="list-style-type: none"> <li>Know how to develop an idea in depth</li> <li>Identify strengths and weaknesses of their design ideas.</li> <li>Test the system to demonstrate its effectiveness for the intended user and purpose.</li> </ul> <p>Electrical Systems:</p> <ul style="list-style-type: none"> <li>Understand electrical systems in their products.</li> <li>Understand the use of computer control systems in products.</li> </ul> |                                     | <p><b>Frame Structures</b></p> <p>Design and Evaluate:</p> <ul style="list-style-type: none"> <li>To know how key people and events have influenced design.</li> <li>Know how to develop an idea in depth</li> </ul> <p>Structures:</p> <ul style="list-style-type: none"> <li>Know how to stiffen and reinforce complex structures.</li> <li>Know how to cut dowel using a hacksaw to the nearest mm.</li> </ul> |  |



Westgate Primary School – DT Long Term Planning

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| <p><b>Disciplinary Knowledge (Skills)</b></p> |  | <p>Design</p> <ul style="list-style-type: none"> <li>• Use prototypes, exploded diagrams and cross sectional diagrams to develop and communicate ideas.</li> <li>• understand how key events and individuals in design and technology have helped shape the world</li> </ul> <p>Functionality</p> <ul style="list-style-type: none"> <li>• Identify strengths and weaknesses of their design ideas.</li> <li>• Report how closely their product meets their design criteria having tested it on user, discussing how it could be made to closer fit user’s criteria</li> </ul> <p>Food:</p> <ul style="list-style-type: none"> <li>• Prepare a range of mostly savoury dishes mastering skills learnt.</li> <li>• Select ingredients taking into account their nutritional properties</li> </ul> |  | <p>Design:</p> <ul style="list-style-type: none"> <li>• Use prototypes, exploded diagrams and cross sectional diagrams to develop and communicate ideas.</li> </ul> <p>Functionality</p> <ul style="list-style-type: none"> <li>• Report how closely their product meets their design criteria having tested it on user, discussing how it could be made to closer fit user’s criteria</li> </ul> <p>Electrical systems</p> <p>Use electrical systems in their products.</p> <ul style="list-style-type: none"> <li>• Apply their understanding of computing to program, monitor and control their products.</li> </ul> | <p>Design:</p> <ul style="list-style-type: none"> <li>• Use prototypes, exploded diagrams and cross sectional diagrams to develop and communicate ideas.</li> </ul> <p>Functionality:</p> <ul style="list-style-type: none"> <li>• Identify strengths and weaknesses of their design ideas.</li> <li>• Report how closely their product meets their design criteria having tested it on a user, discussing how it could be made to closer fit the user’s criteria</li> </ul> <p>Structures:</p> <ul style="list-style-type: none"> <li>• Stiffen and reinforce complex structures.</li> <li>• Cut using a hacksaw accurately</li> </ul> |  |
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