

Lightmoor Village Primary School Progression Grid  
Design Technology

|                            |           | Reception   | Year 1   | Year 2                                     | Year 3  | Year 4  | Year 5   | Year 6  |
|----------------------------|-----------|---|--|--|---|---|--|---|
| To master practical skills | Food      | Recognise that food comes from plants or animals.<br>Begin to recognise that everyone should eat at least five portions of fruit and vegetables every day.<br>Use techniques e.g. cutting, peeling and grating. | Measure or weigh using measuring cups or electronic scales<br><br>Cut, peel or grate ingredients safely and hygienically | Assemble or cook ingredients.              | Measure ingredients to the nearest gram accurately.<br><br>Follow a recipe. | Prepare ingredients hygienically using appropriate utensils.<br><br>Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking) | Demonstrate a range of baking and cooking techniques.<br><br>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).<br><br>Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. |
|                            | Materials | Begin to use scissors correctly to cut and  | Demonstrate a range of cutting and shaping techniques  | Cut materials safely using tools provided. | Cut materials accurately and safely by selecting                            | Measure and mark out to the nearest millimetre.   | Show an understanding of the qualities of materials to choose  | Cut materials with precision and refine the finish with appropriate   |

Lightmoor Village Primary School Progression Grid  
Design Technology

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|  |          | shape (such as tearing and cutting) | (such as tearing, cutting, folding and curling). | <p>Measure and mark out to the nearest centimetre.</p> <p>Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).</p> | <p>appropriate tools.</p> <p>Select appropriate joining techniques.</p> | <p>Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</p> | <p>appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).</p>                                  | <p>tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).</p>   |
|  | Textiles | .                                   | <p>Shape textiles using templates.</p>           | <p>Join textiles using running stitch.</p> <p>Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).</p>              | <p>Join textiles with appropriate stitching.</p>                        | <p>Understand the need for a seam allowance.</p> <p>Select the most appropriate techniques to decorate textiles.</p>                        | <p>Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).</p> | <p>Create objects (such as a cushion) that employ a seam allowance.</p> <p>Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).</p> |

Lightmoor Village Primary School Progression Grid  
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|  | Electricals and electronics | .   | Begin to diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage). | Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage). |   | Create series and parallel circuits<br><br>Begin to create series and parallel circuits | Begin to create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips). | Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips). |
|  | Computing                   | Recognise that a range of technology is used in places such as homes and schools. They select and use particular technology to operate simple | Begin to model designs using software.   | Model designs using software.   | Begin to control and monitor models using software designed for this purpose. | Control and monitor models using software designed for this purpose.                    | Begin to write code to control and monitor models or products.   | Write code to control and monitor models or products.   |

Lightmoor Village Primary School Progression Grid  
Design Technology

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|  |                  | equipment<br>eg: Ipad,<br>and<br>beebots |  |   |   |  |   |  |
|  | Constructio<br>n |  | Begin to use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products. | Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products. | Choose suitable techniques to construct products or to repair items.  | Strengthen materials using suitable techniques.  | Begin to develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding). | Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding). |
|  | Mechanics        |  | Work towards creating products using levers, wheels and winding mechanisms   | Create products using levers, wheels and winding mechanisms   | Begin to use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears). | Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears). | Convert rotary motion to linear using cams.   | Use innovative combinations of electronics (or computing) and mechanics in product designs.  |

Lightmoor Village Primary School Progression Grid  
Design Technology

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| To design, make, evaluate and improve |  | <p>Talk about their designs and what they're making.<br/>Talk about how to make their products better.<br/>Explore what products are, who they are for, how they are used and where they are from.<br/>Talk about likes and dislikes of existing products and own product created.</p> | <p>Design products that have a clear purpose and an intended user.</p> | <p>Make products, refining the design as work progresses.<br/><br/>Use software to design.</p> | <p>Design with purpose by identifying opportunities to design.</p> | <p>Make products by working efficiently (such as by carefully selecting materials).<br/><br/>Refine work and techniques as work progresses, continually evaluating the product design.<br/><br/>Use software to design and represent product designs.</p> | <p>Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).<br/>Ensure products have a high quality finish, using art skills where appropriate.</p> | <p>Make products through stages of prototypes, making continual refinements.<br/><br/>Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.</p> |
| To take inspiration                   |  |  | Explore how products   | Explore objects and designs to   | Improve upon existing  | Identify some of the great  | Create innovative   | Combine elements of   |

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Design Technology

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| from design throughout history |  |   | have been created.  | identify likes and dislikes of the designs.<br><br>Suggest improvements to existing designs.   | designs, giving reasons for choices.<br><br>Disassemble products to understand how they work   | designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.   | designs that improve upon existing products.   | design from a range of inspirational designers throughout history, giving reasons for choices.<br><br>Evaluate the design of products so as to suggest improvements to the user experience. |
| Key Vocab                      |  | Apron<br>Chop<br>Cut<br>Equipment<br>Fork<br>Knife<br>Mix<br>Spoon<br>Bead<br>Button<br>Fabric<br>Felt<br>Scissors<br>Sew<br>Cello tape | Basin<br>Chopping Board<br>Cleaning cloths<br>Grater<br>Ingredients<br>Masher<br>Measuring jug<br>Measuring spoons<br>Mixing bowl<br>Peeler<br>Pizza tray | Amount<br>Baking Sheet<br>Chopping Board<br>Cleaning cloths<br>Grater<br>Ingredients<br>Knead<br>Masher<br>Measure<br>Measuring jug<br>Measuring spoons<br>Method<br>Mixing bowl<br>Pastry cutters<br>Peeler | Grams/Kilogram<br>s<br>Hygiene<br>Ladle<br>Millilitre/Litre<br>Spatula<br>Temperature<br>Whisk<br>Back stich<br>Binca<br>Bodkin<br>Cotton thread<br>Cross stitch<br>Hook and eye<br>Loom | Grams/Kilogram<br>s<br>Hygiene<br>Ladle<br>Millilitre/Litre<br>Spatula<br>Temperature<br>Whisk<br>Back stich<br>Binca<br>Bodkin<br>Cotton thread<br>Cross stitch<br>Hook and eye<br>Loom | Grams/Kilogram<br>s<br>Hygiene<br>Ladle<br>Millilitre/Litre<br>Spatula<br>Temperature<br>Whisk<br>Back stich<br>Binca<br>Bodkin<br>Cotton thread<br>Cross stitch<br>Hook and eye<br>Loom | Grams/Kilogram<br>s<br>Hygiene<br>Ladle<br>Millilitre/Litre<br>Spatula<br>Temperature<br>Whisk<br>Back stich<br>Binca<br>Bodkin<br>Cotton thread<br>Cross stitch<br>Hook and eye<br>Loom    |

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|  |  | Glue Stick | Scales    | Pizza tray      | Pinking Shears | Pinking Shears | Pinking Shears | Pinking Shears |
|  |  | Masking    | Wooden    | Recipe          | Press stud     | Press stud     | Press stud     | Press stud     |
|  |  | Tape       | spoon     | Saucepans       | Running stitch | Running stitch | Running stitch | Running stitch |
|  |  | Paper Clip | Fabric    | Scales          | Seam allowance | Seam allowance | Seam allowance | Seam allowance |
|  |  | Plasticine | crayons   | Sieve           | Sewing machine | Sewing machine | Sewing machine | Sewing machine |
|  |  | Ruler      | Needle    | Weigh           | Tacking        | Tacking        | Tacking        | Tacking        |
|  |  | Straws     | Pattern   | Wooden spoon    | Thimble        | Thimble        | Thimble        | Thimble        |
|  |  | Build      | Ribbon    | Centimetre/metr | Tenon saw      | Tenon saw      | Tenon saw      | Tenon saw      |
|  |  | Make       | Silk      | e               | Vice           | Vice           | Vice           | Vice           |
|  |  |            | Tape      | Fabric crayons  | Wire Strippers | Wire Strippers | Wire Strippers | Wire Strippers |
|  |  |            | measure   | Fabric pens     | Screws         | Screws         | Screws         | Screws         |
|  |  |            | Velcro    | Needle          | Nails          | Nails          | Nails          | Nails          |
|  |  |            | Wool      | Pattern         | Accurate       | Accurate       | Accurate       | Accurate       |
|  |  |            | Zip       | Pin             | Marking out    | Marking out    | Marking out    | Marking out    |
|  |  |            | 2-D       | Ribbon          | Jointer        | Jointer        | Jointer        | Jointer        |
|  |  |            | 3-D       | Silk            | Junior Hacksaw | Junior Hacksaw | Junior Hacksaw | Junior Hacksaw |
|  |  |            | Clay      | Stitch          | Motor          | Motor          | Motor          | Motor          |
|  |  |            | Cut       | Tape measure    | Pliers         | Pliers         | Pliers         | Pliers         |
|  |  |            | Materials | Thread          | Rotary Cutter  | Rotary Cutter  | Rotary Cutter  | Rotary Cutter  |
|  |  |            | Plastic   | Velcro          | Safety ruler   | Safety ruler   | Safety ruler   | Safety ruler   |
|  |  |            | PVA glue  | Wool            | Screwdriver    | Screwdriver    | Screwdriver    | Screwdriver    |
|  |  |            | Wood      | Zip             | Side cutters   | Side cutters   | Side cutters   | Side cutters   |
|  |  |            | Design    |                 | Snips          | Snips          | Snips          | Snips          |
|  |  |            | Plan      |                 | Spanner        | Spanner        | Spanner        | Spanner        |
|  |  |            | Product   |                 | Stapler        | Stapler        | Stapler        | Stapler        |
|  |  |            | 2-D       | Dowel           | Dowel          | Dowel          | Dowel          |                |
|  |  |            | 3-D       | Battery         | Battery        | Battery        | Battery        |                |
|  |  |            | Clay      | Battery Holder  | Battery Holder | Battery Holder | Battery Holder |                |
|  |  |            | Cut       | Light Bulb      | Light Bulb     | Light Bulb     | Light Bulb     |                |
|  |  |            | Materials | Bulb Holder     | Bulb Holder    | Bulb Holder    | Bulb Holder    |                |
|  |  |            | Metal     | Buzzer Gears    | Buzzer Gears   | Buzzer Gears   | Buzzer Gears   |                |

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|  |  |  |  | Plastic<br>PVA glue<br>Wire<br>Wood<br>Design<br>Plan<br>Product | Glass paper<br>Sand paper<br>Bench Hook<br>Bradawl<br>Crocodile Clip<br>Coping saw<br>Disassemble<br>Cutting Mat<br>Drill<br>Drill bits<br>File<br>G-Clamp<br>Goggles<br>Safety glasses<br>Hammer<br>Hole Punch<br>Compass<br>Pulley<br>Switches<br>Wheel<br>Millimetre<br>Saw<br>Render Analyse<br>Combine<br>Construct<br>Criteria<br>Evaluate<br>Health and<br>safety<br>Parameters<br>Requirements | Glass paper<br>Sand paper<br>Bench Hook<br>Bradawl<br>Crocodile Clip<br>Coping saw<br>Disassemble<br>Cutting Mat<br>Drill<br>Drill bits<br>File<br>G-Clamp<br>Goggles<br>Safety glasses<br>Hammer<br>Hole Punch<br>Compass<br>Pulley<br>Switches<br>Wheel<br>Millimetre<br>Saw<br>Render Analyse<br>Combine<br>Construct<br>Criteria<br>Evaluate<br>Health and<br>safety<br>Parameters<br>Requirements | Glass paper<br>Sand paper<br>Bench Hook<br>Bradawl<br>Crocodile Clip<br>Coping saw<br>Disassemble<br>Cutting Mat<br>Drill<br>Drill bits<br>File<br>G-Clamp<br>Goggles<br>Safety glasses<br>Hammer<br>Hole Punch<br>Compass<br>Pulley<br>Switches<br>Wheel<br>Millimetre<br>Saw<br>Render Analyse<br>Combine<br>Construct<br>Criteria<br>Evaluate<br>Health and<br>safety<br>Parameters<br>Requirements | Glass paper<br>Sand paper<br>Bench Hook<br>Bradawl<br>Crocodile Clip<br>Coping saw<br>Disassemble<br>Cutting Mat<br>Drill<br>Drill bits<br>File<br>G-Clamp<br>Goggles<br>Safety glasses<br>Hammer<br>Hole Punch<br>Compass<br>Pulley<br>Switches<br>Wheel<br>Millimetre<br>Saw<br>Render Analyse<br>Combine<br>Construct<br>Criteria<br>Evaluate<br>Health and<br>safety<br>Parameters<br>Requirements |
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