



# Curriculum Progression Map



## ENGAGEMENT – RESILIENCE - INTEGRITY

### Design and Technology – Generating Ideas - Designing

<b>Year group</b>	<b>Key skills and 'sticky' knowledge</b>	<b>Key vocabulary</b>
<b>Year 1</b>	<ul style="list-style-type: none"> <li>• Know that before something is made, it has to be designed.</li> <li>• Know that more than one design is always generated so that designers have a choice.</li> <li>• Know that a product has to be designed for a reason/ purpose.</li> <li>• Know that a product has to be designed for a target group/ key audience.</li> <li>• Know that the chosen design is always discussed and improved before the final design is chosen.</li> <li>• Know that products are usually made in factories, often by machinery but sometimes by hand (people).</li> <li>• Know that anyone can have a good idea that they can develop in order to make a product.</li> <li>• Know how to produce more than one design through discussion for a set purpose and audience and be able to discuss key design features with a partner.</li> </ul>	<p>designed, design, generated, designers, product, reason, purpose, target group, key audience, improved, final design, factories, machinery, manually, idea, develop, produce, key design features</p>
<b>Year 2</b>	<ul style="list-style-type: none"> <li>• Know that before something is made, it has to be designed.</li> <li>• Know that more than one design is always generated so that designers have a choice.</li> <li>• Know that a product has to be designed for a reason/ purpose.</li> <li>• Know that a product has to be designed for a target group/ key audience.</li> <li>• Know that there can be a number of different reasons/ purposes/ target group/audience a product is designed for and understand the reasons why.</li> <li>• Know that the chosen design is always discussed and improved before the final design is chosen.</li> <li>• Know how to suggest ways in which a design can be improved/ modified.</li> <li>• Know that products are usually made in factories, often by machinery but sometimes by hand (people).</li> <li>• Know how to list items that they might come across that have been designed via this process.</li> <li>• Know how to produce more than one design through discussion or drawing for a set purpose and audience and be able to discuss key design features with a partner.</li> </ul>	<p>designed, design, generated, designers, reason, purpose, product, target group, key audience, improved, final design, modified, factories, machinery, manually, process, produce, key design features</p>

<p><b>Year 3</b></p>	<ul style="list-style-type: none"> <li>• Know that there can be a number of different reason/ purposes/ target groups/ key audiences a product is designed for and understand the reasons why.</li> <li>• Know that research is used and carried out in order to inform the design of a product.</li> <li>• Know that from this, design criteria are created in order for the product to meet the outcomes from the research.</li> <li>• Know what design criteria are.</li> <li>• Know how to start using research to inform basic design criteria.</li> <li>• Know that the chosen design is always discussed and improved before the final design is chosen.</li> <li>• Know how to suggest ways in which a design can be improved/ modified.</li> <li>• Know how to produce more than one design through drawing.</li> <li>• Know how to use annotation in order to communicate design features and acknowledges aspects of the design criteria.</li> </ul>	<p>reasons, purposes, target groups, key audience, product, designed, design, design criteria, outcomes, research, final design, improved, modified, produce, annotation, design features</p>
<p><b>Year 4</b></p>	<ul style="list-style-type: none"> <li>• Know that there can be a number of different reasons/ purposes/ target group/ key audiences a product is designed for and understand the reasons why.</li> <li>• Know that research is used and carried out in order to inform the design of a product.</li> <li>• Know how to carry out own research in order to inform the design of a product.</li> <li>• Know that from this, design criteria are created in order for the product to meet the outcomes from the research.</li> <li>• Know what design criteria are.</li> <li>• Know how to develop own design criteria for a product.</li> <li>• Know that the chosen design is always discussed and improved against the design criteria before the final design is chosen.</li> <li>• Know how to suggest ways in which a design can be improved/ modified.</li> <li>• Know how to produce more than one design through drawing.</li> <li>• Know how to use annotation in order to communicate design features and ensure design criteria has been met.</li> </ul>	<p>reasons, purposes, target group, key audience, product, design, designed, research, inform, product, design criteria, outcomes, improved, modified, produce, annotation, design features</p>
<p><b>Year 5</b></p>	<ul style="list-style-type: none"> <li>□ Know the key audience for whom you are designing your enterprise product for.</li> <li>□ Know and understand the target group/ key audience in order to develop a suitable product for them.</li> <li>□ Know how to use a set of design criteria based on research surrounding the target group/ key audience.</li> <li>□ Know what a cross sectional exploded diagram is.</li> <li>□ Know what a prototype is.</li> <li>□ Know how to use diagrams and prototypes in the process.</li> <li>□ Know how Computer Aided Design can be used in the design process (the use of 2D and 3D designs).</li> <li>□ Know how to use Computer Aided Design to make a 2D or 3D design.</li> </ul>	<p>key audience, designing, enterprise product, target group, product, design criteria, research, cross sectional exploded diagram, prototype, diagrams, process, Computer Aided Design, 2D designs, 3D designs</p>
<p><b>Year 6</b></p>	<ul style="list-style-type: none"> <li>• Know the key audience for whom you are designing your enterprise product for.</li> <li>• Know and understand the target group/ key audience in order to develop a suitable product for them.</li> <li>• Know how to use a set of design criteria based on research surrounding the target group/ key audience.</li> <li>• Know what a cross sectional exploded diagram is.</li> <li>• Know what a prototype is.</li> <li>• Know how to use diagrams and prototypes in the process.</li> <li>• Know how Computer Aided Design can be used in the design process (the use of 2D and 3D designs).</li> <li>• Know how to use Computer Aided Design to make a 2D or 3D design.</li> </ul>	<p>key audience, designing, enterprise product, target group, product, design criteria, research, cross sectional exploded diagram, prototype, diagrams, process, Computer Aided Design, 2D designs, 3D designs</p>

## Curriculum Progression Map

### Design and Technology - Making

<b>Year group</b>	<b>Key skills and 'sticky' knowledge</b>	<b>Key vocabulary</b>
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<b>Year 1</b>	<ul style="list-style-type: none"> <li>• Begin to make their design using appropriate techniques.</li> <li>• With help measure, mark out, cut and shape a range of materials</li> <li>• Know how to correctly hold a pair of scissors.</li> <li>• Know how to cut accurately along different sizes and shapes of lines.</li> <li>• Know that tracing (of simple lines using pencil) can be used to develop fine motor skills.</li> <li>• Know that there are different ways to join materials (e.g. glue, sellotape and blu-tack).</li> <li>• Begin to use simple finishing techniques to improve the appearance of their product.</li> </ul>	<p>sizes, shapes, lines, tracing, simple lines, fine motor skills, join, materials, glue, sellotape, blu-tack, thread, equipment, hole punched holes,</p>
<b>Year 2</b>	<ul style="list-style-type: none"> <li>• Begin to select tools and materials; use correct vocabulary to name and describe them</li> <li>• Learn to use hand tools safely and appropriately.</li> <li>• Know that product designs can be made out of a range of materials.</li> <li>• Know that certain materials are used for a specific purpose and are chosen for those reasons.</li> <li>• Know that tracing (of simple lines, shapes and patterns using pencil) can be used to make a template.</li> <li>• Know how to create differently shaped templates (using tracing and scissors).</li> <li>• Know how to cut accurately along lines and around template shapes using scissors.</li> <li>• Start to choose and use appropriate finishing techniques based on own ideas.</li> </ul>	<p>product, designs, materials, purpose, tracing, simple lines, shapes, patterns, template, create, cut, scissors, investigate, methods, joining, equipment,</p>
<b>Year 3</b>	<ul style="list-style-type: none"> <li>• Know what reclaimed and recycled materials are.</li> <li>• Know how to cut, fold, trace and shape accurately in order to produce a finished product.</li> <li>• Know how to create a simple lever slider for a pop-up book/card.</li> <li>• Know how to join and finish accurately by selecting and using a wide range of tools and equipment.</li> <li>• Explain their choice of tools and equipment in relation to the skills and techniques they will be using.</li> <li>• Measure, mark out, cut, score and assemble components with more accuracy.</li> <li>• Start to work safely and accurately with a range of simple tools.</li> <li>• Start to think about their ideas as they make progress and be willing to change things if this helps them to improve their work</li> </ul>	<p>Reclaimed, recycled, cut, fold, trace, shape, product, create, simple lever slider, pop-up book/card, join, finish, lever, measure, score, components</p>

<p><b>Year 4</b></p>	<ul style="list-style-type: none"> <li>• <i>Select a wider range of tools and techniques for making their product safely.</i></li> <li>• <i>Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques.</i></li> <li>• <i>Continue to learn how to program a computer to monitor changes in the environment and control their products</i></li> <li>• <i>Understand how to reinforce and strengthen a 3D framework</i></li> <li>• <i>Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</i></li> <li>• <i>Know how to cut, fold, trace and shape accurately in order to produce a finished product.</i></li> <li>• <i>Know how to create a simple lever slider for a pop-up book/card.</i></li> <li>• <i>Know how to join and finish accurately by selecting and using a wide range of tools and equipment.</i></li> </ul>	<p><i>cut, fold, trace, shape, produce, product, create, simple lever slider, pop-up book/card, join, finish, tools, equipment, make, equipment, techniques, reinforce, strengthen,</i></p>
<p><b>Year 5</b></p>	<ul style="list-style-type: none"> <li>• <i>Know how to consider functional and aesthetic properties.</i></li> <li>• <i>Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately.</i></li> <li>• <i>Begin to measure and mark out more accurately</i></li> <li>• <i>Demonstrate how to use skills in using different tools and equipment safely and accurately with growing confidence cut and join with accuracy to ensure a good-quality finish to the product.</i></li> <li>• <i>Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</i></li> </ul>	<p><i>designs, investigate, investigations, thread materials, tools, components, functional, aesthetic properties</i></p>
<p><b>Year 6</b></p>	<ul style="list-style-type: none"> <li>• <i>Confidently select appropriate tools, materials, components and techniques and use them.</i></li> <li>• <i>Know how to consider functional and aesthetic properties.</i></li> <li>• <i>Use tools safely and accurately.</i></li> <li>• <i>Aim to make and to achieve a quality product.</i></li> <li>• <i>Demonstrate when make modifications as they go along.</i></li> <li>• <i>Know how to reinforce and strengthen a 3D framework.</i></li> <li>• <i>Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</i></li> </ul>	<p><i>designs, investigate, investigations, tools, components, functional, aesthetic properties</i></p>

### Curriculum Progression Map

#### Design and Technology - Evaluating

<p><b>Year group</b></p>	<p><b>Key skills and 'sticky' knowledge</b></p>	<p><b>Key vocabulary</b></p>
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<p><b>Year 1</b></p>	<ul style="list-style-type: none"> <li>• Know what it means to evaluate something in terms of strengths.</li> <li>• Know how to make suggestions in order to make the product even better.kindly make suggestions without causing</li> <li>• Know how to offence.</li> </ul>	<p>evaluate, strengths, suggestions, product</p>
<p><b>Year 2</b></p>	<ul style="list-style-type: none"> <li>• Know what it means to evaluate something in terms of strengths.</li> <li>• Know how to make suggestions in order to make the product even better.kindly make suggestions without causing</li> <li>• Know how to offence.</li> </ul>	<p>evaluate, strengths, suggestions, product</p>
<p><b>Year 3</b></p>	<ul style="list-style-type: none"> <li>• Know what a net is.</li> <li>• Know and explore how to disassemble a range of different packaging to discover avariety of nets and shapes.</li> <li>• Know how nets and shapes form different packaging.</li> <li>• Know how to make their own net for their own packaging.</li> <li>• Know how to add strength to a net by using different materials.</li> <li>• Know how to evaluate own work and suggest changes.</li> </ul>	<p>net, disassemble, packaging, shapes, strength, materials, evaluate, suggestions</p>
<p><b>Year 4</b></p>	<ul style="list-style-type: none"> <li>• Know what a net is.</li> <li>• Know and explore how to disassemble a range of different packaging to discover avariety of nets and shapes.</li> <li>• Know how nets and shapes form different packaging.</li> <li>• Know how to evaluate different nets according to durability in order to influencetheir own net design.</li> <li>• Know how to make their own net for their own packaging.</li> <li>• Know how to test different ways of adding strength to a net by using differentmaterials.</li> <li>• Know how to evaluate own work in terms of strength and make suggestions.</li> </ul>	<p>net, disassemble, packaging, shapes, evaluate, durability, net design, strength, materials, suggestions</p>
<p><b>Year 5</b></p>	<ul style="list-style-type: none"> <li>• Know that there can be a number of different decorative techniques to complete aproject.</li> <li>• Know how to explore a range of finishing techniques to decide which is mosteffective.</li> <li>• Know what triangulation is.</li> <li>• Know and understand how triangles add strength.</li> <li>• Know how to demonstrate this through triangulation.</li> <li>• Know how to evaluate critically and effectively in order to improve own work.</li> <li>• Know how to make suggestions considering a different design criteria/target groupin the future.</li> </ul>	<p>decorative techniques, project, finishing techniques, triangulation, strength, evaluate, critically, improve, suggestions, design criteria/target</p>
<p><b>Year 6</b></p>	<ul style="list-style-type: none"> <li>• Know that there can be a number of different decorative techniques to complete a project.</li> <li>• Know how to explore a range of finishing techniques to decide which is mosteffective.</li> <li>• Know what triangulation is.</li> <li>• Know and understand how triangles add strength.</li> <li>• Know how to demonstrate this through triangulation.</li> <li>• Know how to evaluate critically and effectively in order to improve own work.</li> <li>• Know how to make suggestions considering a different design criteria/target groupin the future.</li> </ul>	<p>decorative techniques, project, finishing techniques, triangulation, strength, evaluate, critically, improve, suggestions, design criteria/target group</p>

**Curriculum Progression Map –**  
**Design and Technology - Structures**

<b>Year group</b>	<b>Key skills and 'sticky' knowledge</b>	<b>Key vocabulary</b>
<b>Year 1</b>	<ul style="list-style-type: none"> <li>• Construct a range of simple structures using simple construction kits.</li> <li>• Make a structure more stable by widening the base.</li> <li>• Make a square frame from strip wood using triangular card joints.</li> <li>• Make a simple card hinge.</li> </ul>	<p>construction, explore, slider, simple moving image</p>
<b>Year 2</b>	<ul style="list-style-type: none"> <li>• Deconstruct and assemble the net of basic 3D shapes.</li> <li>• Strengthen 2D frames by adding diagonal bracing struts.</li> <li>• Make a rectangular frame from strip wood.</li> <li>• Use materials to make simple joints, glue, tape and paper clips.</li> <li>• Know how to investigate different methods for joining materials</li> </ul>	<p>Structure, stable, rigid, cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder</p>
<b>Year 3</b>	<ul style="list-style-type: none"> <li>• Deconstruct and assemble the net of a range of basic 3D shapes.</li> <li>• Join 2D frames to create 3D structures.</li> <li>• Make rectangular frames of different sizes using strip wood, reinforcing with crossbraces.</li> <li>• Use a range of materials to make joints.</li> <li>• Know that certain reclaimed/ recycled materials can be used for a specific purpose in order to make a structure.</li> </ul>	<p>reclaimed, recycled materials, purpose, structure,</p>

<p><b>Year 4</b></p>	<ul style="list-style-type: none"> <li>□ Create nets of increasingly complex 3D shapes which include the addition of gluing tabs.</li> <li>□ Reinforce and strengthen 3D framework using the concept of 'triangulation'.</li> <li>□ Explain in detail why some structures fail.</li> <li>□ Use a range of materials to make joints e.g., card strips, elastic bands, thread and ties, and plastic tubing.</li> <li>□ Know what reclaimed and recycled materials are.</li> <li>□ Know that certain reclaimed/ recycled materials can be used for a specific purpose in order to make a structure.</li> </ul>	<p>reclaimed, recycled, materials, purpose, Girder, rafter, strut shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision</p>
<p><b>Year 5</b></p>	<ul style="list-style-type: none"> <li>• Create nets and templates accurately in a range of sizes.</li> <li>• Use a range of increasing methods to strengthen 3D structures and frames.</li> <li>• Investigate measure and record the load tolerance of different structures and find ways of improving a structures loadbearing capacity.</li> <li>• Build a range of structures using a wide range of effective materials.</li> </ul>	<p>reclaimed, recycled, materials, purpose, Girder, rafter, strut shell structure, Net, template, structure, frame. Measure, record, strengthen, load, capacity, loadbearing, materials</p>
<p><b>Year 6</b></p>	<ul style="list-style-type: none"> <li>• Make use of specialist equipment to mark out materials.</li> <li>• Select the most appropriate method to strength 3D structures and frames.</li> <li>• Apply a range of finishing techniques, including those from art and design, to a broad range of materials including textiles, metals, polymers and woods.</li> <li>• Use a wider more complex range of materials, components and ingredients, taking into account their properties.</li> </ul>	<p>Member, cross brace, cantilever, frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent</p>

**Curriculum Progression Map**  
**Design and Technology - Textiles**

Year group	Key skills and 'sticky' knowledge	Key vocabulary
Year 1	<ul style="list-style-type: none"> <li>• Talk about and begin to select textiles based on characteristics of an increasing range of materials.</li> <li>• Use a simple template. Join fabrics using glue, staples and thread.</li> <li>• Apply an increasing range of finishing techniques, e.g. painting and printing.</li> <li>• Know how to create a picture with peg board and pegs, using fine motor skills.</li> </ul>	<i>joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish, thread, equipment, hole punched holes, cotton reels, shoelaces, create, peg board, pegs</i>
Year 2	<ul style="list-style-type: none"> <li>• Talk about the similarities and differences between textiles based on the characteristics of an increasing range of materials.</li> <li>• Use a simple pattern with increasing accuracy.</li> <li>• Cut and join fabrics using running stitch, buttons and bond web.</li> <li>• Decorate fabric by applying beads and sequins.</li> <li>• Know how to develop string threading skills using a threading board.</li> <li>• Know how to thread using smaller equipment (e.g. hollow pasta, beads, buttons and string) to create an item for an identified purpose (e.g. a counting aid or jewellery).</li> </ul>	<i>joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish, threading, threading board,</i>



<p><b>Year 3</b></p>	<ul style="list-style-type: none"> <li>• Give reasons for the selection of fabrics and techniques based on knowledge of characteristics.</li> <li>• Make and use a simple paper pattern.</li> <li>• Join fabrics in a range of different ways using zips, tie clasp, toggles, press-studs and buttons.</li> <li>• Use a wide range of simple finishing techniques.</li> <li>• Know how to thread a wide eyelet needle using thread.</li> <li>• Know how to use the threading grids to create simple threading patterns- crossstitch and running stitch.</li> </ul>	<p>fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance, thread, wide eyelet needle, threading grids, threading patterns, cross stitch, running stitch</p>
<p><b>Year 4</b></p>	<ul style="list-style-type: none"> <li>• Support reasons for selections with justifiable evidence and facts.</li> <li>• Make and use a paper pattern that includes a seam allowance.</li> <li>• Sew using a range of stitches including, backward running stitch and over sewing.</li> <li>• Use a wide range of techniques to add colour, texture and pattern to fabric.</li> <li>• Know how to thread a wide eyelet needle using thread.</li> <li>• Know how to use binka to create a simple sewing product- cross stitch, runningstitch, back stitch and whipping stitch.</li> <li>• Now sew using a range of different stitches, to weave and knit.</li> </ul>	<p>thread, wide eyelet needle, binka, simple sewing product, crossstitch, running stitch, back stitch, whippingstitch, weaving, loom, knit, casting on/off</p>
<p><b>Year 5</b></p>	<ul style="list-style-type: none"> <li>• Select appropriate materials to create a product.</li> <li>• Create increasingly complex patterns and templates with more than one part that are accurately measured. Use a sewing machine to join and decorate fabric.</li> <li>• Identify the most effective finishing technique in order to maximise the aesthetic value of the product.</li> <li>• Know how to thread a small eyelet needle using thread.</li> <li>• Know how to choose a type of stitch for a purpose (e.g. cross stitch, running stitch, back stitch and whipping stitch).</li> </ul>	<p>seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastenings used, pins, thread, pinkingshears, fastenings, , small eyelet needle, stitch, purpose, cross stitch, running stitch, back stitch, whipping stitch,</p>

<b>Year 6</b>	<ul style="list-style-type: none"> <li>• Know how to thread a small eyelet needle using thread.</li> <li>• Know how to choose a type of stitch for a purpose (e.g. cross stitch, running stitch, back stitch and whipping stitch).</li> <li>• Use a broad range of material joining techniques including stitching, mechanical fastenings, heat processes and adhesives.</li> <li>• Investigate and develop skills in modifying the appearance of materials including textiles and other manufactured materials e.g. dyeing and applique</li> <li>• Use CAD/CAM to produce and apply surface finishing techniques, e.g. using dye sublimation</li> </ul>	<p>thread, small eyelet needle, stitch, purpose, cross stitch, running stitch, backstitch, whipping stitch, materials, dyeing, applique, CAD/CAM</p>
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## Curriculum Progression Map

### Design and Technology – Mechanisms/Mechanical Systems

Year group	Key skills and 'sticky' knowledge	Key vocabulary
<b>Year 1</b>	<ul style="list-style-type: none"> <li>• Deconstruct a simple slider and describe how it works.</li> <li>• Construct a simple slider independently.</li> <li>• Make a lever by joining card strips with paper fasteners.</li> <li>• Understand that different mechanisms produce different types of movement.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>	<p>slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards</p>
<b>Year 2</b>	<ul style="list-style-type: none"> <li>• Deconstruct a range of sliders and describe how they work.</li> <li>• Construct increasing complex sliders.</li> <li>• Join levers to make linkages to create moving parts.</li> <li>• Construct a simple pneumatic system with one moving part.</li> <li>• Explore and use wheels, axles and axle holders.</li> <li>• Distinguish between fixed and freely moving axles.</li> <li>• Know and use technical vocabulary relevant to the project.</li> <li>• Know how to explore a range of simple levers for a specific purpose.</li> <li>• Know how to create a simple moving image using a lever.</li> </ul>	<p>vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used, simple levers, simple moving image, lever</p>
<b>Year 3</b>	<ul style="list-style-type: none"> <li>• Deconstruct and reconstruct a range of sliders and levers.</li> <li>• Vary the position of the pivot point to lift a load using a lever.</li> <li>• Construct a pneumatic with two moving parts.</li> <li>• Identify the cam within a simple mechanism and explain how movement is changed.</li> <li>• Understand and use lever and linkage mechanisms.</li> <li>• Distinguish between fixed and loose pivots.</li> <li>• Know and use technical vocabulary relevant to the project.</li> </ul>	<p>mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating</p>

<p><b>Year 4</b></p>	<ul style="list-style-type: none"> <li>• Create a range of sliders and levers to produce horizontal and vertical movement.</li> <li>• Combine sliders and levers to produce a range of movements.</li> <li>• Generate questions to investigate and compare the efficiency of pneumaticsystems.</li> <li>• Describe the way in which a cam changes rotary motion into linear motion.</li> </ul>	<p>Slider, lever, horizontal, vertical, pneumatic, cam, rotary, motion, linear</p>
<p><b>Year 5</b></p>	<ul style="list-style-type: none"> <li>• Use a range of technical vocabulary to describe the properties and functions ofmechanisms.</li> <li>• Choose and use a range of sliders and levers accurately to create a range of effects.</li> <li>• Analyse and evaluate the efficiency of pneumatic systems.</li> <li>• Discuss the relationship between a cam and follower, an off-centre cam, a pegcam, a pear-shaped cam and a snail cam.</li> <li>• Know what a simple pulley system consists of.</li> <li>• Know that there can be different designs of pulley systems.</li> <li>• Know how to investigate different pulley systems.</li> <li>• Know how to use these investigations to make own simple pulley system.</li> </ul>	<p>pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output designs, investigate, investigations,</p>
<p><b>Year 6</b></p>	<ul style="list-style-type: none"> <li>• Know what a simple pulley system consists of.</li> <li>• Know that there can be different designs of pulley systems.</li> <li>• Know how to investigate different pulley systems.</li> <li>• Know how to use these investigations to make own simple pulley system.</li> <li>• Make adjustments to the settings of equipment and machinery such as sewingmachines and drilling machines.</li> <li>• Construct and use compound gear trains to drive mechanical systems from a high revving motor.</li> </ul>	<p>simple pulley system, designs, investigate, investigations, mechanical, motor, drill,</p>

**Curriculum Progression Map**

## Design and Technology – Electrical Systems

Year group	Key skills and 'sticky' knowledge	Key vocabulary
<b>Year 3</b>	<ul style="list-style-type: none"> <li>• Explore and describe how an electric motor can be used in a circuit.</li> <li>• Identify key features of electrical safety.</li> <li>• Use a remote-controlled device to switch lights on and off. (including computercontrol packages)</li> <li>• Know how to make a simple electrical circuit using a buzzer, a battery, a bulb andwires.</li> <li>• Know that a simple circuit consists of a buzzer, a battery, a bulb and wires and that knowledge of a circuit can be applied for a specific D and T purpose.</li> </ul>	<p>tools, equipment, make, simple electrical circuit, buzzer, battery, bulb,wires</p>
<b>Year 4</b>	<ul style="list-style-type: none"> <li>• Know how to make a simple electrical circuit using a buzzer, a battery, a bulb andwires.</li> <li>• Know that a simple circuit consists of a buzzer, a battery, a bulb and wires andthat knowledge of a circuit can be applied for a specific D and T purpose.</li> <li>• Explore and describe how electrical circuits can be created and controlled.</li> <li>• Discuss in depth the hazards and safety issues associated with electricity.</li> <li>• Explore and explain how the direction and speed of an electrical motor can becontrolled.</li> <li>• Explore and program a simple control device.</li> </ul>	<p>series circuit, fault, connection, toggle switch, push-to-makeswitch, push-to-breakswitch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device,</p>
<b>Year 5</b>	<ul style="list-style-type: none"> <li>• Explore and describe how switches can be used in a range of circuits to controlcomponents, e.g. lights in a lighthouse, a movement sensor in a burglar alarm.</li> <li>• Apply appropriate safety measures when constructing circuits.</li> <li>• Explore and discuss ways in which electricity can be used to control movement.</li> <li>• Explore and use an increasing range of complex control system, e.g., a lightsensor.</li> </ul>	<p>Switch, circuit, current, component, light, sensor, electricity, , fault, connection, toggle switch, push-to-make switch, push-to-breakswitch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device,</p>

<b>Year 6</b>	<ul style="list-style-type: none"> <li>• Use computer-based systems to control an increasing range of components</li> <li>• Apply computing and use of electronics to embed intelligence in products that respond to inputs.</li> <li>• Control outputs such as actuators and motors.</li> <li>• Make use of sensors to detect heat, light, sound and movement.</li> </ul>	<p>reed switch, toggle switch, push-to-make switch, push-to-break switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip control, program, system, input device, output device, series circuit, parallel circuit</p>
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### Curriculum Progression

#### Design and Technology - Food

<b>Year group</b>	<b>Key skills and 'sticky' knowledge</b>	<b>Key vocabulary</b>
<b>Year 1</b>	<ul style="list-style-type: none"> <li>• Know that meat comes from animals and fish comes from the sea.</li> <li>• Know that vegetables and fruit come from plants in the earth.</li> <li>• Know that dairy products such as yoghurt, cheese and milk come from animals.</li> <li>• Know that some foods are bad because they contain lots of sugar or fat and give some examples.</li> <li>• Know how to suggest healthy and unhealthy snacks and be able to say whether these are good or bad for you.</li> <li>• Know that unhealthy foods can make you feel bad and damage your teeth.</li> <li>• Know which foods are healthy/ unhealthy on the eat well plate.</li> <li>• Know that the healthy foods outweigh the unhealthy foods on the eat well plate.</li> <li>• Know how to hold a knife correctly using a simple bridge hold.</li> <li>• Know how to peel, cut, chop and spread soft items such as bread, bananas, strawberries etc.</li> <li>• Know how to make a sandwich and a fruit salad.</li> </ul>	<p>meat, animals, fish, vegetables, fruit, plants, dairy products, yoghurt, cheese, milk, foods, sugar, fat, healthy, unhealthy, eat well plate, hold, knife, simple bridge hold, peel, cut, chop, spread, make</p>

<p><b>Year 2</b></p>	<ul style="list-style-type: none"> <li>• Know the main sources of food (e.g. meat and dairy from animals, fruit and vegetables from plants etc.).</li> <li>• Know that some foods are farmed, grown or caught (giving examples) and that these are natural food items.</li> <li>• Know that some foods are bad because they contain lots of sugar or fat and can give some examples.</li> <li>• Know that some foods are man-made (giving examples) and that these are artificial.</li> <li>• Know how to suggest healthy and unhealthy snacks and be able to say whether these are good or bad for you.</li> <li>• Know that unhealthy foods can make you feel bad and damage your teeth.</li> <li>• Know which foods are healthy/ unhealthy on the eat well plate and can state healthier food swap alternatives.</li> <li>• Know that the healthy foods outweigh the unhealthy foods on the eat well plate.</li> <li>• Know the proportions of each food group on the eat well plate and why this is important.</li> <li>• Know how to hold a knife correctly using a simple bridge hold.</li> <li>• Know how to evaluate a food product- healthy dip against certain aspects (e.g. taste, smell, appearance).</li> <li>• Know how to peel, cut and chop firmer foods (such as apples, carrots, cheese and tomatoes etc.) in order to make a dip.</li> </ul>	<p>sources, food, meat, dairy, animals, fruit, vegetables, plants, farmed, grown, caught, natural food items, sugar, fat, man-made, artificial, healthy, unhealthy, snacks, teeth, eat well plate, healthier food swap alternatives, proportions, food group, hold, knife, simple bridge hold, peel, cut, chop, evaluate, food product, aspects, taste, smell, appearance</p>
<p><b>Year 3</b></p>	<ul style="list-style-type: none"> <li>• Know the importance of hand washing in terms of food health, safety and hygiene.</li> <li>• Know the key health and safety rules when cooking (e.g. hair tied up, wash hands, no jewellery and cleaned work station/ utensils).</li> <li>• Know the difference between savoury and sweet foods.</li> <li>• Know where different food products come from and how they are made using research to inform own planning (e.g. where foods are grown, farmed or caught).</li> <li>• Know how to plan a savoury meal using knowledge of the eat well plate (containing carbohydrate and vegetables).</li> <li>• Know how to plan a healthy sweet meal using knowledge of the eat well plate (containing fruit/s).</li> <li>• Know the key aspects of planning a dish (e.g. equipment, ingredients and instructions).</li> <li>• Know the importance of planning before preparing and cooking a food dish.</li> <li>• Know how to prepare and cook a dish following a pre-made plan or recipe.</li> <li>• Know how to demonstrate and use a range of cooking techniques when preparing and cooking dishes (e.g. chopping, kneading, grating and mixing).</li> </ul>	<p>food health, safety, hygiene, health and safety rules, cooking, savoury foods, sweet foods, food products, research, plan, planning, grown, farmed, caught, eat well plate, carbohydrates, vegetables, fruits, key aspects, equipment, ingredients, instructions, preparing, cooking, prepare, cook, cooking techniques, chopping, kneading, grating, mixing</p>

<p><b>Year 4</b></p>	<ul style="list-style-type: none"> <li>• Know the importance of hand washing in terms of food health, safety and hygiene.</li> <li>• Know the key health and safety rules when cooking (e.g. hair tied up, washhands, no jewellery and cleaned work station/ utensils).</li> <li>• Know the difference between savoury and sweet foods.</li> <li>• Know where different food products come from and how they are made using research to inform own planning (e.g. where foods are grown, farmed or caught).</li> <li>• Know how to plan a savoury meal using knowledge of the eat well plate(containing carbohydrate and vegetables).</li> <li>• Know how to plan a healthy sweet meal using knowledge of the eat well plate(containing fruit/s).</li> <li>• Know the key aspects of planning a dish (e.g. equipment, ingredients and instructions).</li> <li>• Know the importance of planning before preparing and cooking a food dish.</li> <li>• Know how to prepare and cook a dish following a pre- made plan or recipe.</li> <li>• Know how to demonstrate and use a range of cooking techniques when preparing and cooking dishes (e.g. chopping, kneading, grating and mixing).</li> </ul>	<p>food health, safety, hygiene, health and safety rules, cooking, savoury foods, sweet foods, food products, research, inform, planning, grown, farmed, caught, eat well plate, carbohydrates, vegetables, fruits, key aspects, equipment, ingredients, instructions, preparing, cooking, prepare, cook, pre-made plan, recipe, cooking techniques, chopping, kneading, grating, mixing</p>
<p><b>Year 5</b></p>	<ul style="list-style-type: none"> <li>• Know how to demonstrate correct preparation of food products.</li> <li>• Know how raw meats should be safely stored e.g. bottom of the fridge).</li> <li>• Know how to prepare raw meat (e.g. different chopping board/ utensils and washing hands before and after).</li> <li>• Know the importance of this health advice when handling more than one type of meat.</li> <li>• Know the importance of cooking meat for the correct amount of time, based on packaging advice.</li> <li>• Know and check when a meat has been properly cooked (e.g. juices run clear and chicken is white not pink).</li> <li>• Know how to create, plan, prepare and cook a healthy evening meal using a heat source.</li> <li>• Know how to select and use appropriate cooking techniques for a healthy evening meal (e.g. chopping, kneading, grating and mixing).</li> </ul>	<p>preparation, food products, raw meats, stored, prepare, cooking, packaging, cooked, create, plan, prepare, cook, heat source, cooking techniques, chopping, kneading, grating, mixing</p>
<p><b>Year 6</b></p>	<ul style="list-style-type: none"> <li>• Know how to demonstrate correct preparation of food products.</li> <li>• Know how raw meats should be safely stored e.g. bottom of the fridge).</li> <li>• Know how to prepare raw meat (e.g. different chopping board/ utensils and washing hands before and after).</li> <li>• Know the importance of this health advice when handling more than one type of meat.</li> <li>• Know the importance of cooking meat for the correct amount of time, based on packaging advice.</li> <li>• Know and check when a meat has been properly cooked (e.g. juices run clear and chicken is white not pink).</li> <li>• Know how to create, plan, prepare and cook a healthy evening meal using a heat source.</li> <li>• Know how to select and use appropriate cooking techniques for a healthy evening meal (e.g. chopping, kneading, grating and mixing).</li> </ul>	<p>preparation, food products, raw meats, stored, prepare, cooking, packaging, cooked, create, plan, prepare, cook, heat source, cooking techniques, chopping, kneading, grating, mixing</p>