**DT Skills Progression – Term 5 & 6**

| Skill | Year Group | Activity ideas | Key Vocabulary |
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| | ***By the end of the year, children will be able to:*** | | |
| **Design**<br>*Construction and mechanisms – Castles* | Year 1<br>• I can create a simple design for my product.<br>• I can use pictures and words to describe what I want to do.<br>• I can explore and use sliders and levers. | Use sketchbooks to design castle, including a drawbridge using a lever for movement.<br><br>Use simple pictures and words to describe design and materials needed.<br><br>Use whole class design template to model | Planning, investigating design, evaluate, make, user, purpose, ideas, product<br><br>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<br><br>slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards |
| **Design**<br>*Textiles – threading and sewing* | Year 2<br>• I can generate, develop, model and communicate my ideas through talking, drawing, templates, mock-ups and IT.<br>• I can design useful, pleasing products for myself and other users based on a design brief. | Create design brief as a class.<br><br>Use simple pictures and words to describe design and materials needed.<br><br>Use whole class design template to model | investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function<br><br>joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish |
| **Design**<br>*Djembe Drum*<br><br>*African Mask* | Year 3<br>• I can use my knowledge of existing products to design my own functional product.<br>• I can create designs using annotated sketches, cross-sectional diagrams and simple computer programmes. | Use sketchbooks to design Djembe Drum.<br><br>Use sketches and words to describe design, techniques and materials needed. | user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing |

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| | • I can make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them | Model whole class design template for children to complete their own template independently.<br><br>Research the history behind African masks, use sketchbooks to design cardboard African Mask based on findings.<br><br>Use sketches and words to describe design, techniques and materials needed.<br><br>Model whole class design template for children to complete their own template independently. | 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<br><br>shell structure, threedimensional (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, |
| **Design**<br>*Textiles – Mayan Weaving* | Year 4<br>• I can use my knowledge of existing products to design a functional and appealing product for a particular purpose and audience.<br>• I can create designs using exploded diagrams.<br>• I can use my knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them. | Research Mayan weaving techniques and patterns.<br><br>Use sketchbooks to design own weaving based on findings.<br><br>Use exploded diagrams to annotate design with techniques and materials needed. | evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch, sensory evaluations<br><br>fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance |
| **Design**<br>*Pulleys and CAMs - Boats* | Year 5<br>• I can use my research into existing products and my market research to | Use sketchbook to plan recipes and design pulley and CAM system. | design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, |

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| | inform the design of my own innovative product.<br>• I can produce step by step plans to guide my making, demonstrating that I can apply my knowledge of different materials, tools and techniques.<br>• I can understand how gears and pulleys can be used to speed up, slow down or change the direction of movement | Create step by step plans or write instructions to guide their making, including techniques and materials needed. | research, evaluate, design criteria, annotate, evaluate, mock-up, prototype<br><br>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 |
| **Design**<br>*Cooking and Nutrition – WW2 experience (Jam Tarts)* | Year 6<br>• I can use research I have done into famous designers and inventors to inform my designs.<br>• I can generate, develop, model and communicate my ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer aided design. | Use sketchbooks to plan their recipe and steps to create jam tarts.<br><br>Research the history behind WW2 and traditional bakes.<br><br>Use exploded diagrams to annotate their design, showing what ingredients and equipment they will need. | function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype<br><br>ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble |

| Skill | Year Group | Activity Ideas | Key Vocabulary |
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| | ***By the end of the year, children will be able to:*** | | |
| **Make**<br>*Construction and mechanisms – Castles* | Year 1<br>• I can use a range of simple tools to cut, join and combine materials and components safely.<br>• I can select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing.<br>• I am beginning to understand how to make freestanding structures stronger, stiffer and more stable. | Based on their design, make their construction of castles with support on choosing and using the appropriate tools they should use.<br><br>The design should focus on the successful use of a pulley system for drawbridge. | 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<br><br>slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards |
| **Make**<br>*Textiles – threading and sewing* | Year 2<br>• I can choose tools I would like to use and select materials based on my knowledge of their properties.<br>• I can safely measure, mark out, cut and shape materials and components using a range of tools.<br>• I can understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. | Based on their design, make their textile project.<br><br>With support, use tools to safely thread and sew. | joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish |
| **Make**<br>*Djembe Drum*<br><br>*African Mask* | Year 3<br>• I can safely measure, mark out, cut, assemble and join with some accuracy.<br>• I can develop and use knowledge of how to construct strong, stiff shell structures. | Choosing their materials and appropriate tools independently based on their designs. | 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 |

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| **Make**<br>*Textiles – Mayan Weaving* | Year 4<br>• I can use techniques which require more accuracy to cut, shape, join and finish my work e.g. Cutting internal shapes, slots. | Based on research from findings, children are to create a piece of weaving, such as a coaster using a CD or cardboard template. | fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance |
| **Make**<br>*Pulleys and CAMs - Boats* | Year 5<br>• I can create prototypes to show my ideas.<br>• I can make careful and precise measurements so that joins, holes and openings are in exactly the right place. | Use plans to create boats with a focus on CAMs and pulleys. | 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 |
| **Make**<br>*Cooking and Nutrition – WW2 experience (Jam Tarts)* | Year 6<br>• I can apply my knowledge of materials and techniques to refine and rework my product to improve its functional properties and aesthetic qualities.<br>• I can use my technical knowledge and accurate skills to problem solve during the making process.<br>• Understand about seasonality in relation to food products and the source of different food products. | Use their recipes and step by step instructions to bake jam tarts. | ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble |

| Skill | Year Group | Activity Ideas | Key Vocabulary |
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| | ***By the end of the year, children will be able to:*** | | |
| **Evaluate** *Construction and mechanisms – Castles* | Year 1<br>• I can ask simple questions about existing products and those that I have made. | Using the evaluation template as a class, evaluate their pulley system and castle structure. | planning, investigating design, evaluate, make, user, purpose, ideas, product, |
| **Evaluate** *Textiles – threading and sewing* | Year 2<br>• I can evaluate and assess existing products and those that I have made using a design criteria. | Using the evaluation template as a class, evaluate their textile project. | joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish |
| **Evaluate** *Djembe Drum*<br><br>*African Mask* | Year 3<br>• I can investigate and analyse existing products and those I have made, considering a wide range of factors. | Using the evaluation template as a class to model, children will then complete their own template to evaluate their Djembe drum and African mask. | user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing |
| **Evaluate** *Textiles – Mayan Weaving* | Year 4<br>• I can consider how existing products and my own finished products might be improved and how well they meet the needs of the intended user. | Using the evaluation template as a class to model, children will then complete their own template to evaluate their Mayan weaving. | evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch, sensory evaluations |
| **Evaluate** *Pulleys and CAMs - Boats* | Year 5<br>• I can make detailed evaluations about existing products and my own considering the views of others to improve my work. | Using the evaluation template as a class to model, children will then complete their own template to evaluate their boats, with a focus on their pulleys and CAMs. | design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype |
| **Evaluate** *Cooking and Nutrition – WW2* | Year 6<br>• I can use my knowledge of famous designs to further explain the effectiveness of existing products and products I have made. | Using the evaluation template as a class to model, children will then complete their own template to evaluate their jam tarts. | function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, |

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| *experience (Jam Tarts)* | | | user, innovation, research, functional, mock-up, prototype |

| Skill | Year Group | Activity Ideas | |
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| | ***By the end of the year, children will be able to:*** | | |
| **Technical Knowledge** *Construction and mechanisms – Castles* | Year 1<br>• I can build structures, exploring how they can be made stronger, stiffer and more stable. | Castle and pulley drawbridge | 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 |
| **Technical Knowledge** *Textiles – threading and sewing* | Year 2<br>• I can investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable. | Textiles project | 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 |
| **Technical Knowledge** *Djembe Drum*<br><br>*African Mask* | Year 3<br>• I can strengthen frames with diagonal struts. | Djembe Drum | 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 |
| **Technical Knowledge** *Textiles – Mayan Weaving* | Year 4<br>*Not Applicable to Terms 5 & 6* | | |
| **Technical Knowledge** *Pulleys and CAMs - Boats* | Year 5<br>• I can build more complex 3D structures and apply my knowledge of strengthening techniques to make them stronger or more stable. | Boats with a focus on pulleys and CAMs | pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded |

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| | | | diagrams, mechanical system, electrical system, input, process, output |
| **Technical Knowledge** *Cooking and Nutrition – WW2 experience (Jam Tarts)* | Year 6<br>*Not Applicable to Terms 5 & 6* | | |

| Skill | Year Group | Activity Ideas | Key Vocabulary |
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| | ***By the end of the year, children will be able to:*** | | |
| **Cooking & Nutrition** *Construction and mechanisms – Castles* | Year 1<br>*Not Applicable to Terms 5 & 6* | | |
| **Cooking & Nutrition** *Textiles – threading and sewing* | Year 2<br>*Not Applicable to Terms 5 & 6* | | |
| **Cooking & Nutrition** *Djembe Drum*<br><br>*African Mask* | Year 3<br>*Not Applicable to Terms 5 & 6* | | |
| **Cooking & Nutrition** *Textiles – Mayan Weaving* | Year 4<br>*Not Applicable to Terms 5 & 6* | | |
| **Cooking & Nutrition** *Pulleys and CAMs - Boats* | Year 5<br>*Not Applicable to Terms 5 & 6* | | |
| **Cooking & Nutrition** | Year 6 | WW2 Jam Tarts | ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, |

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| *Cooking and Nutrition – WW2 experience (Jam Tarts)* | • I can confidently plan a series of healthy meals based on the principles of a healthy and varied diet.<br>• I can use information on food labels to inform choice.<br>• I can research, plan and prepare and cook a savoury dish, applying my knowledge of ingredients and my technical skills. | | protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble |