Design and Technology End Points

INTENT	We believe that all children in our school should have the opportunity to develop a creative mindset, become innovative designers and to critically evaluate their own work. We think that is it vital that children have access to a wide range of materials and resources that can allow them to experiment with design, technique and creativity. The problem solving and critical thinking skills acquired through design technology lessons will be used across the whole school curriculum.
PUPILS ARE ENABLED TO…	Become creative problem solvers, as individuals and members of a team, designing and making a range of products.

End Points – End of Phase

EYFS	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Design • Provide opportunities to work together to develop and realise creative ideas. • Encourage them to think about and discuss what they want to make. • Look at products to generate inspiration and conversation about art and artists. **Make** • Provide children with a range of materials for children to construct with. **Evaluate** • Discuss problems and how they might be solved as they arise. • Reflect with children on how they have achieved their aims. **Cooking and nutrition** • Talk about healthy and unhealthy foods. • Talk about having a balance of these. • Talk about likes and dislikes.	**Design** • Use pictures and words to describe what they want to do • Explain what they are making and which tool they are using • Select materials and tools from a limited range • Make a plan based on previous experience • Know what a mock-up is and how to create one • Choose and use a selection of materials for model-making (card, wood, tubes, cotton reels, straws) **Make** • Use a hole punch and paper fasteners • Assemble a lever to make a moving picture • Use levers and linkages to make a picture move • Make a sliding picture • Cut card with scissors following straight and curved lines • Join components using glue or tape; know which is appropriate for the materials	**Design** • Use existing products to help with design • Draw labelled diagrams/exploded diagrams • Choose appropriate equipment, components and techniques with more independence • Plan order of work • Understand the usefulness of making a prototype • Recognise that design must meet a need **Make** • Create a pattern (template), taking seam allowance into account • Understand how a prototype improves a clothing design • Join fabrics with a running stitch, back stitch or over-sewing • Decorate fabric with haberdashery and applique • Use simple fastenings e.g. buttons and loops, Velcro • Use scissors and hole punch with	**Design** • Use knowledge of existing products to help with design • Produce annotated/cross sectional/exploded diagrams • Use correct technical vocabulary • Produce step-by-step plan • Think of several ideas and select the most appropriate • Make a prototype first and use it to evaluate design Use various sources of information and market research **Make** • Use bulbs, buzzers, motors and switches effectively in models • Understand how to draw a circuit diagram • Build a switch for a particular purpose • Trouble-shoot a circuit which isn't working (dead battery, blown bulb, poor connections) • Create nets for 3D shapes • Measure and cut wood neatly to 1mm accuracy • Sand wood to shape it for a purpose • Use a hand drill to drill holes in wood • Join materials with glue, nails or screws, as appropriate

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• Use a range of tools with care and precision. **Technical knowledge** • Teach children different techniques for joining materials, such as how to use adhesive tape and different sorts of glue. • Provide a range of materials and tools and teach children to use them with care and precision.	• Cut wood with a hacksaw and bench hook • Use sandpaper to smooth cut ends of wood • Join wooden components with glue Use jinks' corners to strengthen structures **Evaluate** • Explain how the product works • Explore and evaluate a range of existing products • Suggest things they could do better in future • Compare to original design • Show an awareness of the need for modification of the original ideas **Cooking and nutrition** • Name familiar foods • Know where food comes from • Group familiar food e.g. as fruit and vegetables, and understand the need for a mixture of foods in a healthy diet • Work hygienically and safely • Cut, grate and peel foods using tools and hands • Mix ingredients with hands or a spoon • Use simple measuring aids (spoons, cups, scoops) • Prepare foods for cooking in an oven **Technical knowledge** • Understand how to make	some accuracy • Cut out slots and windows in card Build a circuit with a battery, switch and motor • Use pulleys to form a transport system • Control a model or circuit using an appropriate program or switch • Use Microbits to control a product to do something **Evaluate** • Recognise what isn't working and suggest a modification • Show where they have changed the design for the better • Evaluate in relation to design criteria and user's needs • Investigate and analyse a range of existing products • Understand how key events and individuals in design and technology have helped shape the world **Cooking and nutrition** • Know and understand the components of a balanced diet • Make healthy choices for snacks • Follow a simple recipe • Cut, chop, peel and slice food safely and hygienically • Mix ingredients with a spoon or whisk • Combine food to make a tasty snack, taking flavour and texture into	• Design and make strong frameworks • Control a model using an appropriate program • Use Microbits to control a model • Code using a computer and download the code to the Microbit which can be placed on the product **Evaluate** • Evaluate different designs and select which one to use • Modify during manufacture and explain why • Critically evaluate appearance and function • Justify choice of materials and construction methods • Develop own criteria for evaluation Investigate and analyse a range of existing products • Understand how key events and individuals in design and technology have helped shape the world **Cooking and nutrition** • Taste a range of foods and develop a food vocabulary • Know how some foods are grown, reared, caught or processed • Prepare foods safely and hygienically • Choose foods for a purpose, that are in seasons and know where the food has come from • Weigh ingredients using kitchen scales • Cut, slice, peel and grate food as appropriate • Combine ingredients by kneading, baking and whisking • Cook foods on a stove or in an oven as

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	structures stronger/stiffer • Show an awareness of the need for modification of the original ideas • Explain how the product works • Know what a mock-up is and how to create one • Explain what they are making and which tool they are using	account • Use an oven under close supervision **Technical knowledge** • Understand how key events and individuals in design and technology have helped shape the world • Understand how a prototype improves a clothing design • Understand the usefulness of making a prototype Recognise that design must meet a need • Recognise what isn't working and suggest a modification • Know and understand the components of a balanced diet	appropriate **Technical knowledge** • Understand how key events and individuals in design and technology have helped shape the world • Develop own criteria for evaluation • Use knowledge of existing products to help with design • Understand how to draw a circuit diagram