St John Fisher RC Primary School
Design and Technology Skills Progression

	DESIGN	MAKE	EVALUATE	TECHNICAL SKILLS	COOKING & NUTRITION
REC	• Materials set up in continuous provision, inside and out, provide opportunities for sensory exploration as children begin to take an interest in and describe the texture of things • Children are encouraged to use various construction materials and explore how construction pieces join together to build and balance • With a range of materials and resources available, children are able to develop their own ideas through selecting and using materials and working on processes that interest him/her	• Children begin to use construction materials to construct with a purpose in mind, stacking blocks vertically and horizontally to make enclosures and create spaces • With adult support and following teacher modelling, children design and make through topic, e.g. making their own space rockets or alien characters and trolls linked to story stimulus • Children consider colours and pattern in their design • Throughout the design process children begin to understand that different media can be combined to create new effects, e.g. the use of glitter or sand and glue • Children begin to use simple tools and techniques, competently and appropriately • With adult support, children follow a recipe to make their own porridge, using the simple techniques involved • Children use available resources to create props to support role-play	• Through adult supported research, children learn about products that are fit for purpose and begin to appreciate the creative work of others • Children are encouraged to self-evaluate their ability to design and construct, identifying which techniques they find easy and which need more practise • Children talk about features of his/her own and others' work, recognising the differences between them and the strengths of others	• Begin to use a range of simple tools to cut, join and combine materials and components safely	• Children begin to understand that recipes can be followed to create a food product, e.g. porridge • Children begin to understand that ingredients must be measured out carefully e.g. porridge
Y1	• Create simple designs for a product • Use pictures and words to describe what he/she wants to do • Ask simple questions about existing products and those that he/she has made: Toy • Generate, develop, model and communicate his/her ideas through talking, drawing, templates, mock-ups and, where appropriate, information	• Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing • Build structures, exploring how they can be made stronger, stiffer and more stable • Use wheels and axles in a product	• Evaluate and assess existing products and those that he/she has made using a design criterion	• Use a range of simple tools to cut, join and combine materials and components safely	• Talk about what he/she eats at home and begin to discuss what healthy foods are • Say where some food comes from and give examples of food that is grown • Use simple tools with help to prepare food safely: Sandwiches for the Lighthouse Keeper
Y2	• Use pictures and words to describe what he/she wants to do • Ask simple questions about existing products and those that he/she has made: Boomerang • Design purposeful, functional, appealing products for himself/herself and other users based on design criteria: tartan product • Generate, develop, model and communicate his/her ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	• Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing • Build structures, exploring how they can be made stronger, stiffer and more stable	• Evaluate and assess existing products and those that he/she has made using a design criterion	• Safely measure, mark out, cut and shape materials and components using a range of tools • Choose appropriate tools, equipment, techniques and materials from a wide range • Explore and use mechanisms e.g. levers, sliders, wheels and axles, in his/her products • Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable	• Say where some food comes from and give examples of food that is grown • Use simple tools with help to prepare food safely • Understand the need for a variety of food in a diet • Understand that all food has to be farmed, grown or caught • Use a wider range of cookery techniques to prepare food safely: Healthy snacks

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Y3	• Use knowledge of existing products to design his/her own functional product: Marble Run • Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes: Clay pot design • Investigate and analyse existing products and those he/she has made, considering a wide range of factors: Clay pot	• Strengthen frames using diagonal struts	• Investigate and analyse existing products and those he/she has made, considering a wide range of factors • Understand how mechanical systems such as levers and linkages or pneumatic systems create movement	• Safely measure, mark out, cut, assemble and join with some accuracy • Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them	• Talk about the different food groups and name food from each group • Understand that food has to be grown, farmed or caught in Europe and the wider world • Use a wider variety of ingredients and techniques to prepare and combine ingredients safely
Y4	• Create designs using exploded diagrams • Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them: Viking Long Ship	• Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience • Apply techniques he/she has learnt to strengthen structures and explore his/her own ideas	• Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user	• Use techniques which require more accuracy to cut, shape, join and finish his/her work e.g. Cutting internal shapes, slots in frameworks	• Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy and active • Understand seasonality and the advantages of eating seasonal and locally produced food • Read and follow recipes which involve several processes, skills and techniques: Make and design a pizza

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Y5	• Use his/her research into existing products and his/her market research to inform the design of his/her own innovative product • Create prototypes to show his/her ideas • Produce step by step plans to guide his/her making, demonstrating that he/she can apply his/her knowledge of different materials, tools and techniques • Use research he/she has done into famous designers and inventors to inform the design of his/her own innovative products	• Make careful and precise measurements so that joins, holes and openings are in exactly the right place • Produce step by step plans to guide his/her making, demonstrating that he/she can apply his/her knowledge of different materials, tools and techniques • Build more complex 3D structures and apply his/her knowledge of strengthening techniques to make them stronger or more stable	• Use his/her research into existing products and his/her market research to inform the design of his/her own innovative product • Make detailed evaluations about existing products and his/her own considering the views of others to improve his/her work	• Make careful and precise measurements so that joins, holes and openings are in exactly the right place • Sewing techniques	• Understand the main food groups and the different nutrients that are important for health • Select appropriate ingredients and use a wide range of techniques to combine them • Research, plan and prepare and cook a savoury dish, applying his/her knowledge of ingredients and his/her technical Skills-Moussaka
Y6	• Use his/her research into existing products and his/her market research to inform the design of his/her own innovative product; Chocolate Bar, Electronic Game, • Create prototypes to show his/her ideas: Chocolate Bar • Produce step by step plans to guide his/her making, demonstrating that he/she can apply his/her knowledge of different materials, tools and techniques: Product from Recycled materials. • Use research he/she has done into famous designers and inventors to inform the design of his/her own innovative products. Generate, develop, model and communicate his/her ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design: Recycled Product	• Make careful and precise measurements so that joins, holes and openings are in exactly the right place • Produce step by step plans to guide his/her making, demonstrating that he/she can apply his/her knowledge of different materials, tools and techniques • Build more complex 3D structures and apply his/her knowledge of strengthening techniques to make them stronger or more stable • Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities • Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately	• Make detailed evaluations about existing products and his/her own considering the views of others to improve his/her work • Use his/her knowledge of famous designs to further explain the effectiveness of existing products and products he/she have made	• Understand and use electrical systems in products • Understand how to use more complex mechanical and electrical systems • Use technical knowledge accurate skills to problem solve during the making process • Apply his/her understanding of computing to program, monitor and control his/her product	• Confidently plan a series of healthy meals based on the principles of a healthy and varied diet • Use information on food labels to inform choices • Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable / tasty to eat