2 Year Rolling Programme: A minimum of 1 Design Project per term.
Each year group will complete at least 1 cooking project and 2 projects selected from the other categories as mapped out on the Design and Technology curriculum overview.

Project Categories	Years 3 and 4 (Bracketed are suggested ideas)	Years 5 and Year 6 (Bracketed are suggested ideas)
Structures	Building Shell Structures (Packaging - use 2D nets to create 3D food packaging)	Strengthening and stiffening a structure (Building Bridges or frame structures)
Mechanisms	Levers and linkages (Moving Story Book or a moving model)	Using Cams (Moving toy or object operated by a cam mechanism)
Textiles/Materials	Combining a range of fabrics/materials - Sewing (Stone Age Bag)	Use a range of materials to make a product – children to decide how fabrics/materials are joined/made. (Money container)
Electrical Systems/ Computing	Use a simple circuit in a product. (Torch/Nightlight – using a switch)	Apply understanding of computing to program, monitor and control a product/Computer Aided Design. (Amazing ICT)
Cooking and Nutrition	Prepare and cook a savoury dish using a range of cooking techniques, understand seasonality and how ingredients are grown, reared, caught and processed - **Skills focus** (Soup) Understand and apply the principles of a healthy and varied diet - (smoothies/fruit crumble)	Prepare and cook a savoury dish using a range of cooking techniques, understand seasonality and how ingredients are grown, reared, caught and processed. (Eatwell Project e.g., Chow Mein)

Key Stage 2 End Points	• To research and develop design criteria. • To investigate and analyse a range of existing products. • To design innovative, functional, appealing products that are purposeful aimed at particular individuals or groups. • To develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. • To select and use materials/components according to their functional properties and aesthetic qualities. • To use a wide range of tools and equipment to perform practical tasks used in everyday life. • To evaluate their ideas and products against design criteria and consider the views of others to improve their work. • To understand how key events and individuals in design and technology have helped shape the world. • To apply understanding of mechanical and electrical systems to a product. • To understand how to strengthen, stiffen and reinforce structures. • To develop a range of cooking skills and techniques needed to cook healthy meal. • To understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.		
Knowledge Progression	**Design**	**Make**	**Evaluate**
Year 3	• Research a range of existing products. • Create simple design criteria for a product. • Research key individuals/events if relevant to product. • Draw simple annotated sketches to communicate design ideas.	**Cooking and Nutrition** • Use and apply the principles of a healthy diet. • Prepare and make a savoury dish using basic cooking skills and techniques. • Show a clear understanding of health and safety in the kitchen. Chop, wash, grate, slice, mix, sprinkle, bake **Structures** • Understand how to construct strong, stiff shell structures. • Develop knowledge of 3D nets • Use finishing techniques suitable for the product. strengthen, stiffen, nets, 2D, 3D, shell structure, measure, score, cut, join, finish **Mechanisms** • Select and use tools with some accuracy to cut, shape and join paper and card. • Understand and use levers and linkages and fixed pivots.	• Peer and self-evaluate products against design criteria (How well does it meet its intended purpose?) What was successful? Even better if? What could be improved?

		• Use finishing techniques suitable for the product. lever, linkage, pivot, cut, shape, join, finish **Textiles/Materials** • Select appropriate materials, techniques and tools to make product. • Measure, tape or pin, cut and join fabric with some accuracy. weave, sew, knot, fabric, pattern piece, pin, cut, join, finish **Electrical Systems** • Use a simple electrical system in a product incorporating a switch and bulb. circuit, wires, cell, bulb, switch, cut, join, finish	
Year 4	• Research a range of existing products to inform own design. • Create design criteria for a product. • Research key individuals/events if relevant to product. • Create annotated sketches and/or models to communicate design ideas.	**Cooking and Nutrition** • Use and apply the principles of a healthy diet. • Prepare and make a savoury dish using basic cooking skills and techniques. • Show a clear understanding of health and safety in the kitchen. Chop, wash, grate, slice, mix, sprinkle, bake **Structures** • Understand how to construct strong, stiff shell structures. • Develop knowledge of 3D nets • Use finishing techniques suitable for the product. strengthen, stiffen, nets, 2D, 3D, shell structure, measure, score, cut, join, finish **Mechanisms** • Select and use tools with some accuracy to cut, shape and join paper and card. • Understand and use levers and linkages and fixed pivots. • Use finishing techniques suitable for the product. lever, linkage, pivot, cut, shape, join, finish **Textiles/Materials**	• Evaluate work during the making process – tweak and improve the product as necessary. • Self-evaluate products against design criteria (How well does it meet its intended purpose?) Peer evaluate giving explanations to justify opinion. (Is their product functional and purposeful? Suggest specific ways in which it could it be improved.)

		• Select appropriate materials, techniques and tools to make product. • Measure, tape or pin, cut and join fabric with some accuracy. weave, sew, knot, fabric, pattern piece, pin, cut, join, finish **Electrical Systems** • Use a simple electrical system in a product incorporating a switch and bulb. circuit, wires, cell, bulb, switch, cut, join, finish	
Year 5	• Research and evaluate a range of existing products to inform own designs. • Research and identify design criteria for a product aimed at particular individuals or groups. • Research key individuals/events if relevant to product. • Create detailed annotated sketches, models, cross-sectional and exploded diagrams to communicate design ideas. • Begin to understand how computer-aided design can be used to communicate design ideas.	**Cooking and Nutrition** • Use and apply the principles of a healthy diet. • Prepare and make a savoury dish using increasingly complexed skills and independently applying cooking skills and techniques. • Apply a clear understanding of health and safety in the kitchen. • Chop, wash, grate, slice, mix, roll, boil, bake, drain, knead, rub, season, simmer, stir-fry. **Structures** • Understand how to strengthen stiffen and reinforce more complex structures. • Use tools to accurately measure, mark out, cut, shape and join materials to make framework/structure. • Use finishing techniques suitable for the product. strengthen, stiffen, reinforce, measure, shape, mark-out, cut, join, finish, stable. **Mechanisms** • Select and use tools with increased accuracy to cut, shape and join chosen materials. • Make accurately assembled product using a cam and shaft. cam mechanism, shaft, tools, cut, shape, join, functional, finish. **Textiles/Materials** • Select and use a range of materials, tools and equipment (could include computer-aided design). • Use carefully selected materials to create a well-assembled, functional and purposeful product.	• Evaluate work during the making process – tweak and improve the product, as necessary. • Peer and self-evaluate products against design criteria considering functional properties and aesthetic qualities. • Evaluate product against existing products and suggest ways their product could be improved. Consider the views of others and accept criticism and suggestions to improve their work.

		pattern piece, cut, join, sew, stitch, finish, shape, tool, fabric, tape, pin. **Electrical Systems/Computing** • Begin to understand how to program, monitor and control a product. electrical component, circuit, control, program, code,	
Year 6	• Investigate and evaluate a range of existing products to inform own designs. • Research and identify design criteria for a product aimed at particular individuals or groups. • Research key individuals/events if relevant to product. • Create detailed annotated sketches, models, cross-sectional and exploded diagrams or prototypes to communicate design ideas. • Use computer-aided design to communicate a design idea.	**Cooking and Nutrition** • Use and apply the principles of a healthy diet. • Prepare and make a savoury dish using increasingly complexed skills and independently applying cooking skills and techniques. • Apply a clear understanding of health and safety in the kitchen. Chop, wash, grate, slice, mix, roll, boil, bake, drain, knead, rub, season, simmer, stir-fry **Structures** • Understand how to strengthen stiffen and reinforce more complex structures. • Use tools to accurately measure, mark out, cut, shape and join materials to make framework/structure. • Use finishing techniques suitable for the product. strengthen, stiffen, reinforce, measure, shape, mark-out, cut, join, finish, stable **Mechanisms** • Select and use tools with increased accuracy to cut, shape and join chosen materials. • Make accurately assembled product using a cam and shaft. cam mechanism, shaft, tools, cut, shape, join, functional, finish **Textiles/Materials** • Select and use a range of materials, tools and equipment (could include computer-aided design). • Use carefully selected materials to create a well-assembled, functional and purposeful product. pattern piece, cut, join, sew, stitch, finish, shape, tool, fabric, tape, pin **Electrical Systems/Computing**	• Peer and self-evaluate products against design criteria considering functional properties and aesthetic qualities. • Evaluate product against existing products and suggest ways their product could be improved. • Consider the views of others and accept criticism and suggestions to improve their work by a wider audience and collate and analyse the outcomes. Use feedback from others to improve/tweak product.

		• Apply understanding of computing to program, monitor and control their product. electrical component, circuit, control, program, code,	