John 8:12 “I am the light of the world. Whoever follows me will never walk in darkness, but will have the light of life.”

ST. PETER’S CE PRIMARY SCHOOL

firm foundations, shining bright

Matthew 16:18 “You are Peter and upon this rock I shall build my church.”

OUR VISION

Like St Peter, we build upon the rock of Jesus to enable us to shine: achieving our God given potential and loving ourselves, others, the world and God.

DESIGN AND TECHNOLOGY

YEAR 3/4

2 YEAR CYCLE LONG TERM PLANNING

DT progression link: https://drive.google.com/file/d/1yfdBwTQqSME_xUR0s2-jfI0r1Dse8WAx/view?usp=sharing

YEAR 3/4

Overall Topic	Cycle 1 Autumn	Cycle 1 Spring	Cycle 1 Summer	Cycle 2 Autumn	Cycle 2 Spring	Cycle 2 Summer
	Roving Romans	**Mountains, volcanoes and Earthquakes**	**Where in the world?**	**Stone Age to Iron Age**	**The Mediterranean - comparison UK and European Study**	**Ancient Egypt**
Design & Technology Outcome	***Mechanical systems*** ***Levers and linkages*** *Designing, making and evaluating a greetings card with moving parts for family or friends*		***Food*** *Designing, making and evaluating a bread-based product with a filling for lunch, such as a wrap, a sandwich, a roll, a blini or a toastie - link to Meditarrean/seasonal food?* ***Structures*** *Designing, making and evaluating CAD-based packaging to protect and display a food product for sale - lunchboxes?*	**Textiles** *Design and make a needle holder for a Stone Age person* OR *Designing, making and evaluating a holder/purse/wallet for a friend or relative instead*		

Skills taught in every unit	**Developing, planning and communicating ideas .** Generate ideas, considering the purposes for which they are designing Make labelled drawings from different views showing specific features Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail Evaluate products and identify criteria that can be used for their own designs **Working with tools, equipment, materials and components to make quality products** Select appropriate tools and techniques for making their product **Evaluating processes and products** Evaluate their work both during and at the end of the assignment Evaluate their products carrying out appropriate test					
Unit specific skills	**Working with tools, equipment, materials and components to make quality products** *Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques* *Join and combine materials and components accurately in temporary and*			**Working with tools, equipment, materials and components to make quality products** *Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques* *Join and combine materials and components accurately in temporary and permanent ways*	**Working with tools, equipment, materials and components to make quality products** *Select appropriate tools and techniques for making their product* *Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and*	

	permanent ways			*Sew using a range of different stitches, weave and knit* *Measure, tape or pin, cut and join fabric with some accuracy Use simple graphical communication techniques*	*techniques* *Join and combine materials and components accurately in temporary and permanent ways* *Use simple graphical communication techniques* *Demonstrate hygienic food preparation and storage*	
Design Taken from Design and Technology National Curriculum - Key Stage 2 ***Bold** = objectives taught*	***use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups***			***use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups***	***use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups***	

	Generate, develop, model and communicate their ideas through discussion, annotated sketches, *cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design*			***Generate, develop, model and communicate their ideas through discussion, annotated sketches,*** *cross-sectional and exploded diagrams,* ***prototypes****, pattern pieces and computer-aided design*	***Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design***	
Make Taken from Design and Technology National Curriculum - Key Stage 2 ***Bold*** *= objectives taught*	***select from and use a wider range of tools and equipment to perform practical tasks*** *[for example, cutting, shaping,* ***joining and finishing],*** ***accurately select from and use a wider range of materials and components, including***			***select from and use a wider range of tools and equipment to perform practical tasks*** *[for example,* ***cutting****, shaping,* ***joining and finishing****],* ***accurately select from and use a wider range of materials and components,*** *including*	***select from and use a wider range of tools and equipment to perform practical tasks*** *[for example,* ***cutting****, shaping, joining and finishing],* ***accurately select from and use a wider range of materials and components,*** *including*	

	construction materials, *textiles and ingredients,* ***according to their functional properties and aesthetic qualities***			*construction materials,* ***textiles*** *and ingredients, according to their functional properties and aesthetic qualities*	*construction materials, textiles and* ***ingredients****, according to their functional properties and aesthetic qualities*	
Evaluate Taken from Design and Technology National Curriculum - Key Stage 2 ***Bold*** *= objectives taught*	*i****nvestigate and analyse a range of existing products*** ***evaluate their ideas and products against their own design criteria and consider the views of others to improve their work***			***investigate and analyse a range of existing products*** ***evaluate their ideas and products against their own design criteria and consider the views of others to improve their work***	***investigate and analyse a range of existing products*** ***evaluate their ideas and products against their own design criteria and consider the views of others to improve their work***	
Technical knowledge Taken from Design and Technology National Curriculum - Key Stage 2 ***Bold*** *= objectives*	***understand and use mechanical systems in their products [for example,*** *gears, pulleys, cams,* ***levers and linkages****]*					

taught						
Cooking and nutrition Taken from Design and Technology National Curriculum - Key Stage 2 ***Bold** = objectives taught*					***prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques*** ***understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.***	
Vocabulary	***Mechanical systems - levers and linkages (Cycle 1, Autumn)*** *mechanism, lever, linkage, pivot, slot, bridge, guide, system, input, process, output, linear, rotary, oscillating, reciprocating, user, purpose, function, prototype, design criteria, innovative, appealing, design brief* ***Cooking and nutrition (Cycle 1, Summer)*** *information about foods from around the world, basic recipes, range of relevant, example foods to taste, and evaluate suitable equipment and utensils such as: knives, chopping board, weighing scales, measuring jugs, bowls, baking trays, spoons – various sizes, parchment paper, plastic film* ***Structures (Cycle 1, Summer)*** *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, evaluating, design brief, design criteria, innovative, prototype*					

	Textiles (Cycle 1, Autumn) *fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam, allowance, user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, aesthetics, function, pattern pieces*
Resources	***Mechanical systems - levers and linkages (Cycle 1, Autumn)*** *books and other products with lever and linkage mechanisms lever and linkage teaching aids card strips, card rectangles, paper, masking tape, paper fasteners, paper binders, stick glue left/right handed scissors, cutting mats, card drill, finishing media and materials* ***Cooking and nutrition (Cycle 1, Summer)*** *name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet planning, design criteria, purpose, user, annotated sketch, sensory Evaluations* ***Structures (Cycle 1, Summer)*** *collection of shell structures for different purposes and users card, squared paper, coloured paper, adhesive tape, masking tape, PVA glue, glue spreaders, acetate sheet, pencils, felt-tip pens, rulers, right/left handed scissors computer with computer- aided design (CAD)software such as Techsoft 2D Primary or Microsoft Word, printer* ***Textiles (Cycle 1, Autumn)*** *Collection of textile products linked to the c/hosen product to be made selection of fabrics and fastenings left/right handed scissors, needles, thread, tape, fabric glue, pins, measuring tape items to use for finishing e.g. fabric paints, threads, appliqué pieces, paints for printing, thin paint brushes*