



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 5/6

2 YEAR CYCLE LONG TERM PLANNING

DT progression link: https://drive.google.com/file/d/1yfdBwTQqSME_xUR0s2-jfI0r1Dse8WAX/view?usp=sharing

YEAR 5/6

| Overall Topic | Cycle 1 Autumn | Cycle 1 Spring | Cycle 1 Summer | Cycle 2 Autumn | Cycle 2 Spring | Cycle 2 Summer |
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| | Anglo Saxons-Vikings | Brazil and Amazon | Baghdad | Ancient Greece | Rivers | Baghdad |
| DT Outcome | Making bread and soup Seasonality | Sewing | Build different home structures- Portable v permanent- link to Baghdad tent v house. Looking at Islamic buildings https://www.bbc.co.uk/teach/class-clips-video/history-ks2-ks3-how-houses-looked-in-baghdad-900ad/zrjvrj6 | Electronics - linked to Science and ICT Flowol 4 | Using a CAM | Making a meal (linked to World Cup Country etc or Baghdad) Seasonality-where food comes from |
| Skills- Developing, planning and communicating ideas | Generate ideas through brainstorming and identify a purpose for their product Develop a design specification Communicate their ideas through detailed labelled drawings Plan the order of their work, choosing appropriate materials, tools and techniques and suggesting alternative methods of making if the first attempts fail Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways including ICT | | | | | |
| Skills- Working with | Select appropriate materials, tools and | Select appropriate materials, tools and | Select appropriate materials, tools, | Select and accurately | Select appropriate materials, tools, | Select appropriate materials, tools and |

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| tools,equipment, materials and components to make quality products (incl food) | <p>techniques. Weigh and measure accurately (time, dry ingredients, liquids) Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens.</p> | <p>techniques and use them safely. Measure and mark out accurately Use skills in using different tools and equipment safely and accurately . Cut and join with accuracy to ensure a good-quality finish to the product Make modifications as they go along Pin, sew and stitch materials together create a product Achieve a quality product</p> | <p>components and techniques. Measure and mark out accurately. Use skills in using different tools and equipment safely and accurately. Assemble components, make working models . Construct products using permanent joining techniques Make modifications as they go along. Achieve a quality product.</p> | <p>assemble materials, and securely connect electrical components to produce a reliable, functional product. Create and modify a computer control program to enable an electrical product to work automatically in response to changes in the environment. Understand the use of computer control systems in products. Apply their understanding of computing to program, monitor and control their products.</p> | <p>components and techniques. Measure and mark out accurately. Use skills in using different tools and equipment safely and accurately. Assemble components, make working models . Construct products using permanent joining techniques Make modifications as they go along. Achieve a quality product.</p> | <p>techniques. Weigh and measure accurately (time, dry ingredients, liquids) Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens.</p> |
| Skills - Evaluating processes and products | <p>Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Record their evaluations using drawings with labels Evaluate against their original criteria and suggest ways that their product could be improved</p> | | | | | |
| Design Taken from Design and Technology | <p>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</p> | | | | | |

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| National Curriculum - Key Stage 2 | diagrams, prototypes, pattern pieces and computer-aided design. | | | | | |
| Make Taken from Design and Technology National Curriculum - Key Stage 2 | <p>Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p>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</p> | | | | | |
| Make | | <p>Demonstrate how to measure, make a seam allowance, tape, pin, cut, shape and join fabric with precision to make a more complex product.</p> <p>Join textiles using a greater variety of stitches, such as backstitch, whip stitch, blanket stitch. Refine the finish using techniques to improve the appearance of their product.</p> | | | | |

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| Evaluate Taken from Design and Technology National Curriculum - Key Stage 2 | <p>investigate and analyse a range of existing products</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Understand how key events and individuals in design and technology have helped shape the world</p> | | | | | |
| Technical knowledge Taken from Design and Technology National Curriculum - Key Stage 2 | Understand and apply the principles of a healthy and varied diet 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. | Children apply their understanding of how to join materials. Fabrics can be strengthened, stiffened and reinforced where appropriate. | Children apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | They understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. They apply their understanding of computing to program, monitor and control their products. | They understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. | Understand and apply the principles of a healthy and varied diet 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. |
| Cooking and nutrition | Weigh and measure accurately (time, dry | | | | | Weigh and measure accurately (time, dry ingredients, |

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| | ingredients, liquids) Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens | | | | | liquids) Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens |
| Vocabulary | <p>Healthy/ balanced diet</p> <p>Eatwell plate</p> <p>different sections e.g protein what does it do</p> <p>grown, reared, caught food</p> <p>Seasonality</p> <p>Savoury / sweet</p> <p>Grilling, boling, baking, frying</p> <p>Appearance, taste, texture, aroma</p> <p>Recipe, ingredients</p> <p>ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs</p> <p>utensils, combine, fold, knead, stir, pour, mix, rubbing</p> | <p>Seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern</p> <p>pieces name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings, iron transfer paper</p> | <p>Frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent design</p> <p>brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional</p> | <p>Input, Output, Process</p> <p>Motor, control</p> <p>Program, monitor, control</p> <p>Reed switch, toggle switch, push-to-make switch, push-to-break switch, light dependent resistor (LDR), tilt switch</p> <p>light emitting diode (LED), bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip</p> <p>control, program, system, input device, output</p> | <p>Cam, snail cam, off-centre cam, peg cam, pear shaped cam follower, axle, shaft, crank, handle, housing, framework</p> <p>rotation, rotary motion, oscillating motion, reciprocating motion annotated sketches, exploded diagrams</p> | <p>Healthy/ balanced diet</p> <p>Eatwell plate</p> <p>different sections e.g protein what does it do</p> <p>grown, reared, caught food</p> <p>Seasonality</p> <p>Provenance</p> <p>Savoury / sweet</p> <p>Grilling, boling, baking, frying</p> <p>Appearance, taste, texture, aroma</p> <p>Recipe, ingredients</p> <p>utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble</p> |

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| | in, whisk, beat, roll out, shape, sprinkle, crumble | | | device, series circuit, parallel circuit Flowol Computer programme | | |
| Resources | Kitchen utensils such as: weighing scales, measuring jugs, bowls, spoons – various sizes, baking trays, parchment paper, plastic film Ingredients depending upon recipes Access to ovens T-towels and cleaning equipment Information about food from around the world video clips of foods in the context of where they come from, used and eaten Range of relevant examples of foods to taste and | Existing textile products for investigation and deconstruction linked to their product wide selection of textiles including reclaimed and reusable fabrics, dipryl pins, needles, thread, measuring tape, left/right handed fabric scissors, pinking shears iron, iron transfer paper, sewing machine range of fastenings, materials for | Products, photographs, web-based resources of existing frame structures card, paper straws, newspaper, square sectioned wood, masking tape, PVA glue pencils, rulers, right/left handed scissors, | Batteries, battery holders, crocodile leads different output devices including bulbs with bulb holders, buzzers, light emitting diodes (LEDs), motors different input devices including micro switches, reed switches and magnets, light dependent resistors (LDRs) wire, automatic wire strippers, masking tape, construction materials and tools as required | Videos and photographs of cams, models or toys with different cam mechanisms MDF, card or wooden wheels, plastic or wooden cams, different types of cam, dowel, card boxes, PVA glue, masking tape, double-sided tape, square section wood, card, corrugated plastic, finishing media junior hacksaws, glass paper, G-clamps, bench hooks, hand drill | Kitchen utensils Ingredients depending upon recipes Access to ovens T-towels and cleaning equipment |

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| | evaluate | insulating or strengthening e.g. bubble wrap, wadding, interfacing finishing materials e.g. sequins, buttons, fabric paints | | | | |
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