

| | Autumn A | Autumn B | Spring A | Spring B | Summer A | Summer B |
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| Year 1 | Dips & Vegetables | | Animal Hand Puppets | | Vehicles | |
| | <p><u>Concepts</u> Nutrition—vegetables, sweet v savoury, cooked v raw, cooking from different cultures—Greece.</p> <p><u>Skills</u> Following a simple recipe, measuring in spoonfuls, cutting, chopping, using a knife and a chopping board, bridge and claw technique, cutting with scissors, mashing, mixing.</p> | | <p><u>Concepts</u> Process of design, making products with fabric, properties of a range of materials, using suitable materials, fixing fabric together, reusing/recycling materials, features of a puppet, features of different animals.</p> <p><u>Skills</u> Research and Investigate: Existing products. Design: Understand criteria (user, purpose, function, appeal), generate/develop ideas, talking, drawing, labelling. Make: Select tools/materials, making paper templates, drawing/cutting shapes, gluing, joining fabric, drying. Use and Evaluate: Recording of children using puppets, evaluate against criteria.</p> | | <p><u>Concepts</u> Process of design, vehicles: user and purpose, mechanical systems: wheels and axles, wheels and axles in everyday examples, structures and materials—strong, stiff and stable. Materials—properties and functionality, vehicles and pollution.</p> <p><u>Skills</u> Research and Investigate: Different types of vehicles, different parts of a vehicle, explore wheels and axles in toy cars. Design: Understand criteria (user, purpose, function, appeal), generate/innovate/develop ideas, talking, drawing, labelling. Make: Select tools/materials for making a toy vehicle with wheels and axles, cutting, different ways of joining decorating, finishing. Use and Evaluate: Car racing in the playground exploring speed, evaluation against criteria and existing products.</p> | |

| Year 2 | Pizza | Pencil Cases | Moving Pictures |
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| | <p><u>Concepts</u> Processed v home-made food, preserving food, cooking from different cultures—Naples, Italy, history and cost of food, savoury.</p> <p><u>Skills</u> Following a simple recipe, measuring using spoons, mixing/making a dough/kneading, rolling and shaping, spreading, cutting/slicing—bridge and claw technique, tearing, presentation, baking.</p> | <p><u>Concepts</u> Process of design, features of a pencil case—size, materials, fastenings, shape, joining, decoration - using suitable materials, properties of different materials, making products with fabric, join fabric together—sewing and gluing, creating stitches with a needle and thread.</p> <p><u>Skills</u> Research and Investigate: Existing products. Design: Understand criteria (user, purpose, function, appeal), generate/develop ideas, talking, drawing, labelling. Make: Select tools/materials, using paper templates/ patterns, drawing/cutting shapes, threading a needle, tying a knot, running stitch, gluing on decoration. Use and Evaluate: Photograph pencil cases, written evaluation against criteria.</p> | <p><u>Concepts</u> Process of design, mechanical systems: levers and sliders, levers and sliders in everyday examples, structures and materials to make levers and sliders in moving pictures strong, stiff and stable.</p> <p><u>Skills</u> Research and Investigate: Levers and sliders, examples of what products which used these: see saw, scissors, hammer, wheelbarrow, shaduf, research examples of moving pictures. Design: Understand criteria (user, purpose, function, appeal), generate/innovate/develop ideas, talking, drawing, labelling, creating a mock up. Make: Select tools/materials for making a moving picture with levers and sliders, cutting, different ways of joining decorating, finishing. Use and Evaluate: Photograph pictures, evaluation against criteria and existing products.</p> |

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| Year 3 | <p style="text-align: center;">Key Rings/ Decorations</p> <p><u>Concepts</u> Process of design, making products with fabric, types of fabric - natural/synthetic, properties of fabric—thickness, softness, stretchiness, how fabric is fit for purpose, features of a key ring/decoration—size, materials, shape, joining, stitching, decoration, movement, passing, catching, throwing, defending, and tackling.</p> <p><u>Skills</u> Research and Investigate: Examples of key rings/ decorations, different fabrics, how to make felt. Design: Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, annotated drawings. Make: Select tools/materials, making paper templates/ patterns, drawing/cutting shapes, pinning, threading a needle, tying a knot, running stitch, backstitch, joining, stuffing, gluing, sewing/gluing on a loop. Use and Evaluate: Photograph, written peer evaluation— against criteria and existing products.</p> | <p>Pop-up Books</p> <p><u>Concepts</u> Process of design, mechanical systems: linkages: moving pivot, fixed pivot, types of motion, linkages: uses and purpose in everyday examples, materials to make linkages in moving books: strong, stiff and stable.</p> <p><u>Skills</u> Research and Investigate: Linkages, examples of what products which used these: clothes horse, lifts, tool box, engines. Design: Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, create annotated drawings and prototypes. Make: Select tools/materials for making pop-up book with linkages, cutting, different ways of joining, decorating, finishing. Use and Evaluate: Photograph books, written evaluation against criteria and existing products.</p> | <p>Pasta</p> <p><u>Concepts</u> Sweet/Savoury, food from different cultures, pasta, pasta production, vegetables are part of a healthy diet, tomatoes—production, preserving.</p> <p><u>Skills</u> Following a recipe, weighing using scales, using a knife—claw method, using a chopping board, chopping, peeling, pressing.</p> |
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| Year 4 | Apple Crumble | Moving Miniature Playgrounds | Cushions |
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| | <p><u>Concepts</u> Sweet/Savoury, British cooking, different varieties of apples, seasonality, apples as part of a healthy diet, environment, sustainability, affordability.</p> <p><u>Skills</u> Following a recipe, weighing using scales, peeling, coring, chopping, using a knife—bridge method, using a chopping board, rubbing fat into flour, sprinkling, baking, cooling.</p> | <p><u>Concepts</u> Process of design, mechanical systems: gears, teeth, interlock, motion transfer, drive gear, driven gear, gearing up, gearing down, gears: user and purpose in everyday examples, structures and materials to make a product with gears — 3d shapes, strong, stiff and stable. Electrical systems: circuits, batteries, bulbs and buzzers.</p> <p><u>Skills</u> Research and Investigate: Gears; examples of products which used these: tin openers, bicycles, how gears on a bicycle work, history of gears, ancient Greek Antikythera mechanism (used to predict astronomical positions). Design: Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, create annotated drawings and exploded diagrams. Make: Select tools/materials for making a moving toy with gears and an electrical circuit, cutting, different ways of joining, decorating, finishing. Use and Evaluate: Written evaluation against criteria and existing products.</p> | <p><u>Concepts</u> Process of design, making products with fabric, types of fabric - natural/synthetic, properties of fabric—thickness, softness, stretchiness, features of a cushion – size, materials, shape, joining, decoration, decoration—appliqué, dribbling, control, passing, receiving, defending, shooting.</p> <p><u>Skills</u> Research and Investigate: Appliqué, cushions, running stitch, backstitch, overcast stitch (whipstitch). Design: Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, annotated drawings. Make: Select tools/materials, making paper templates/ patterns, drawing/cutting shapes, pinning, threading a needle, tying a knot, running stitch, backstitch, overcast stitch (whipstitch), appliqué, stuffing. Use and Evaluate: Photograph, written evaluation, peer evaluation—against criteria.</p> |

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| Year 5 | <p style="text-align: center;">Cams Toys</p> <p><u>Concepts</u> Process of design, mechanical systems: cams, followers, sliders, camshaft, rotary motion, linear motion, cam profiles, everyday examples and purpose of cams mechanisms, structures and materials to make products with cams and followers —3d shapes, strong, stiff and stable.</p> <p><u>Skills</u> Research and Investigate: Cams mechanisms, examples of what products use cams and followers (mechanical toys, sewing machines, engines, clocks), history of cams and mechanisms (Ismail al-Jazari), structure of a cams toy. Design: Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, create annotated drawings, cross-sectional diagrams. Make: Select tools/materials for making a cam toy, cutting, different ways of joining, decorating, finishing. Use and Evaluate: Videoed peer evaluation—against criteria and existing products.</p> | <p style="text-align: center;">Honey Cake</p> <p><u>Concepts</u> Sweet/Savoury, honey production and history, health benefits of honey, baking.</p> <p><u>Skills</u> Following a recipe, measuring using scales and a measuring jug, mixing, cracking an egg, beating, baking, cooling.</p> | <p style="text-align: center;">Bags</p> <p><u>Concepts</u> Process of design Making products with fabric Types of fabric—natural/synthetic Properties and suitability of fabric How fabrics are made—weaving Features of a bag – size, materials, fastenings, shape, joining, decoration, handles. Decoration—appliqué, embroidery.</p> <p><u>Skills</u> Research and Investigate: Methods of decoration—appliqué, embroidery, bag design, materials and features. Design: Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, annotated drawings. Make: Select tools/materials, drawing/cutting shapes, pinning, threading a needle, tying a knot, backstitch, overcast stitch (whipstitch), joining, embroidery, appliqué, plaiting. Use and Evaluate: Written evaluation, photograph, film peer evaluation—against criteria and existing products.</p> |
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| Year 6 | <p style="text-align: center;">Water Walls</p> <p><u>Concepts</u> Process of design, mechanisms: pulleys, Archimedes' screw, everyday examples and purpose of pulleys, purpose of Archimedes' screw, structures and materials to make products with pulleys in everyday examples—3d shapes, strong, stiff and stable, plastics pollution/recycling/reuse, use of electricity and connection to global warming, engineering systems to create environmentally friendly solutions—Nav Sawhney and the Washing Machine Project. Appropriate use of materials.</p> <p><u>Skills</u> Research and Investigate: Investigate water wall and pulleys. Design: Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, create annotated drawings and prototypes. Make: Select tools/materials for making a water wall for Reception with recycled objects, cutting, tying knots, sticking, making holes. Use and Evaluate: Evaluation with user (Reception)— against criteria and existing products.</p> | <p style="text-align: center;">Mezze</p> <p><u>Concepts</u> Sweet/Savoury, bread as part of a balanced, healthy diet, different types, using yeast— leavened/unleavened bread, baking, cooking from different cultures, wheat production.</p> <p><u>Skills</u> Following a recipe, weighing ingredients using scales, using a knife—bridge and claw method, chopping, grating, squeezing a lemon, using a garlic press, seasoning, soaking, mixing, mashing, cracking an egg, cooking with meat.</p> <p style="text-align: center;">Electrical Toys</p> <p><u>Concepts</u> Process of design, electrical toys: user and purpose in everyday examples. Electrical systems: circuits, batteries, bulbs, buzzers and motors. Structures and materials to make a product with an electrical circuit —3d shapes, strong, stiff and stable.</p> <p><u>Skills</u> Research and Investigate: Examples of products which use electrical circuits. Design: Devising criteria (user, purpose, function, appeal); generate/ innovate/develop ideas; create annotated drawings. Make: Select tools/materials for making a toy with an electrical circuit, connecting components, cutting, joining, decorating, finishing. Use and Evaluate: Written evaluation against criteria and existing products.</p> | <p style="text-align: center;">Upcycling Fashion</p> <p><u>Concepts</u> Process of design Fast fashion and globalisation Waste and pollution Upcycling, recycling, sustainability Processes for making clothes—seams and hems Decoration—appliqué, embroidery, buttons, gluing.</p> <p><u>Skills</u> Research and Investigate: Fast fashion, upcycling, recycling, sustainability. Design: Devising criteria (user, purpose, function, appeal), generate/innovate/develop ideas, annotated drawings, pattern pieces. Make: Experimentation with upcycling existing garments, select tools/materials, drawing/cutting shapes, creating pattern pieces, pinning, threading a needle, tying a knot, joining, appliqué, embroidery, running stitch, backstitch, overcast stitch, plaiting, attaching a button. Use and Evaluate: Written evaluation, photograph, evaluation—against criteria and existing products, film fashion show.</p> |
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