# Design and Technology Curriculum Sequence- Year 1

| Honesty | Love | Forgiveness | Respect | Cultural Capital Opportunities | | |
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| Learning to communicate with confidence<br>Asking for help when necessary<br>Giving criticism kindly | Offering to help<br><br>Giving praise to self and others | Being able to accept kind criticism<br>Learn to be patient when sharing | Appreciating the efforts of others<br>Looking after equipment, materials, the classroom environment and each other's work | Investigating products in the school environment, the locality and at home<br>Learning about the impact of nutrition on health<br>Learning where food comes from<br>Learning to use unfamiliar equipment and materials | | |
| **A Love Of Language** | **Aspirations** | **Bringing Learning To Life** | **Emotional Well-Being** | **Resilience** | **Valuing Our Diversity** | **Respect and Responsibility** |
| Reading:<br>-reading technical and other key vocabulary<br>-reading instructions<br>-reading age appropriate information about designers and products<br>-reading peers' writing<br><br>Listening:<br>-listening to instructions<br>-listening to video clips<br>-listening to partners and team members<br><br>Speaking:<br>-communicating with partners and team members<br>-asking questions<br>-using technical and other key vocabulary<br>-describing and explaining ideas, decisions and opinions<br><br>Writing:<br>-labelling drawings<br>-writing technical and other key vocabulary<br>-writing instructions<br>-writing product evaluations | Identify the ways a product will meet the design criteria<br><br>Identify the positive effect the product will have on the intended user<br><br>Self-evaluate their use of equipment and skills and set their own targets for improvement | Evaluating a variety of existing products<br><br>Visits to the locality to investigate products<br><br>Teacher to bring in photos for childr en to sort.<br><br>Practical use of a range of techniques and materials<br><br>Making products that function and are appealing | Learning to be supportive and cooperative<br><br>Being proud of what they have accomplished | Being willing to take risks<br><br>Persevering with new techniques and equipment<br><br>Know that practise brings improvement | Learning about foods from around the world<br><br>Finding out about and valuing people's preferences | Listening to safety instructions and using equipment with care<br><br>Looking after equipment, materials, the classroom / local environment and each other's work<br><br>Giving praise (to self as well as others)<br><br>Giving criticism kindly<br><br>Accept kind criticism<br><br>Asking for help when necessary<br><br>Offer to help<br><br>Learn to be patient when sharing |

| What will they learn? | | In what order? | | | End points |
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| Key Concepts | Key Skills | Autumn 1 | Spring 1 | Summer 1 | |
| Design products that are:<br>-purposeful<br>-functional - appealing<br>-designed for themselves or other identified users<br>-based on design criteria.<br><br>Select from a range of materials according to their properties and characteristics.<br><br>Learn and practise a range of cutting and shaping techniques such as tearing, cutting, folding and curling.<br><br>Learn and practise a range of joining techniques such as gluing, fastening, taping.<br><br>Create products that incorporate lever and slider mechanisms.<br><br>Create structures that are stable and | <u>Designing:</u><br>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make.<br><br>• Design appealing products for a particular user based on simple design criteria.<br><br>• Develop, model and communicate their ideas through labelled drawings, simple CAD (2Paint, Paint) and mock-ups made with card and paper.<br><br><u>Making</u><br>• Plan by suggesting what to do next.<br>• Select and use tools, explaining their choices, to cut, shape and join paper and card.<br>• Use simple finishing techniques suitable for the product they are creating.<br><br><u>Evaluating</u><br>• Explore a range of existing products that use.<br>• Evaluate their product by discussing how well it works in relation to | **Cooking and Nutrition**<br>**Preparing Fruits and Vegetables**<br><u>Technical Knowledge and Understanding</u><br>• Learn and use technical and sensory vocabulary throughout the unit:<br>investigate, design, make, evaluate, user, purpose, ideas, design criteria, product, function, tasting, arranging, popular, fruit and vegetable names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard, flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients<br><u>Technical Knowledge and Understanding</u><br>• Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of *The Eatwell Plate*.<br><u>Technical Knowledge and Understanding</u><br>• Understand where a range of fruit and vegetables come from e.g. farmed or grown at | **Structures**<br>**Freestanding Structures**<br><u>Technical Knowledge and Understanding</u><br>• Learn and use technical vocabulary throughout the unit:<br>design, make, evaluate, user, purpose, ideas, design criteria, product, function, cut, fold, join, fix, structure, wall, tower, framework, weak, strong, base, reinforce, buttress, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic, circle, triangle, square, rectangle, cuboid, cube, cylinder<br><u>Evaluating</u><br>• Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings.<br><u>Designing</u><br>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make.<br><u>Technical Knowledge and Understanding</u><br>• Know how to make freestanding structures stronger, stiffer and more stable.<br><u>Designing</u> | **Mechanisms**<br>**Sliders and Levers**<br><u>Technical Knowledge and Understanding</u><br>• Know and use technical vocabulary throughout the unit:<br>investigate, design, make, evaluate, user, purpose, ideas, design criteria, product, function, slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curved, forwards, backwards<br><u>Evaluating</u><br>• Explore a range of existing books and everyday products that use simple sliders and levers.<br><u>Technical Knowledge and Understanding</u><br>• Explore and use slider and lever mechanisms.<br><u>Technical Knowledge and Understanding</u><br>• Understand that different mechanisms produce different types of movement.<br><u>Designing</u><br>• Generate ideas based on simple design criteria and their own experiences, explaining what they could make. | **Autumn**<br>• Use basic principles of a healthy and varied diet, including how fruit and vegetables are part of The Eatwell Plate.<br>• Understands where a range of fruits come from<br>•Tastes and evaluates a range of fruits.<br>• Designs appealing products for a particular user based on simple design criteria.<br>• Communicates ideas through talk, labelled drawings and ICT (2paint).<br>• Selects from a range of fruits according to their characteristics e.g. colour, texture and taste to create a chosen product.<br>• Uses simple equipment and techniques to peel and cut safely.<br>• Evaluates ideas and finished products against design criteria, including intended user and purpose.<br>• Knows and uses technical and sensory vocabulary relevant to the project.<br>**Spring**<br>• Explores a range of existing freestanding structures in the school and local environment.<br>• Generates ideas based on simple design criteria and their own experiences, explaining what they could make.<br>• Knows how to make freestanding structures stronger, stiffer and more stable.<br>• Develops their design ideas through |

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| freestanding.<br><br>Peel, cut and slice ingredients safely and hygienically.<br><br>Finish products using a range of suitable materials according to their physical and aesthetic properties. | the purpose, the user and the design criteria.<br><u>Technical Knowledge and Understanding</u><br>• Explore and use slider and lever mechanisms.<br>• Understand that different mechanisms produce different types of movement.<br>• Know how to make freestanding structures stronger, stiffer and more stable.<br>• Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.<br>• Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of '*The Eatwell Plate*'.<br>• Know and use technical vocabulary relevant to the project. | home.<br><u>Evaluating</u><br>• Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences.<br><u>Designing</u><br>• Generate initial ideas and design criteria through investigating a variety of fruit and vegetables.<br><u>Designing</u><br>• Design appealing products for a particular user based on simple design criteria.<br><u>Designing</u><br>• Communicate these ideas through talk and drawings.<br><u>Making</u><br>• Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product.<br><u>Making</u><br>• Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely.<br><u>Evaluating</u><br>• Evaluate ideas and finished products against design criteria, including intended user and purpose. | • Develop, model and communicate their ideas through talking, mock-ups and drawings.<br><u>Making</u><br>• Plan by suggesting what to do next.<br><u>Making</u><br>• Select and use tools, skills and techniques, explaining their choices.<br><u>Making</u><br>• Select new and reclaimed materials and construction kits to build their structures.<br><u>Making</u><br>• Use simple finishing techniques suitable for the structure they are creating.<br><u>Evaluating</u><br>• Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria. | <u>Designing</u><br>• Develop, model and communicate their ideas through drawings and mock-ups with card and paper.<br><u>Making</u><br>• Plan by suggesting what to do next.<br><u>Making</u><br>• Select and use tools, explaining their choices, to cut, shape and join paper and card.<br><u>Making</u><br>• Use simple finishing techniques suitable for the product they are creating.<br><br><u>Evaluating</u><br>• Evaluate their own product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria. | talking, modelling, labelled drawings and simple CAD (2Paint).<br>• Plans by suggesting what to do next.<br>• Selects and uses tools, skills and techniques, explaining their choices.<br>• Selects new and reclaimed materials and construction kits to build their structures.<br>• Uses simple finishing techniques suitable for the structure they are creating.<br>• Evaluates their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria.<br>• Knows and uses technical vocabulary.<br>**Summer**<br>• Identifies simple levers and sliders in moving books / products and explain how they work<br>• Assembles strips of card to make simple sliders and lever mechanisms<br>• Uses tools safely<br>• Uses technical vocabulary to describe mechanisms<br>• Develops their design ideas through talking, modelling, labelled drawings and simple CAD (2Paint)<br>• Makes products with sliders and levers, using a range of finishing techniques<br>• Evaluates strengths and weaknesses of their product |