



'Go and do Likewise' Luke 10:25, -37 The Parable of the Good Samaritan
We live with love and compassion, seeking help in times of need

Curriculum Map: Design Technology Year 5

| | Autumn Materials: Bridges and Engineering | Spring Food from other countries: Fajitas | Summer Levers and Pulleys |
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| Content Declarative Knowledge 'I know' | <ul style="list-style-type: none"> - I know the main types of bridges: cable stayed bridges, girder bridges, arch bridges, rigid frame bridges, truss bridges - I know the name of some famous bridges of the world and their engineers - I understand how and why famous bridges are adapted to specific requirements ie gap length, soil type etc | <ul style="list-style-type: none"> - I use knowledge of Mexico and it's climate to learn about the types of foods grown in Mexico ie onions, peppers and types of spices ie chilli, garlic, paprika | <ul style="list-style-type: none"> - I know what levers and pulleys are. - I understand that different mechanisms produce different types of movement - I know what is meant by iterative design |
| Skills Procedural Knowledge 'I know how to' | <p>Design</p> <ul style="list-style-type: none"> - I know how to generate innovative ideas through research including surveys, interviews and questionnaires and discussions with peers to develop a design brief and criteria for a design specification - I know how to design purposeful functional, appealing products for the intended user that are fit for purpose based on a simple design specification - I know how to design and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views and, where appropriate, computer-aided design <p>Make</p> <ul style="list-style-type: none"> - I know how to produce detailed lists of equipment and fabrics relevant to my tasks - I know how to write a step-by-step plan, including a list of resources required - I know how to select from and use, a range of appropriate utensils, tools and equipment accurately to measure and combine appropriate ingredients, materials and resources. <p>Evaluate</p> <ul style="list-style-type: none"> - I know how to investigate and analyse products linked to my final product - I know how to compare the final product to the original design specification and record the evaluations - I know how to test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. - I know how to consider the views of others to improve their work. | | |

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| | <ul style="list-style-type: none"> - I know how to cut wood or chosen materials - I know how to construct a bridge applying components to strengthen and reinforce the structure - I know how to identify weak points during construction and incorporate strength and reinforcing solutions where appropriate | <ul style="list-style-type: none"> - I know how to make fajitas - I know how to make a spice mix - I know how to fry beans, peppers and onions | <ul style="list-style-type: none"> - I know how explore and use levers and pulleys. - I know how to use trial and error to for iterative design. |
| Vocabulary | Design decisions, functionality, authentic, user, purpose, design, specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype, frame, structure, strengthen, stiffen, reinforce | Ingredients, flour, spice, carbohydrate, protein, seasonality, utensils, combine, stir, pour, mix, healthy, varied, gluten | Design decisions, functionality, authentic, user, purpose, design, specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype, slider, lever, pulley, pivot, slot, bridge/guide, iterative design, trial and error |
| Key Questions | What are the best materials and designs for designing a bridge that can bear a load? How can I join materials together to make a bridge? (include design) How successful is my final product? | How does Mexico's climate affect which foods grow there? How can we make tortillas, spice mix and a veggie filling? How expensive is it to make fajitas? | How does iterative design work? How can we use iterative design to optimise a pulley system? How can we use iterative design to optimise a lever system? |
| Assessment | Teacher observation against key declarative and procedural knowledge, analysis of final product and children's evaluations. | | |
| Cross Curricular Links/Character Education | Cultural awareness: knowledge of famous bridges and engineers | Geography: links to seasonality and knowledge of Mexico's climate | Science: testing and changing variables |