All Souls' Catholic PRIMARY SCHOOL

Design Technology Curriculum Overview

2024-25

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn	**Rain Catcher** - look at various instruments to record the weather – what can be recorded? How would they go about recording these things? - set the challenge of making an instrument to measure rainfall - set criteria for its success - develop skills in cutting, manipulating and joining the materials being used - construct, test and evaluate	**Boats and vehicles** - what is a boat, what do they look like and how can they be powered? - set children the challenge of making a boat which must float and which must be able to travel a minimum of 50cm across water, without being touched - experiment with materials for them to decide what they might wish to take it out of - the boat should be no longer than 30cm - practice cutting, manipulating and joining materials using a range of techniques - design, construct, test and evaluate	**Food and Nutrition: Sandwiches** - what is a sandwich – why are they a good choice of snack? - what is the structure of a sandwich - taste a variety of breads and sandwiches and examine flavours and textures - look at the nutritional value of various sandwich ingredients - plan and design a sandwich for a school trip - make sandwich (or wrap) and package it - evaluate sandwich	**Food & Nutrition: Pizza or Bread** - what is a pizza, what is the history, where do they come from and what do they look like - what types/flavourings of pizza are there - examine, describe and categorise a range of pizza toppings and their associated food groups - design a healthy pizza - make a pizza dough - add toppings as designed and cook - taste and evaluate	**Food and Nutrition: Savoury Roll** - explore different types of sausage/vegetarian based rolls/pastries and their nutritional facts - explore how to make different savoury rolls - explore pastries, fillings, sauces, toppings and side dishes that can accompany savoury rolls - plan and design a savoury roll to make - make and cook a savoury roll - taste and evaluate	**Structures - bridges** - investigate the purpose, appearance and structure of bridges - develop skills in drawing annotated exploded diagrams of bridges - practise and develop skills in woodwork, learning how to cut, sand, drill and join wood effectively - design a bridge for a specific load - construct model bridge using materials and construction methods practised - decorate and test item - evaluate
Spring	**Buildings** - look at key buildings/landmarks both around the city and the world - what materials are they build out of? - what shapes can they see in these buildings - children choose a building to construct using art straws - map out how they will construct the building by making over an image of the building - learn and practise ways to join and strengthen art straws - construct and evaluate	**Food and Nutrition: Healthy soup** - what is soup? - look at cans of soup – ingredients - taste and evaluate a range of different soups to understand flavouring and texture - discuss use of potato and cream in production of soup - discuss composition of soup and essential ingredients - display possible additional ingredients and vegetables - children to design their own soup – selecting the ingredients they would like - discuss process - make and taste soup – trying various types of bread alongside to decide which would be the most appropriate - children design either a recipe card or a label for a tin - evaluate	**Green Houses** - look at greenhouses and their purpose/structure and the way that they work - develop understanding of strong and stable structures and properties of materials that can be used to create a greenhouse - explore different designs of greenhouses and select one to make - construct, test (using a live plant), and evaluate	**Musical Instruments** - look at existing instruments and classify into groups based upon how they are played and/or the sound that they make - create simplified models (drawings) of how these instruments work and could be constructed and the materials that are used - in groups set the challenge of creating an ensemble which will combine to compose a piece of music – they should, therefore have un-tuned as well as instruments capable of producing varying pitches - design instruments to be made out of recycled/reclaimed materials - make, test, compose, perform, evaluate	**Photo frames** - investigate a range of picture frames, their design, construction, materials and function - how are they used e.g. wall mounted/freestanding - dismantle picture frame and reverse engineer – what parts are needed and for what purpose - develop understanding and skill in using tools to create a range of basic wood joints - design a photo frame – in conjunction with the macro photography unit in art - design should be made from wood, require joints and decorative work and embellishments - choose and use materials and tools to create a frame as designed - mount photo and test frame - evaluate	**Food and Nutrition: Baked/Unbaked** - what are desserts? Why do we have them? How can they fit into a balanced/healthy diet - taste a range of baked and unbaked dessert. Can the children classify these and identify traits of each - using their own likes and preferences, design (using access to online recipes) either a baked or unbaked dessert (cake, biscuit, tiffin, cheesecake, rocky road etc) - plan and produce an instruction card for the production of their dessert - make/bake dessert using own instructions - taste and evaluate
Summer	**Food and Nutrition: Triple Salad** - look at food that we eat which have been grown - classify them depending upon which part of the plant they have come from: roots, stem, leaves, fruits, seed etc. - discuss what a salad is and show children common ingredients of salads - children identify from which part of plants these have come from - look at methods for preparing salad components – chopping, grating, slicing, cutting etc. - children to design a 'triple' salad, using three ingredients, each of which has come from a different part of a plant - make, taste, evaluate	**Moving Pictures** - children look at a range of books with moving parts and discuss their impact - practise and learn a range of ways to make moving parts within an image or book - design own moving image using the range of techniques learnt - construct, test, evaluate	**Story Books** - investigate and evaluate products, including story books, with lever and linkage systems - experiment and develop skills in creating moving mechanisms - explore and use a range of different graphic fonts and techniques - plan and design a story book - select and use tools, materials and techniques to create a story book - evaluate story book	**Lego coding** -Investigate Lego mechanical blocks and coding software -Present challenge to each team, how can it be solved using different tools? -Produce a solution, documenting process with photos and notes -Create a final poster that explains problem and solutions made	**Shelters** - investigate a range of shelters, their purpose, structure, appearance and material construction - what characteristics must a shelter have? - use a range of challenge cards to set the children the challenge of designing a shelter for a purpose - produce a range of design ideas before developing a final design which is annotated with materials and construction methods - select, choose and use a range of materials and techniques to construct a model of the shelter - evaluate the design and think about potential costs if the shelter were to be made full size out of real materials	**Pencil Cases** - investigate a range of pencil cases – their materials, shapes, designs and functions - what are the common characteristics, and which are design specific - reverse engineer a range of pencil cases and determine the construction methods - design their own pencil case to use at secondary school - identify the techniques and skills required and practise - construct pencil case - evaluate