St Joseph's Catholic Primary School
Design and Technology Long Term Plan

EYFS
Children will be able to; **Explore different materials freely, to develop their ideas about how to use them and what to make.** **Develop their own ideas and then decide which materials to use to express them.** **Join different materials and explore different textures.** **Explore different materials freely, to develop their ideas about how to use them and what to make.** **Develop their own ideas and then decide which materials to use to express them.** **Join different materials and explore different textures.** **Create collaboratively, sharing ideas, resources and skills**

KS1			
	Autumn	**Spring**	**Summer**
Cycle A	**Perfect Pizzas** To examine, describe and categorise a variety of bread based products. To examine, describe and categorise a variety of pizza toppings. To design a balanced healthy pizza To be able to make and evaluate a food product based on a design.	**Stable Structures** Explore the features of stable structures Design and plan a stable structure Explore a range of materials and make decisions based on the end product Follow a design to make a product Evaluate a product	**Puppets** Investigate a selection of puppets and their features Develop and practice sewing skills Design a glove puppet Follow a design to make a puppet Evaluate a finished product
Cycle B	**Eat more Fruit and Vegetables** Examine, taste and describe a variety of fruits and vegetables Learn how to handle and prepare a variety of fruits and vegetables Design a recipe to include fruits and or vegetables	**Moving Minibeasts** Create a sliding mechanism Use levers and pivots to create a moving mechanism Create a wheel mechanism Design a picture with a moving mechanism	**Vehicles** Investigate a variety of vehicles and their uses and features Investigate wheels, axles and chassis Investigate ways of creating and decorating the body of a vehicle Design and make a vehicle

	Make and evaluate a food product based on design	Make and evaluate a picture with a moving mechanism	Evaluate a finished product
Lower KS2			
	Autumn	**Spring**	**Summer**
Cycle A	**<u>Seasonal Stockings</u>** To explore and analyse existing products To explore different ways to join fabric using sewing skills To design a Christmas stocking To use sewing skills to make a Christmas stocking To evaluate a finished product	**<u>Making Mini Greenhouses</u>** To explore existing greenhouses To investigate stable structures To investigate materials for making a mini greenhouse To design a mini greenhouse To make and evaluate a mini greenhouse	**<u>Seasonal Food</u>** To investigate what seasonal food means and explore availability of seasonal/non seasonal products in supermarkets and benefits/problems with this To know how seasonal fruits in Britain are grown and processed (VISIT TO PICK YOUR OWN FRUIT FARM) To understand why vegetables form an important part of a healthy and varied diet (STUFFED PEPPERS RECIPE) To demonstrate understanding of eating seasonal foods as part of a healthy and varied diet
Cycle B	**<u>Storybooks</u>** To investigate and evaluate products with lever and linkage systems To experiment with a range of techniques to create moving mechanisms To explore and experiment with a range of fonts and graphic techniques To plan and design a story book	**<u>Light-Up Signs</u>** To investigate and analyse illuminated signs To develop ideas for a decorative illuminated sign To select and use tools, equipment and components to make the enclosure of a decorative illuminated design	**<u>British Inventors</u>** To investigate the invention of the telephone To investigate the invention of the World Wde Web To investigate how the invention of reinforced concrete works To investigate the invention of the mackintosh

	To make and evaluate a story book	To construct a working circuit with one or more lights and fit it in a decorative illuminated sign Investigate ways in which computers can be used to control lights in a product (SCRATCH)	To reflect on the impacts that inventions have had on our lives
Upper KS2			
	Autumn	**Spring**	**Summer**
Cycle A	**<u>Programming Pioneers</u>** To explore how computers and computer programs are used in a variety of products To develop ideas for a product with an embedded computer system that controls it (SCRATCH) To develop, model and communicate ideas for an embedded system which monitors and controls a light or alarm To write programs to monitor and control a product To evaluate a design for a computer-controlled system	**<u>Bird House Builders</u>** To investigate the purpose and appearance of bird houses To investigate the materials and features of bird houses and how to draw diagrams To investigate and practise woodwork skills To design a bird house for a specific bird To make a bird house, following a plan, and evaluate it	**<u>Chinese Inventions</u>** To understand how the four great inventions of China shaped the world (LESSONS 1 & 2) To investigate water powered machines Create: • PAPER (SEED PAPER) • COMPASS • WATER CLOCK
Cycle B	**<u>Burgers</u>** To explore different types of burgers and their nutrition facts To explore how to make burger patties	**<u>Fashion and Textiles</u>** To investigate and analyse items made using textiles To explore some ways in which textiles are joined and decorated	**<u>Building Bridges</u>** To explore ways in which pillars and beams are used to span gaps To explore ways in which trusses can be used to strengthen bridges

	To explore sauces for burgers and evaluate bread buns for purpose To plan and design a burger To make a burger and evaluate the process	To design an item made using textiles and draw pattern pieces (BAG) To use pattern pieces to measure, mark and cut fabric Sew design elements according to design Join fabric pieces and produce a hem by hand sewing	To explore ways in which arches are used to strengthen bridges To understand how suspension bridges are able to span long distances To develop criteria, design and evaluate a prototype bridge for a purpose