



# Design and Technology

## at St Mary's Catholic Primary School



### Beyond St Mary's

Our children are confident and inspired to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs. Our children are confident to take risks, becoming resourceful, innovative, enterprising and capable citizens.

### Year 6

#### Textiles: Waistcoats

Children will select suitable fabrics, using templates, pinning, decorating and stitching to create a waistcoat for a person.

#### Structures: Playgrounds

Children will design and create a model of a new playground featuring five apparatus, made from three different structures.

#### Digital World: Navigating the World

Children will program a navigational tool to produce a multifunctional device for trekkers.

### Year 5

#### Electrical Systems: Doodlers

Children will explore series circuits and introduce motors.

#### Mechanical Systems: Making a Pop Up Book

Children will create a four-page pop-up storybook design incorporating a range of mechanisms and decorative features.

#### Cooking and Nutrition: What Could Be Healthier?

Children will research and modify a traditional bolognese recipe to make it healthier.

### Year 4

#### Structures: Pavilions

Children will investigate how to create strong and stable structures before designing and creating their own pavilion.

#### Mechanical Systems: Making a Slingshot Car

Children will transform lollipop sticks, wheels, dowels and straws into a moving car.

#### Electrical Systems: Torches

Children will be able to apply their scientific understanding to electrical circuits to create a torch.

### Year 3

#### Cooking and Nutrition: Eating Seasonally

Children will learn about seasonality in the UK and the relationship between the colour of fruits and vegetables and their health benefits by making three dishes.

#### Digital World: Electronic Charm

Children will design, code, make and promote a Micro:bit electronic charm to use in low-light conditions.

#### Structure: Constructing a Castle

Children will explore how shapes and negative spaces can be represented by three dimensional forms.

### Year 2

#### Structure: Baby Bear's Chair

Children will help Baby Bear by making him a brand new chair.

#### Mechanisms: Fairground Wheel

Children will design and create their own Ferris wheel, considering how different components fit together

#### Mechanisms: Making a Moving Monster

Children will design a monster which will move using a linkage mechanism.

### Year 1

#### Structures: Constructing Windmills

Children will design, decorate and build a windmill for a mouse to live in.

#### Textiles: Puppets

Children will explore different ways of joining fabrics before creating their own hand puppets.

#### Cooking and Nutrition: Fruits and Vegetables

Children will handle and explore fruits and vegetables before taste testing to establish their chosen ingredient for a smoothie.

### EYFS

#### Expressive Arts and Design

Expressive arts and design is one of the seven areas of the early years foundation stage and is used to develop a child's imagination, creativity and their ability to use media and materials! Children do this in a range of ways including singing songs and making music but also through playing with colours, textures and design.

All these approaches to expressive arts help our children to represent their own feelings and ideas.