

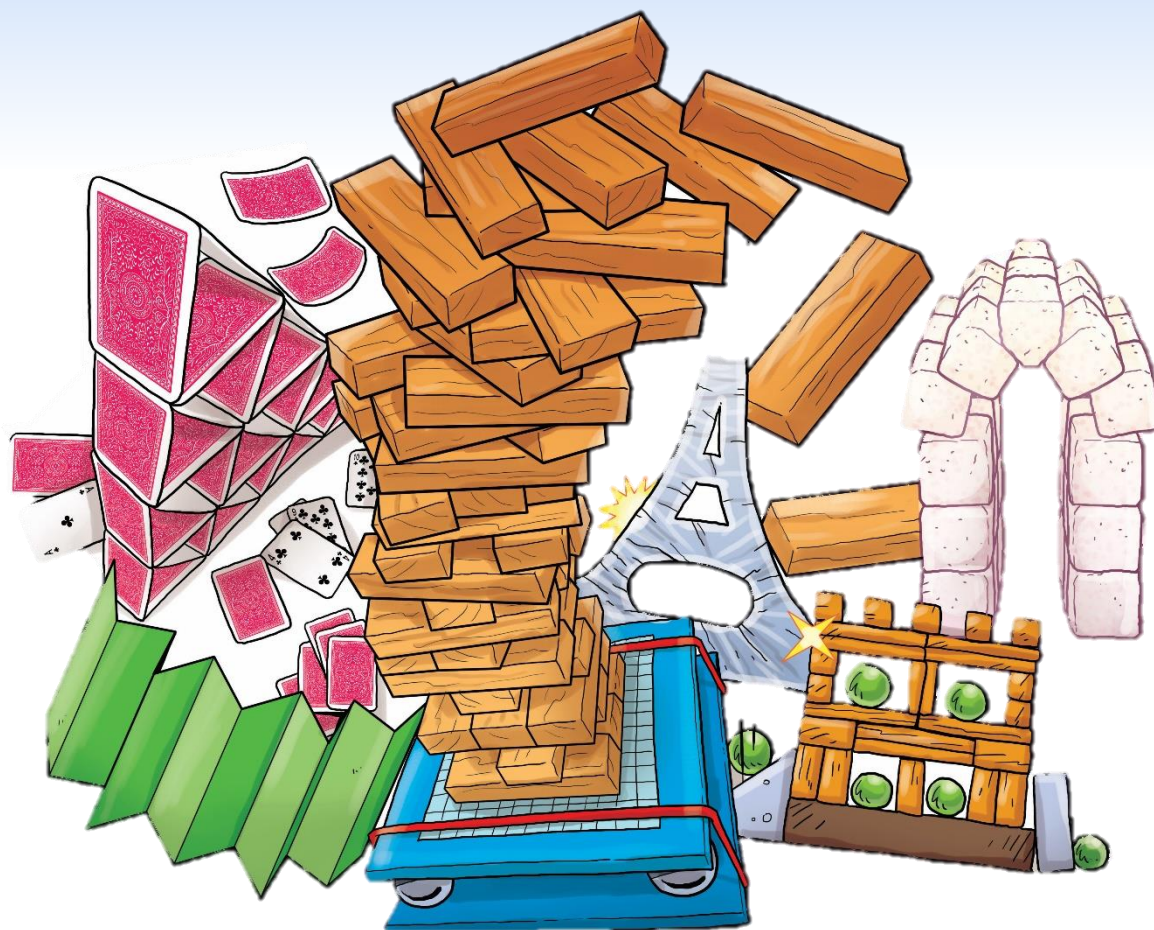


**St. Peter's**  
Catholic Primary School

# Shake Things Up

Key Stage 2, Year B, Summer Term 1

6 weeks



## We put Jesus at the heart of everything that we do.

special kind unique inventive  
generous awesome gentleness  
purity helpful good positive  
expressive enjoyable caring  
adventurous bouncy zingy  
fun truth colourful superb  
confident polite compassion  
friendly enthusiastic marvellous  
comforting nice remarkable  
happy magnificent great  
meaningful forgiveness  
exceptional joy wonderful  
interesting creative hopeful  
incredible spectacular  
original brilliant peace  
lovely service outstanding  
dynamic amazing  
dignity fabulous impressive  
beautiful sacrifice  
glorious fantastic tolerance  
exciting terrific delicious  
integrity cool considerate  
phenomenal laughing funny  
sharing humility loving  
energetic smiling captivating  
justice encouraging mercy  
gracious faithful important  
supporting delightful thankful  
hard-working tremendous



### The aims of our curriculum:

- We aim to be like Jesus the teacher, where all children learn to be good, inquisitive learners, capable of making our world a better place. Like Jesus our shepherd, no child will be left behind.
- We want our children to know more and remember more
- We aim to provide our children with a broad curriculum, rich with cultural capital.
- We aim to teach what is required from the National Curriculum as a minimum.
- We aim to create a curriculum that is teachable, clear and practical where possible.
- We want all of our children to progress so that they can tell us about their own progression in learning.
- We want our children to be able to tell us why they are learning what they are learning.

*“They said, “Come, let us build for ourselves a city, and a tower whose top will reach into heaven, and let us make for ourselves a name, otherwise we will be scattered abroad over the face of the whole earth.”*

*Genesis 11:4*

# Our Curriculum Drivers:

## Catholic Social Teaching

Complete the CAFOD activity 'A Divided World', to learn about the distribution of world resources.

Formulate a plan that countries could use to ensure that the world's resources are more fairly distributed.

## Our Resilience

Learn the think, make, break repeat process for design.

Children are to complete several DT tasks that require them to break their own work. Children to learn how to appropriately break (emulating real life threats a product would be exposed to) and not just smash stuff up!

## Our Community

Visit the suspension bridge in Jephson Gardens.

Make sketches of the bridge.

Upon your return to school, use water colour paints to add colour to the sketches and use fine line pens to go over pencil lines to add clarity and detail.

## Sustainability

When conducting the paper chair challenge, children are only allowed to use paper that they have collected from recycling.

All paper is to be recycled so that this activity has a carbon footprint of 0

## Diversity and inclusion

Create a play hour for EYFS children that will teach them about the principles of Diversity and Inclusion.

# Shake things up!:

## As designers, we will:

- Learn about structures
- Explore how to strengthen and stabilise our structures

We will base our learning in sunny California! We will find out about how one of the biggest challenges in earthquake zones, such as California in the USA, is to create buildings that can withstand the shake of an earthquake. We will research shear forces and ways engineers design earthquake-proof buildings. Our Shake Things Up Challenge will be to build a shake platform to test our prototypes and modify them until they keep the occupants of our buildings safe.

We will also explore different ways to create buildings from blocks and shapes. To do this we will create our own 'Angry Birds' structures out of real materials to see how we can withstand the birds crashing into them!

We will discover how arches are very strong shapes and we will see how architecture throughout the ages has used the arch to create stable structures and openings. We will take the Sugar Cube Arch challenge, where we will have to build our own arches out of sugar cubes.

We will explore how to stiffen and strengthen materials by rolling, folding and combining them. We will take part in the Paper Chair Challenge where we will need to make a chair that will hold our own weight out of paper!

Our next challenges will be to make a Tin Foil Tower that is strong and stable and uses only paper and tin foil, a spaghetti structure that turns a brittle material into a strong structure, and a house of cards which will turn flexible and light playing cards into a strong, stable house.

Finally, we will take part in the Great Bridge Challenge, where we will need to use all of our knowledge of structures to build a suspension bridge that is at least half a metre in length. The winner of the challenge will be the team with the best designed and strongest bridge.

## As writers we will:

- Write explanations about our designs
- Write persuasively to seek funding for our designs
- Present information about earthquakes and forces
- Write stories based on the 1906 earthquake disaster in San Francisco
- Write reports about the Golden Gate Bridge, its design and make process and its purpose within its community
- Write poems to convey the horrors of earthquakes

## As mathematicians we will:

- Describe the properties of 3D shapes

## As artists we will:

- Create drawings and paintings of earthquake destruction

## As scientists we will:

Learn that force causes an object to start moving, stop moving, speed up, slow down or change direction. Gravity is a force that acts at a distance. Everything is pulled to the Earth by gravity. This causes unsupported objects to fall. Air resistance, water resistance and friction are contact forces that act between moving surfaces. The object may be moving through the air or water, or the air and water may be moving over a stationary object. A mechanism is a device that allows a small force to be increased to a larger force. The pay back is that it requires a greater movement. The small force moves a long distance and the resulting large force moves a small distance, e.g. a crowbar or bottle top remover. Pulleys, levers and gears are all mechanisms, also known as simple machines