St. Peter's
Catholic Primary School

Bridging the Gap

Lower Key Stage 2, Year B, Summer Term 1

6 weeks

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

St. Peter's
Catholic Primary School

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	Our Resilience	Our Community	Sustainability	Diversity and inclusion
Caritas in Action: FAMILY AND COMMUNITY Key Stage 2 – Session 1 Focus: What makes a community?	During our DT project, we will make a prototype which we will deliberately break. We will break the prototype by applying pressure similar to the pressure the product would experience in real life. We will learn lessons from this process; it won't just be about 'smashing it up', but we will break it carefully and identify exactly what the process teaches us so that we don't make the same mistake again.	We will go on a bridge walk of Leamington. We will take photographs of the different bridges that we see and use these to influence our work. We will look at the railway bridge by Foundry Woods and the art work on it and use this to inspire our own bridge art. We will learn why there are different bridges in Leamington, what they are used for and the connections that they make.	We will try to get to school carbon neutrally for a week during 'walk to school week' We will calculate our normal weekly carbon emission. We will try to walk to school on walk to school week. We will ask parents to sponsor us £1 a day to walk to school, or to walk part of the way. We will calculate our carbon footprint in W2SWeek and see the difference. We will use our £1s to plant trees and offset the carbon that we used in the week.	We will learn about Fair Trade on Fair Trade Day. We will learn about how this inclusive practice ensures communities are treated with respect and helped to flourish. We will take part in some activities to support this cause through the school all day (See separate plan)

Bridging the Gap:

As Designers, we will:

We are going to learn about the famous bridges of the world and how they are all structurally different from one another. We will use maps to locate the bridges and understand why bridges were built in those locations to support growing communities. We will learn about:

- Beam bridge – Donghai Bridge – longest sea bridge
- Truss bridge Ikitsuki Bridge
- Cantilever Bridge – Forth Bridge (NOT THE FORTH ROAD BRIDGE!)
- Arch bridge – The Iron bridge, Rialto bridge
- Tied Arch Bridge – Sydney Harbour
- Suspension Bridge – Golden Gate Bridge, Clifton Bridge, Tower bridge
- Cable Stayed Bridges – Jiashao Bridge, Brooklyn Bridge

We will learn about frame structures and use these to design, make, break and remake our own bridges. We will learn about the theory of triangulation, using annotated drawings to show our understanding of how frames our made and joined, and then use lollypop sticks to test the rigidity of triangle frames verses square frames, with and without jinks' corners. We will develop our finger fluency and practice assembling frames in different ways to investigate the best way to assemble structures. We will explain how the frames are made and joined, using annotated diagrams and we will investigate with a variety of 3D shapes. We will learn about Truss bridges, labelling and annotating pictures to show design features. We will list materials that Truss bridges are made from and we will use this knowledge, (as well as our newly acquired practical knowledge of frame structures) to design and make our own Truss bridge. We will design our own Truss bridge, using the following learning sequence to create our end product successfully:

- a product overview sheet (think)
- a mood board to give more detail about your inspiration (think)
- a design sheet (think)
- pictures of your product (make)
- diagrams or pictures of how you tested your product (break)
- diagrams or pictures of how you re-thought your design (think)
- diagrams or pictures of your improved design (make).

Remember: if your product design does not have a purpose and users in mind you are creating an artwork, not a product. Make sure you design a product.

We will use inspiration from local artists to decorate our bridges, using themes from our local community as our inspiration.

As writers we will:

- Write a biography of Isambard Kingdom Brunel, the civil engineer who created the Clifton Suspension Bridge in Victorian Britain.
- We will read Oliver Twist, a story set during the Industrial Revolution
- Write a riverboat tour of the East River in New York, informing visitors about the history of the bridges

As mathematicians we will:

- Angles in a triangle and right angles
- Learn about the importance of accurate measuring.

As artists we will:

- Look at bridge artwork in the local community and use this as inspiration for creating our own artwork for our bridges

https://leamingtonobserver.co.uk/news/artist-brightens-up-leamingtons-railway-bridge/

As scientists we will:

- A force is a push or a pull. When an object moves on a surface, the texture of the surface and the object affect how it moves. It may help the object to move better or it may hinder its movement e.g. ice skater compared to walking on ice in normal shoes.
- A magnet attracts magnetic material. Iron and nickel and other materials containing these, e.g. stainless steel, are magnetic. The strongest parts of a magnet are the poles. Magnets have two poles – a north pole and a south pole. If two like poles, e.g. two north poles, are brought together they will push away from each other – repel. If two unlike poles, e.g. a north and south, are brought together they will pull together – attract.
- For some forces to act, there must be contact e.g. a hand opening a door, the wind pushing the trees. Some forces can act at a distance e.g. magnetism. The magnet does not need to touch the object that it attracts.