

# Spring 1 – We are Engineers: Innovating and Inventing

This theme is centred around the skills of STEM (Science, Technology, Engineering and Maths) to solve problems and create products. All children will be given a design brief to follow in order to create their own products – they will then explore the 'design, make, evaluate process' to create their products. Some children will have the opportunity to combine their products with elements of computing to develop 21st century products.



# Year 2:

Climbing the battlements or tunnelling in the ground, there's a whole world of adventure and fun to be found! This half term, we will explore castles: the towers, battlements and maybe a secret tunnel or two! We'll learn all about the different parts of a castle and describe how they have changed over time. Using a wide range of materials, we'll build models of castles and test the strength of our structures. We'll find out about the amazing Victorian engineer, Isambard Kingdom Brunel, and learn about our Monarchy. At the end of our project, we'll have so much to share! We'll display our amazing structures and share our knowledge in a special themed afternoon.

## **Theme Impact**

Children will build upon their skills and knowledge from Year 1. They will focus on developing their skills as historians and designers. They will research famous engineers and look at the methods that they have used before designing and creating their own structures before evaluating them. They will research the Monarchy and learn about their lives.

Home Learning Project			
You are King or Queen for the day. What 10 rules would you have the people of the United Kingdom follow?	Go on a bridge hunt with your grown-ups around the local area, taking photographs to show your class. What types of bridge have you seen? Choose the most interesting bridge and see what you can discover about it online or at the local library?	Draw and label your very own castle and write a vivid description of both the inside and outside of the castle. Remember to include plenty of amazing adjectives!	Carry out an investigation using materials found in the house to see if items float or sink in water for example, a sponge, a flannel, a toy car, a plastic spoon. Children to write down what they predict will happen to each object. Were they correct? Why did they think these items would float or sink?
Attack! Attack! Your about to go to battle! Quickly make your own shield and helmet so you are ready for battle	Research and create a fact file about Windsor Castle. When was it built? Who built it? Why? What's it made of?	Plan afternoon tea for the King and cost it. Make sure to tell me how much every item costs and the total.	Design a coat of arms for your family.

# Enrichment

We will visit a Medieval Great Hall to extend our knowledge on castle life. We will share our knowledge during a themed afternoon where we will invite parents and carers in.

#### Wider Curriculum

Design Technology History Geography

#### Maths

- Properties of Shape
- Money
- Multiplication and Division.

# RE

Christmas Parables and Miracles

#### Computing

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs.
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

### PE

Gymnastics

# **Class Text**

