

# STEM Family Home Learning Project

This term's home learning project invites you to think about STEM. This is an opportunity for children to explore the fascinating role that (S.T.E.M) science, technology, engineering & maths play in the world around us. You will be presenting your projects during the STEM exhibitions, after the half-term!

## Science experiments

- ⇒ Plan and carry out a science experiment.
- ⇒ Explain what the science is behind the experiment.
- ⇒ Design and make a simple machine.



Present: Speak about the experiment that you are going to carry out before you show how it works. Or you could take pictures of you carrying out your experiment at home, then speak about what you did and what you discovered! (Remember that any experiments you plan to do must be **safe** and carried out with an adult).

## Famous Scientists and inventors

- ⇒ To research the life of a famous scientist or inventor.
- ⇒ Write a biography based on a famous mathematician, scientist, or engineer.
- ⇒ Write key information explaining why they are famous.

Here are some ideas for scientists and inventors you could research



Valentina Tereshkova



Garrett Morgan



Dr Daniel Hale Williams



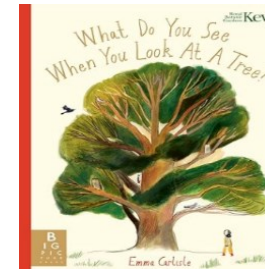
Maggie Aderin-Potock

Present: Use your best handwriting for your presentation. You can do this in the form of a poster or write/type this on an A4 piece of paper. Try to memorise key parts in preparation to read this out loud.

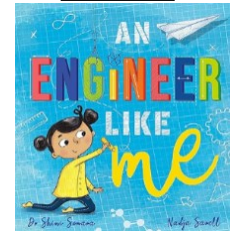
## Reading

Read a book with a STEM theme. Some great examples of books are:

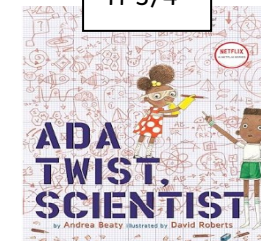
EYFS



KS1



Yr 3/4



Year 5/6



Present: To write your own version of your chosen story or write a book review and bring it back to school to share. If reading a non-fiction book, you could present some of the information that you found out.

## Maths

- ⇒ Create a poster about a maths problem.
- ⇒ Create a mathematical puzzle.

$$\begin{array}{c} \text{🍒} + \text{🍒} + \text{🍒} = 15 \\ \text{🍒} + \text{🍎} + \text{🍎} = 23 \end{array}$$



Present: Explain your maths problem and how you solved it. Demonstrate how to solve the mathematical puzzle and explain what you learnt.

## DT

- ⇒ Design and build a structure of a building or a bridge
- ⇒ Design and build a model of a boat
- ⇒ Build an aerodynamic car or plane



Present: Write about how you built your structure or model. Explain what it is and how you got it to work.

## Trip

Visit the **Science Museum** to see the Mathematics Winton gallery to learn about how mathematics has shaped the world.

Whilst at the **Science Museum**, why not visit some of the other galleries?



Present: Take pictures and create a poster/booklet of your day, showing us what you learnt.

## Food

- ⇒ Have fun making a healthy balanced meal.
- ⇒ Prepare healthy food for different meals within the day.



Present: Take pictures of you making a healthy balanced meal. Explain the importance of eating healthily and having a balanced diet.

## Engineering

Lillian Moller Gilbreth (1878-1972) made huge improvements to the way we use everyday appliances, such as shelves in the fridge doors and pedal bins.



Present: Find out about Lillian's life and how she made improvements to everyday things. Share everything you learned about her.

## Computing

Computing has changed our everyday world. From the way we live, work and communicate.

- ⇒ Have a go at designing a template for a new website. You can do this on any platform you wish.
- ⇒ Create a poster to discuss how computing technology has evolved over time.

Present: Print or draw your website design and be prepared to discuss how it would work or present how computing technology has evolved over time.

