

Spring 1 Year 5 – Living with the power of Mother Nature (Part 1)

Herne Junior School

Description/Theme Intent:

The theme will start with the children investigating what volcanoes are and their key features. They will then delve into the layers of the Earth to explore how the movement of tectonic plates causes fault lines and areas of volcanic activity across the globe as well as mountain ranges and Earthquakes. They will learn about 'Pangea' and continental drift. Through the exploration of maps and satellite images, the children will learn about the Pacific Ring of Fire and 'danger zones' across the planet and explain why the UK is relatively safe. They will complete the topic by researching and debating the positive and negative effects of volcanic activity on the surrounding environment.

Curriculum Hook:

The year group will watch a glow in the dark volcanic eruption experiment (using a model volcano) in the hall and then an inspirational video about volcanoes to hook them into the topic.

Quality Text / Whole Class Reader:

Swimming against the Storm – Jess Butterworth
Various non-fiction texts.



Links to being a British and Global Citizen:

Respect for the Environment: As global citizens, this unit will show the children the need to respect the environment by looking at how people's lives are affected by volcanos and other natural phenomena.

Links to SMSC, RRR and HARMONY:

Collaboration –The children will work together to create performance poetry, animations and posters explaining plate tectonics.

Life Long Learning Skills:

The children will develop their problem solving skills through the Computing challenges.

Outcome/Impact:

Children will create a concept cartoon about the different positive and negative impacts of volcanic eruptions on the environment. They will have a class debate on the pros and cons of living near a volcano, before deciding whether they are positive or negative.

As readers, writers and performers, we will:

- Start the theme looking at the writing style of David Walliams. We will think carefully about how he engages his reader before using his techniques to write a description of volcanic eruption.
- Investigate performance poetry by looking at poems like 'The Boneyard Rap' and 'Walking with my Iguana' and we will think about how they create rhythm and flow. Using our knowledge of volcanos, we will then write and perform our own performance poetry.
- We will start to practise our non-fiction writing skills to write like a volcano 'expert'

As mathematicians, we will:

- Further our studies in multiplication and division (Up to 4 digits by 1 digit and 4 digits by 2 digits (long multiplication); long division (up to 4 digits by 2); division (with remainders).
- Study fractions, including: equivalent fractions; converting from mixed to improper (and vice-versa); sequence; compare; order; add; subtract; fractions of amounts; fractions as operators; and multiply unit fractions.

As geographers, we will:

- Learn about the structure of our planet in terms of plate tectonics and the layers of the Earth.
- Learn about earthquakes and volcanoes and how they are linked through plate tectonics.
- Learn about the sequence of a volcanic eruption and the positive and negative aspects of living nearby.
- Compare other natural disasters such as tornadoes and hurricanes and look at the creation of mountain ranges.
- Develop map and atlas work skills through research and enquiry.

As scientists we will:

Throughout this theme we will be taking on the role of physicists to explore and understand the way that force affects the world around us. We will do this by investigating the following areas,

- Identify gravity as a force and how this affects weight.
- Identify forces as pushes or pulls and be able to say if they are balanced or unbalanced.
- Understand that air resistance is a force (type of friction) which slows moving objects.
- Explore and identify the effects of water resistance.
- Identify friction as a force which may prevent objects from starting to move, and carry out a fair test with one variable, accurately observing and measuring the results.
- Identify mechanisms which have; levers, pulleys and gears, and how they allow a smaller force to have a greater effect.

Celebrating our community

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