#WEAREGEOGRAPHERS

UNIT OF LEARNING YEAR 3 SPRING VOLCANOES

Overview:
Volcanoes – how formed, different types, effect on settlements and landscape, where they are-famous ones- dormant, active, continental spread. Islands they may visit formed volcanically, simple biomes

National Curriculum Objectives:

- locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities
- physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle
- human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water
- use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
- use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.

Human and Physical Geography:

- To know that a volcano is a physical feature
- To know the process of a volcano erupting and to be able to use technical vocabulary to describe the earth's crust, the force of the lava and the impact on the surrounding area
- To know **why** a volcano would erupt

Place Knowledge:

- To know that volcanoes are visible to the eye and also under the sea

- To know Europe's only active volcanoes are located in Italy

Geographical Skills and Fieldwork:

- To know where volcanos are in the world and why they are predominantly in certain areas eg the Ring of Fire
- To know Europe's only active volcanoes are located in Italy

Revisiting:
Continents
Earth's layers
Human/ physical
Features of a volcano
Dormant v. Active

Disciplinary and Procedural Knowledge:

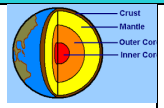
- To know that a volcano is a physical feature and be able to name some of the main volcanoes in the world that have erupted in the past and more recent history
- To know that volcanoes are visible to the eye and also under the sea.
- To know the process of a volcano erupting and to be able to use technical vocabulary to describe the earth's crust, the force of the lava and the impact on the surrounding area
- To know **why** a volcano would erupt
- To know why we have volcanos including the positives (fertile soil in the aftermath) and negatives of devastation and impact on life
- To know where volcanos are in the world and why they are predominantly in certain areas eg the Ring of Fire
- To know Europe's only active volcanoes are located in Italy: Etna, Vesuvius and Stromboli.

Skills to be lifelong geographers:

- **Direction/Location:** Use 8 compass points; Begin to use 4 figure coordinates to locate features on a map.
- **Map knowledge**: Identify significant places and environments
- **Style of map:** Use large scale OS maps. Use map sites on internet. Use junior atlases.

- Begin to identify features on aerial photographs and satellite photographs.

Fieldwork Opportunities:	**Website links/Texts:**
- On the school grounds - Use maps to investigate where volcanoes are situated - Sketch a simple map of the world to show where these are - Interpret data that demonstrates timings of volcanic eruptions around the world and strengths - Draw conclusions , using evidence, as to where will be the next volcano to erupt and why	https://www.nationalgeographic.com/environment/article/volcanoes https://education.nationalgeographic.org/resource/plate-tectonics-volcanic-activity/ https://education.nationalgeographic.org/resource/plate-tectonics-volcanic-activity/ https://www.oddizzi.com/teachers/explore-the-world/physical-features/volcanoes/what-is-a-volcano/ https://www.usgs.gov/programs/VHP/impacts-volcanic-events-can-last-months-years-after-eruption-ends https://volcano.si.edu/volcano.cfm?vn=241040#:~:text=The%20most%20recent%20eruption%20occurred,(BGVN%2045%3A02)
Key Knowledge – End Points: • To know that a volcano is a physical feature (HPG) • To know that volcanoes are visible to the eye and also under the sea (PK) • To know the process of a volcano erupting and to be able to use technical vocabulary to describe the earth's crust, the force of the lava and the impact on the surrounding area (HPG) • To know **why** a volcano would erupt • To know where volcanos are in the world and why they are predominantly in certain areas eg the Ring of Fire (GSF) • To know Europe's only active volcanoes are located in Italy (GSF) (PK)	**Unit Vocabulary** volcano ash lava eruption magma mantle dormant active vent crust core Tectonic plate

Lesson sequence					
To know that a volcano is a physical feature and be able to name some of the main volcanoes in the world that have erupted in the past and more recent history	**I know that the Earth is made up of layers and can label the Ring of Fire on a map of the world**	**I know where volcanoes are in the world**	**I know the features of a volcano**	**I know why a volcano erupts**	**I know the impact that a volcanic eruption can have on the environment and human activity within the area**
Suggested retrieval task					
2: How many continents are there? ○ There are eight continents. ○ There are six continents. ○ There are seven continents. **1: What is a continent?** ○ A group of islands ○ A large area of land ○ A part of a planet Label the continents on a map of the world	**1: An active volcano has had at least or eruption in the last 10,000 years.** ○ True ○ False	 Children to label Earth's layers	Is a volcano a human or physical feature? How do you know? (Summarise)	Match features of a volcano to definitions	**2: Volcanoes are formed... (choose two options)** ☐ when tectonic plates move around each other.. ☐ when tectonic plates collide and one plate is pushed beneath another. ☐ when tectonic plates remain still. ☐ when tectonic plates move away from one another.
Activity					

Explain to children that volcanoes are openings, or vents where lava, tephra (small rocks), and steam erupt onto the Earth's surface. Volcanic eruptions can last days, months, or even years. Children to look at a variety of volcanoes (above and under sea) What is similar? What is different? Explain to children that some volcanoes are dormant and some are active and get children to identify using research some of each.	Children to label the Earth's (layers) inner core, outer core and crust and mantle. Discuss tectonic plates and explain to children that the Earth's crust is made up of plates that float on the mantle. Show children a map of the world with the tectonic plates identified. Children to sketch a map of the world and locate the ring of fire. Do they notice any similarities with the placement of tectonic plates?	Look a range of aerial images of different volcanoes. Ensure children are aware which volcanoes are active and which are dormant. Explain to children that Europe's only active volcanoes are located in Italy: Etna, Vesuvius and Stromboli. Children to research where the volcanoes are situated in the world and plot on	Children to discuss the features of a volcano and using the word bank (vocabulary), label a volcano.	Explain to children that volcanoes occur Deep within the Earth it is so hot that some rocks slowly melt and become a thick flowing substance called magma. Since it is lighter than the solid rock around it, magma rises and collects in magma chambers. Eventually, some of the magma pushes through vents and fissures to the Earth's surface. Children to write an explanation using the labelled diagram from previous week.	Show children some images of the aftermath of a volcanic eruption. What can they see? (lava, ash fall etc) How do you think this has impacted the surrounding area? Children to research White Island in New Zealand and create an informative leaflet. It is a popular tourist destination where people travel by boat to the island to see an active volcano. Children to look at devastation caused and the impact on the human and physical geography of the area. Recent eruption- 9 th December 2019 21 fatalities Images can be shown and video footage on Netflix documentary/ Youtube

		their map from prior lesson.			
Assessment					
Can children explain to their partner what a volcano is and the difference between dormant and active volcanoes?	Where do you think the next volcanic eruption will occur? Why?	List 3 volcanoes and the countries that they are situated in.	Book look- can children accurately label the features of a volcano?	Book look- can children accurately explain why a volcano occurs?	List 3 impacts from a volcanic eruption.