



What makes the Earth Angry ? (including pollution)

Year 4 – Summer 1 Knowledge organiser

National Curriculum objectives: Pupils should be taught:

- To locate the world's countries, using maps to focus on Europe (incl. Russia) and N. and S. America, concentrating on their environmental regions, key physical and human characteristics
- To describe and understand key aspects of physical geography, including: mountains, coasts, volcanoes, earthquakes
- To describe key aspects of human geography, including the impact of volcanic activity, risk of earthquakes and resulting geographical impacts e.g. landslides, tsunami etc on settlements. Use geographical skills and field work.

Knowledge:

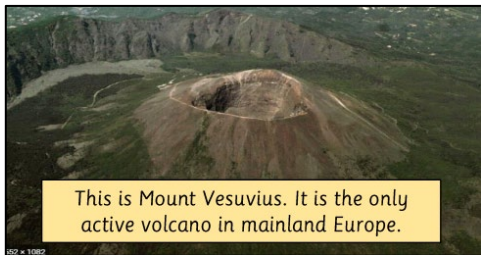
- Physical geography: identify climate zones, biomes and vegetation belts (fertile land around volcano), volcanoes and earthquakes
- Human geography: know types of settlement and land use (around volcano) including minerals – ties into physical geography.
- Locate the world's countries, using maps to focus on Europe (including Russia) – Mt Pompeii – and Pacific Ocean and surrounding countries – concentrating on their environmental regions, key physical and human characteristics, countries, and major cities.
- Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, (mention briefly the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones)
- Pupils should be describe and understand key aspects of: The physical geography of two earthquake and volcanic regions (Mount St, Helen's and Mount Etna/Mount Vesuvius – what are the causes and effects of earthquakes and volcanoes?)
- Consider the human geography relating to the impact of living in an earthquake and volcanic region. (Explore the ways people protect themselves from earthquakes and volcanoes)

Geographical skills and enquiry:

- Ask and respond to questions and offer own ideas.
- Use letter/number co-ordinates to locate features on a map confidently e.g. to locate volcanic areas
- Begin to use grid references using the latitude, longitude – e.g. of Pacific Ocean and surrounding countries.
- Locate places on large scale maps e.g. countries, volcanic areas etc
- Begin to identify significant places and environmental regions e.g. earthquake zones, ring of fire
- Begin to match boundaries e.g. find the same boundary of a country on different scale maps
- Use different styles of maps e.g. large and medium scale OS maps, junior atlases, internet, aerial maps

What should I already know?

- Some physical characteristics and key features in the wider world.
- Some key aspects of physical geography in the wider world e.g. mountains, volcanoes, earthquakes.
- Locations of continents, oceans and some of the world's countries on a map.



This is Mount Vesuvius. It is the only active volcano in mainland Europe.

Key vocabulary

Volcano: a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapour, and gas are or have been erupted from the earth's crust.
Crater - A steep-sided, usually circular depression formed by either explosion or collapse at a volcanic vent.
Active volcanoes: An active volcano is a volcano that has had at least one eruption during the past 10,000 years
Map: a picture of a particular area drawn or printed to scale
Dormant volcano - A volcano which is presently inactive but which may erupt again.
Vent - The opening at the earth's surface through which volcanic materials issue forth.
Volcanic eruption - When hot rocks and lava burst from a volcano.
Ocean: a very large body of saltwater
Explosion: volcanic eruption lava hot molten or semi-fluid rock erupted from a volcano
Ash: the powdery residue left after the burning of a substance
Magma: hot fluid or semi-fluid material below or within the earth's crust from which lava and other igneous rock is formed on cooling
Lava - Magma which has reached the surface through a volcanic eruption. Streams of liquid rock that flow from a crater or fissure.

Lava Flow - An outpouring of lava onto the land surface from a vent or fissure.
Mantle - The zone of the earth below the crust and above the core.
Ring of Fire - The regions of mountain-building earthquakes and volcanoes which surround the Pacific Ocean.
Mountain: a land mass with great height and steep sides that is higher than a hill.
Equator: the imaginary circle around the earth that is halfway between the North and South Poles.
Continent: one of the earth's seven major areas of land.
Fault - A crack or fracture in the earth's surface.
Earthquake: a sudden violent shaking of the ground, typically causing great destruction.
The Richter Scale: A measure of the strength of the waves or tremors of an earthquake
Tectonic plates: the earth is divided into a small number of plates which float on and travel independently over the mantle
Epicentre: the point on the earth's surface vertically above the focus of an earthquake.
Vibration: a movement back and forth
Seismic waves: an elastic wave in the earth produced by an earthquake or other means.

