|  |  |  |
| --- | --- | --- |
| **Alderley Edge Community Primary School** | | |
| **TOPIC: Volcanoes and Earthquakes** | **Strand: Knowledge (Human and Physical)** | **Year 4** |

|  |
| --- |
| **What should I already know?** |
| * The seven continents and five oceans of the world. * The location of some countries, including the UK and Kenya. * What climate means and how it effects the vegetation in an **area** * Greece is in Europe and some of the physical and human geography of Greece linked to place topic * When two **tectonic plates** of the earth's **crust** grind into each other the land can be pushed upwards, **forming** **mountains**. * Many of the greatest **mountain** ranges of the world have **formed** because of enormous collisions between the **tectonic** **plates.** * When many **mountains** are close together, this is called a **range.** * The highest point of a **mountain** is called the **peak** or the **summit**. |

|  |  |  |
| --- | --- | --- |
| **Features of Cheshire and Greece** | | |
|  | **Human features** | **Physical features** |
| Cheshire | Cheshire has many **villages (such as Alderley Edge**) and **towns** (such as Macclesfield). There are no official **cities** in Cheshire East but our nearest city is Manchester    Cheshire has many farms and is famous for the farming **trade**.  Cheshire has salt mines  Cheshire is famous for Cheshire Cheese  Historically Macclesfield was famous for silk | **River**  - River Bollin which is a tributary to the River Mersey into the Irish Sea    **Highest point** – Shining Tor on border between Cheshire and Derbyshire  The **landscape** is green as there are many fields.    The **climate** is mild. The summers are warm and the winters are cool.  Cheshire's natural hazards include floods |
| Greece | Greece has many **villages, towns** and **cities.** The capital **city** in Greece is Athens, which is a **port** **city**.  Greek ferries are the primary means of transport to and from the **islands**.    Many **tourists** visit Greece, especially Athens and the **islands**.    Greece’s main **exports** include petrol and food, such as olive oil and fish.    Greece has many ancient structures, including the Acropolis and the Delphi. | Greece is a **mountainous** country with a very long **coastline**, made up by a **mainland**, **peninsulas** and **islands**.    Greece's natural hazards include severe earthquakes, floods, droughts and wildfires. Current environmental issues include air pollution and water pollution.  Mount Etna, Europe’s largest volcano is in Greece |

|  |
| --- |
| **What will I know be the end of the topic?** |
| **Volcanoes** |
| * A **volcano** is a very deep hole in the Earth’s top **layer** that can let out hot **gasses**, ash and **lava**. Many **volcanoes** are also **mountains**. * **Volcanoes** have long **vents** that go all the way down through the Earth’s first **layer**, the **crust**, to **magma** in between the **crust** and the **mantle** (the Earth’s second **layer**). It’s so hot there that rocks **melt** into liquid. This is called **magma**, which travels up through **volcanoes** and flows out as **lava**. * There are three ways to describe a **volcano** and explain what it’s doing – **active, erupting**, and **dormant** * When a **volcano erupts**, **magma** comes up and out through the **vents**. **Magma** is called **lava** when it’s outside the **volcano.** * Some **volcanoes** are underwater. * There are no **volcanoes** in the UK. The largest **volcano** in Europe is Mount Etna in Greece |

|  |  |
| --- | --- |
| **Vocabulary** | |
| active | An active volcano has erupted recently or is expected to erupt quite soon |
| climate | the general weather conditions that are typical of a place |
| continent | a very large area of land that consists of many countries. Europe is a continent. |
| core | the central part of the earth, beneath the mantle |
| crust | The Earth's crust is its outer layer |
| dormant | not active but is capable of becoming active later on |
| earthquake | a shaking of the ground caused by movement of the Earth's crust |
| erupt | When a volcano erupts, it throws out a lot of hot, melted rock called lava, as well as ash and steam |
| fault lines | a long crack in the surface of the earth. Earthquakes usually occur along fault lines |
| form | move or arrange |
| gas | something that is neither liquid nor solid. A gas rapidly spreads out when it is warmed and contracts when it is cooled. |
| lava | the very hot liquid rock that comes out of a volcano |
| layers | If something has many layers, it has many different levels or parts |
| location | the place where something happens or is situated |
| magma | molten rock that is formed in very hot conditions inside the earth |
| mantle | the part of the earth between the crust and the core |
| melt | to change from a solid to a liquid state through heat or pressure |
| molten | Molten rock, metal, or glass has been heated to a very high temperature and has become a hot, thick liquid |
| mountain | a very high area of land with steep sides |
| peak | the highest point of a mountain, Also known as a summit. |
| pressure | force that you produce when you press hard on something |
| range (mountains) | A range of mountains or hills is a line of them |
| summit | the highest point of a mountain, Also known as a peak. |
| tectonic plate | Huge slabs of the Earth’s crust that fit together like a jigsaw puzzle |

|  |
| --- |
| **Earthquakes** |
| * The **tectonic plates** have edges and sometimes the edges, which are called **fault lines**, can get stuck, but the **plates** keep moving. * **Pressure** slowly starts to build up where the edges are stuck and, once the **pressure** gets strong enough, the **plates** will suddenly move causing an **earthquake**. |

|  |
| --- |
| **The Earth** |
| * The Earth has three layers – the **crust** at the very top, then the **mantle**, then the **core** at the very middle of the planet. * The Earth's crust is made up of huge slabs called **tectonic plates**, which fit together like a jigsaw puzzle. * These tectonic plates slowly move over a long period of time |



