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| **Key Theme** |
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Year 4 – Spring 1 – Volcanoes & Earthquakes

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| **Sticky Knowledge & Skills** |
| * Mount Vesuvius erupted in AD79. * Pompeii was buried underneath a blanket of ash, pumice-stone and lava and was not re-discovered again until 1748. * Approximately 2000 people in Pompeii lost their lives following the eruption. * There are around 1,500 active volcanoes around the world. * Tectonic plates move towards each other, away from each other and when this happens, it can cause both volcanic eruptions and earthquakes. * The Ring of Fire is a region which spans much of the Pacific Ocean where a great many volcanic eruptions and earthquakes happen every year. |

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| **Labelled diagram of a volcano** |
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| **Key Texts** |
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| **Key Vocabulary** | |
| active | An active volcano has erupted in the last 10,000 years. |
| dormant | A dormant volcano has not erupted in the last 10,000 years but could erupt in the future. |
| extinct | An extinct volcano will not erupt ever again. |
| volcanic eruption | A volcanic eruption is when lava and gas are released from a volcano. |
| core | The Earth’s core is the central layer which is made of iron and nickel. |
| mantle | The Earth’s mantle is the middle layer which is moving hot rock. |
| crust | The Earth’s crust is a thin outer layer of hard rock. |
| Ring of Fire | The Ring of Fire is a region in the Pacific Ocean which experiences lots of volcanic eruptions and earthquakes. |
| Mount Vesuvius | Mount Vesuvius is an active volcano situated in the Bay of Naples in Italy. |
| Richter scale | The Richter scale measures how powerful an earthquake is. |
| magnitude | How word used to describe how strong an earthquake is. |
| tremor | A small earthquake in which the Earth shakes slightly. |

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| **Core Value Focus** |
| Compassion  Emotional health  Respect |

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| Geography | | Science  (Changes of state) | | RE  What can we learn about religions about what is right and wrong? | |
| What are the three main layers of the Earth?  What are the three volcano states?  What is a volcanic eruption?  What is the difference between lava and magma?  Where is Mount Vesuvius located?  What does the Richter scale measure?  Describe the movement of tectonic plates… | The core, mantle and crust.  Active, dormant or extinct.  When lava and gas are released from a volcano with force.  Lava is flowing molten rock above ground and magma is the same but underground.  The Bay of Naples in Italy.  The strength of an earthquake on a scale of 1-9.  They can move towards each other, away from each or past each other. | What are the three states of matter?  At what temperature does water start to freeze and become ice?  Are all melting points the same?  What is evaporation?  Why is water special?  Describe the particles of a gas. | Solid, liquid and gas.  0 degrees Celsius.  No – it depends on the material you are trying to melt. Not all of them have the same properties.  This is a process which takes place when a liquid warms up and turns into a gas.  Because it can exist in all three states of matter.  They are spread out and move around quickly and freely. | What is a golden rule?  What are the ten commandments?  What rule could you create to make the world a ‘good’ world?  How do humanists decide what is right or wrong without God’s help?  Name two things that a humanist believes in. | A rule that is very important.  A set of rules that are followed in Judaism and Christianity.  *Various answers.*  They think carefully about their actions and the right way to live.   * There is no God * Science is the best method for understanding the world * We only have ‘one life’ so we need to make the most out of it * Have empathy for others and the world we live in. |