Journey to the Centre of the Earth

**Driving question**

**Is the Earth alive?**

This theme uses the mystique that has intrigued mankind throughout history about what goes on beneath the earth’s surface as its main theme. The theme focuses on a fascinating mix between scientific explanations, religious beliefs and key literary pieces with the centre of the Earth as a common link. The theme borrows its name from Jules Verne’s classic science fiction novel of the same name. The book introduces the students to the theme with a clear focus on inference as a literary skill when studying the text. Students will also explore the religious and scientific ideas of how the universe came into being. As the theme progresses students will discuss the impact of important scientific figures and discoveries on how, as humans, we understand our position in the universe.

As the theme progresses, the focus will move towards a social and environmental context and students will start to directly address how planet earth rules the way we live our lives.

**Knowledge**

In this theme students will learn about:

* what objects are found in the night sky.​
* about distances in space using appropriate units.​
* about the relationship between mass, weight and gravity.
* the different types of rocks on the earth, how they were formed and how they can be converted from one type to another.
* key events in Galileo's life​.
* the plates that cover the earth​.
* the theory of plate tectonics.
* how different boundaries account for different geographical features.​
* what the Earth’s atmosphere used to be like​.
* how the gases in the Earth’s atmosphere were produced.​
* how oxygen was produced.​
* the concepts of weather and climate.​
* examples of weather forecasting.
* the key vocabulary and exploring at key elements of a forecast.
* the physical process that shapes our Earth and triggers earthquake and volcanic activity.
* theories about life on earth being the only life we live. ​
* the concept of the afterlife as believed by different religions.​
* theories of what happens once our ‘journey’ of life ends in the form of a discursive text.

**Skills**

In this theme students will develop the following skills:

* how to use observation data about astronomical objects to make conclusions.
* how to identify the relationship between mass, weight and gravity.
* how to calculate and compare weight on different planets.
* how to describe how sedimentary, igneous and metamorphic rocks are formed. ​
* how to identify language techniques in a given text.
* how to use sources to describe Galileo.
* how to write a piece of discursive text.
* how to calculate weight using mass and acceleration of gravity.
* how to use animation tools in MS PowerPoint and video to demonstrate the relationship between mass, weight and gravity.
* how to write a persuasive argument.
* label the processes in the rock cycle.

**Useful links**

Evidence of the Big Bang Theory <https://www.bbc.co.uk/teach/class-clips-video/physics-ks3--gcse-evidence-of-the-big-bang/z6tn382>

The origins of the universe explained <https://www.nationalgeographic.com/science/space/universe/origins-of-the-universe/>

The Earths structure <https://www.bbc.co.uk/bitesize/guides/zyhv4wx/revision/1>

Religious creation stories <https://www.bbc.co.uk/teach/class-clips-video/religious-education-ks3-a-z-of-religion-and-beliefs-c-is-for-creation-stories/zvfp382>

Jules Verne <https://www.britannica.com/topic/A-Journey-to-the-Centre-of-the-Earth>

**Families: How can you help?**

Speak to your child about how the universe came to be. How was the universe created?

As a family watch the weather forecast and discuss what the weather will be like for the week ahead.