Journey to the Centre of the Earth

Recommended year group: Year 7

Subject focus: Drama, English, Science, Maths, Geography, History, RE

Driving Question
Is the Earth Alive?

Introduction

The intent of the theme is to use the mystique that has intrigued mankind throughout history about what goes on beneath the Earth's surface to spark students curiosity. 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.

Assessment outcomes

Lesson 2: Gravity, Weight and Mass. Animation demonstrating the relationship between mass, weight and gravity.
Lesson 3: Religious Creation Stories. PEEL paragraph - Compare and contrast the religious creation views.
Lesson 4: The Moving Earth. Creation and interpretation of graph.
Lesson 6: Big Read: Jules Verne. Annotated extract and written piece of analysis.
Lesson 8: The Dynamic Earth. Labelled diagrams and PEEL paragraph on the social, economic, and environmental impacts of earthquakes.
Lesson 12: Weather and Climate. Produce weather report and interpretation of climate graph.
Lesson 13: Big Write Pompeii. Descriptive perspective piece.

Key vocabulary

Adjectives, afterlife, alliteration, atmosphere, Big Bang, Christianity, climate, continental drift, creation, crust, earthquakes, forecast, force, Galileo, gravitational field strength, gravity, Hinduism, interpretation, Islam, light years, mantle, mass, metaphors, Newton, opinions, personification, persuade, plate boundaries, planets, Pompeii, religion, repetition, rhetorical questions, science, seismic waves, Sikhism, Solar system, source, space exploration, tectonic plates, theory, universe, volcanoes, weather, weight

Flipped learning opportunities

Lesson 1: Our Place in the Universe. Use the link to explore the night sky. Research and make notes about constellations, planets, galaxies and stars.https://stellarium-web.org/
Lesson 8: The Structure of the Earth. Earth's core label.
Lesson 14: Death – Is it the end? Research and explain what ancient civilizations believed about the afterlife.

Lessons

Lesson title	Subject	Essential knowledge/concepts	Competencies	National curriculum coverage
Lesson 1: Our Place in the Universe.	Science	Outline what a light year. Sketch a graph that compares distances in space to temperature. Explore different theories regarding the origin of the universe and use scientific language to summarise and model the Big Bang Theory.	SC.CS.01 - Using Scientific Ideas	Science: Understand that scientific methods and theories develop as earlier explanations are modified to take account of new evidence and ideas, together with the importance of publishing results and peer review.
Lesson 2: Gravity, Weight and Mass	Science and Maths	Identify the relationship between mass, weight and gravity. Calculate and compare weight on different planets. Apply knowledge to PowerPoint animations.	SC.MS.01: Using Equations and Solving Problems	Science Physics 'non-contact forces: gravity forces' and 'forces measured in newtons' and 'gravity force, weight = mass x gravitational field strength' Maths 'use standard units of mass, length, time, money and other measures, including with decimal quantities '
Lesson 3: Religious Creation Stories	Religious Studies	Discuss the creation of Planet Earth. Describe and explain religious creation stories. Compare religious creation stories.	SE.RE.01 - Make sense of religious beliefs	Religious Studies 'comparison of religious beliefs'

		Describe the events of the destruction of Pompeii. Apply knowledge to sources and interpretations.		
Lesson 15: Careers	Careers	Identify different careers in the Earth/Space Sciences fields. Research the necessary qualification, skills, and experience to successfully pursue a career in these fields. Explain the importance of these careers.	PD.CA.02: Experiencing the world of work	Gatsby benchmark 4: L