

CENTRE OF THE EARTH

45MINS-IHR

Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage.

Use simple compass directions (North, South, East and West) and locational and directional language [for example, near and far; left and right], to describe the location of features and routes on a map.

Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities.

Understand and apply the principles of a healthy and varied diet.

LEARNING OBJECTIVES

PowerPoint presentation for the lesson.
YouTube clip about the makeup of the Earth's layers:
https://www.youtube.com/watch?v=N1DIn_xwvdo

Selection of corn on the cob (you can use frozen corn here if fresh is not available)

A small packet of popping corn

A microwave

Non-metallic bowl with a lid



RESOURCES

Facts about the Earth's layers

Crust

The crust is the thin outer later of the Earth where we live. The crust varies from around 5km thick (in the ocean floor) to around 70km thick (on land where we live called the continental crust).

Mantle

The next layer of the Earth is called the mantle. The mantle is much thicker than the crust at almost 3000km deep. It's made up of slightly different silicate rocks.

Tectonic plates

The tectonic plates are a combination of the crust and the outer mantle. These plates move very slowly, around a couple of inches a year. Where the plates touch each other is called a fault. When the plates move and the boundaries bump up against each other it can cause an earthquake.

Outer Core

The Earth's outer core is very hot (4400 to 5000+ degrees C). This is so hot that the metals are liquid! The outer core is very important to earth as it creates something called a magnetic field.

LESSON OUTLINE

CONT...

Inner Core

The Earth's inner core is so deep within the earth that it's under immense pressure. So much pressure that, even though it is so hot, it is solid. The inner core is the hottest part of the Earth, and, at over 5000 degrees C, is about as hot as the surface of the sun.

Discuss with the children the key vocabulary that has been shared in the film such as: Crust, Mantle, Tectonic plates, Outer Core, Inner Core.

- 1. Ask the children to work in groups of 4-6.
- 2. Hand out the ears of sweetcorn. These can either be fresh or they can be the frozen ones that have been thawed out.
- 3. Ask the children how many kernels are there in each row? How could they calculate the approximate total of the kernels on the whole of the ear of corn?
- 4. Using the popping corn, make some popcorn, in the microwave, by putting the same number of kernels that were counted on a ear of corn.
- 5. Either as a group, or as a whole class activity, research how much popcorn costs at the cinema.
- 6. Ask the children to work out how much an ear of corn costs and how much an equivalent bowl of popcorn cots at the cinema. What is the cinema's profit margin?
- 7. This lesson, and the cooking process, can also be linked to the science theme of reversible and irreversible changes.

LESSON OUTLINE

- Using the word bank ideas collated from the PowerPoint accompanying this lesson, the children could create descriptive writing on Volcanoes expressing the sounds, smells, sight and reaction to the lava flow.
- Children could draw and colour in a cross section of the Earth.

