

# Dynamic Earth



## Activate Prior Knowledge

EY

- Recognise some environments are different from which they live drawing on their own experiences, simple maps (*Under the Sea, Dinosaurs, Transport*)
- Recognise similarities and differences between the natural world around them and contrasting environments (*Autumn, Winter, Minibeasts*)
- Explain some similarities and differences between life in this country and life in different countries drawing on their own experiences, simple maps (*All About Me, Under the Sea, On the Farm*)

KS1

- Locate and name the continents and Oceans on a World Map
- Compare life and our local area with other countries
- Identifying hot and cold areas of the world in relation to the Equator and the North and South Poles  
*Context: Chine, Africa (Kenya), Australia, North and South Poles*

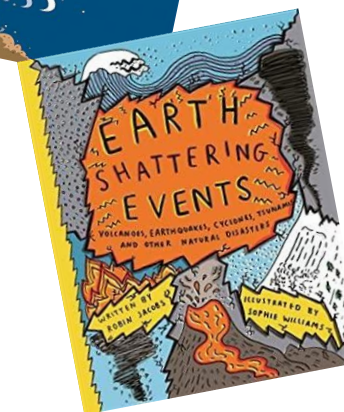
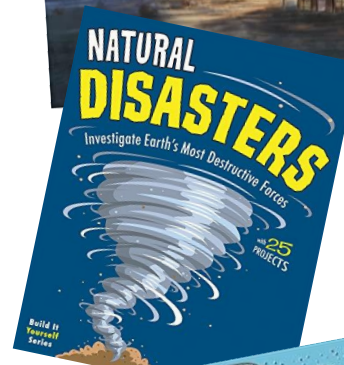
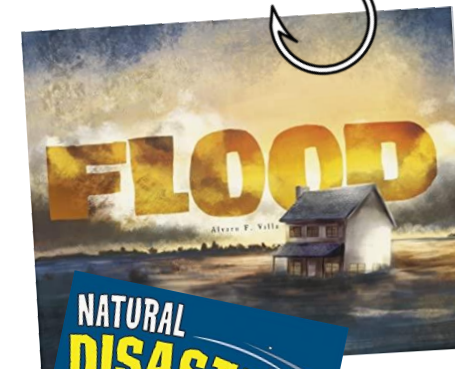
KS2

- Human and physical geography (UK, Africa (Egypt), Climate Change)
- Location of countries continents, oceans, equator, rivers, Tropics of Cancer and Capricorn, land use patterns (Egypt)

## Links to Future Learning

- France (locational knowledge, comparing)
- The Americas (linking to regions in America where disasters take place, comparing)
- Modern Day Greece (locational knowledge, comparing)

## Hook into a Book



### Knowledge

#### Locational

I can locate the countries where these natural disasters happen.

#### Place

I can understand geographical similarities and differences and why natural disasters occur in different places and their impact on humans.

#### Human and Physical Geography

I know the different layers of the Earth

I can tell you where these natural disasters happen

I can explain why natural disasters happen.

I can tell you how to keep safe in these natural disasters and how humans have adapted to live in these places.

#### Geography Skills

I can use maps, atlases, globes and digital/computer mapping to locate the countries where these disasters happen.

### Objectives

#### Locational

Locate the world's countries

#### Place

understand geographical similarities and differences through the study of physical geography and its impact on humans.

#### Human and Physical Geography

Children can describe and understand key aspects of:

- physical geography, including: volcanoes, tornadoes, tsunamis and earthquakes.
- human geography, impact on humans (housing, tourism, farming etc...)

#### Geography Skills

use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied

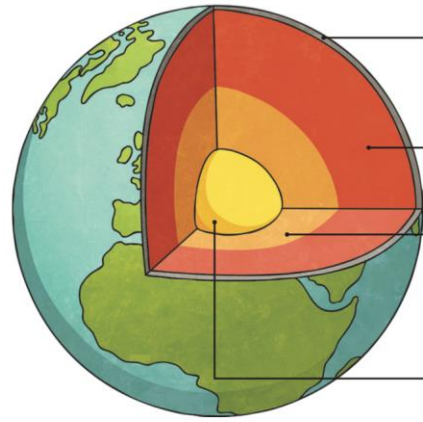
Key Vocabulary	
<b>cumulonimbus cloud</b>	Large thunderstorm clouds.
<b>erupt</b>	To suddenly burst out causing lava to explode out of the earth's surface.
<b>fossils</b>	The remains of plants or animals that lived a long time ago which can be found deep in the earth.
<b>magma</b>	Extremely hot, liquid rock.
<b>tectonic plates</b>	The earth's crust is made up of large areas called <b>tectonic plates</b> that join together.



How would you deal with a natural disaster?

Would you live near a volcano?

## Layers of the Earth



**Crust**  
Thin outer layer. Hard rock. 10km–90km thick.

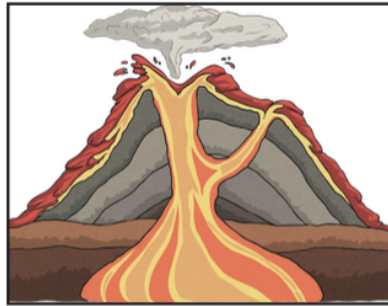
**Mantle**  
Extremely hot rock that flows. 3000km thick.

**Outer core**  
Iron and nickel. Mostly liquid with some rocky parts. 4000°C.

**Inner core**  
Iron and nickel. Hottest layer at over 5000°C.

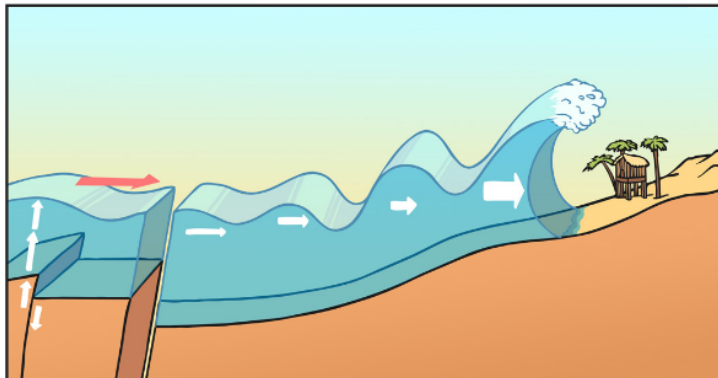
## Volcanoes

- Volcanoes are made when pressure builds up inside the earth. This affects the earth's crust causing **magma** to sometimes **erupt** through it.
- Active volcanoes have **erupted** in the last 10 000 years.
- Dormant volcanoes haven't **erupted** in the last 10 000 years but may erupt again.
- Extinct volcanoes aren't expected to **erupt** again.



## Tsunamis

- A tsunami is a giant wave caused by a huge earthquake under the ocean.
- The earthquake causes a large amount of water to be displaced very quickly causing a series of waves.
- As the waves travel through shallower water near land, they get bigger and bigger. The wave crashes onto the land causing devastation to buildings and sometimes even lives.



## Physical Geography

I can describe and share my ideas on the varied physical geography of Mexico.

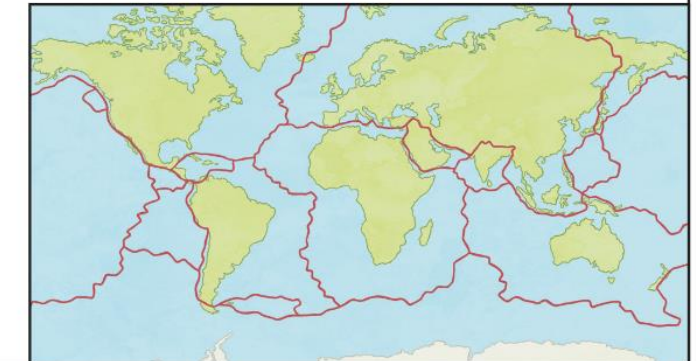
## Tornadoes

- A tornado is a swirling funnel of air that forms when warm air rises from near the ground into big **cumulonimbus clouds**.
- There can be thunder and lightning at the same time.
- You can see tornadoes due to the dust and water droplets caught in the clouds.
- Storm chasers are film-makers and scientists who head towards the storms. They film the tornadoes and collect data about them.
- Most tornadoes happen in Tornado Alley in America – more than 500 each year.
- Tornadoes can happen in the UK but only around 30 per year.



## Earthquakes

- Earthquakes are caused when the earth's **tectonic plates** suddenly move.
- Most earthquakes occur near the **tectonic plate** boundaries.
- Earthquakes can cause lots of damage to roads, buildings and property.



## Arguments For

- Volcanic soil produces good crops for farmers.
- Volcanoes are tourist attractions which brings money and jobs to the area.
- Minerals from volcanic rocks can be mined and used for building materials, which brings jobs to the area.

## Arguments Against

- Volcanic ash can cause health problems for people and animals.
- People's homes can be destroyed by lava flow.
- Volcanic ash can destroy a farmer's crops.