

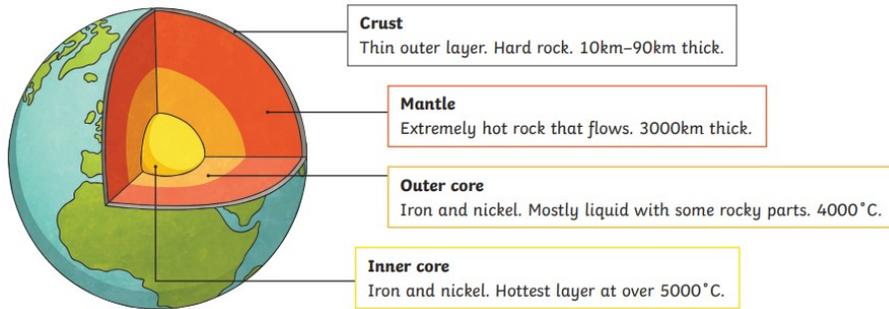
Extreme Earth Knowledge Organiser – Summer 2nd

Lower Key Stage 2 – Forest Academy

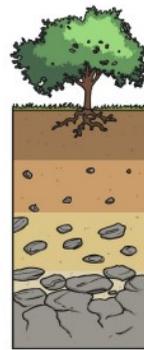
Key vocabulary

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

Layers of Earth



The Earth is made up of many rocky layers. The solid, outer layer is called the **crust**. Below the crust lies a layer of very hot, almost solid rock called the **mantle**. Beneath the mantle lies the core. The **outer core** is a liquid mix of iron and nickel, but the **inner core** is solid liquid. Sometimes, hot molten rock, called magma, bursts through Earth's surface in the form of a volcano.



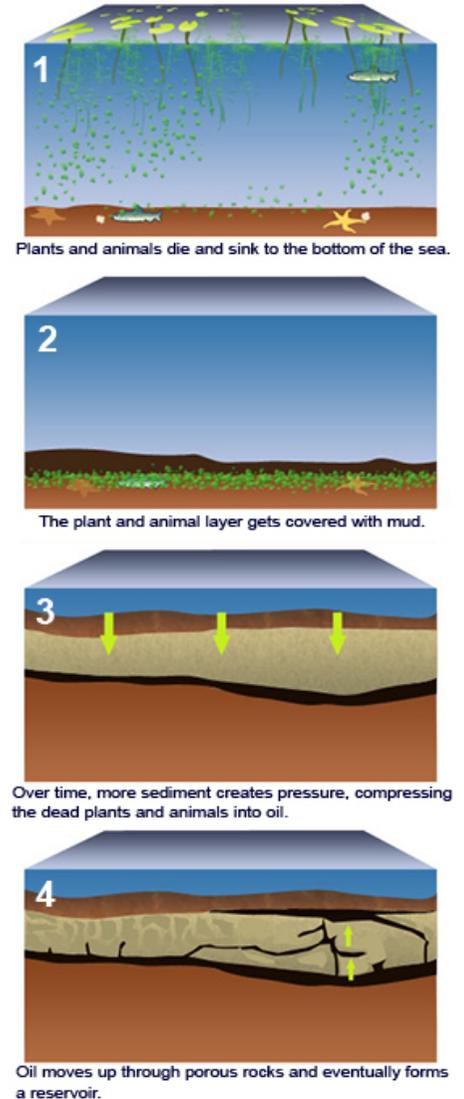
Layers of Soil	
humus	Rotting dead leaves and animals.
topsoil	Plant's roots grow here. Very few rocks.
subsoil	Rocks and stones. Full of nutrients. Tree roots may reach. Fossils .
bedrock	A mass of rocks. Fossils .

Fossils

When an animal or plant dies, it usually decays quickly. Dead animals are often eaten. Sometimes, though, an animal's body sinks into thick mud. The mud contains no air so the remains don't decay. Animals can't disturb the remains.

Here the remains may rest for thousands or even millions of years. Over time, more mud presses down on the remains. Minerals dissolved in the mud turn the remains to stone. These remains are called fossils and they give scientists clues about what life was like on our planet.

How are fossils formed?



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.



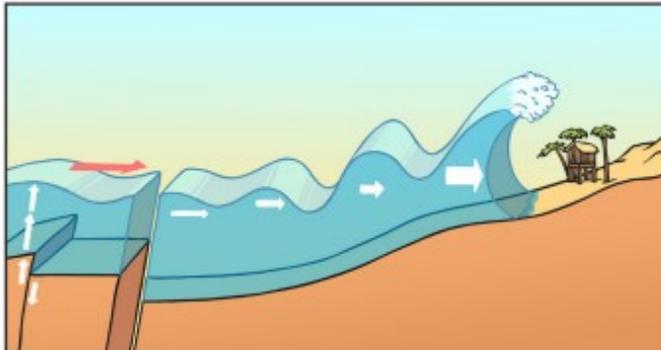
Tornadoes

- 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.



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.



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.

