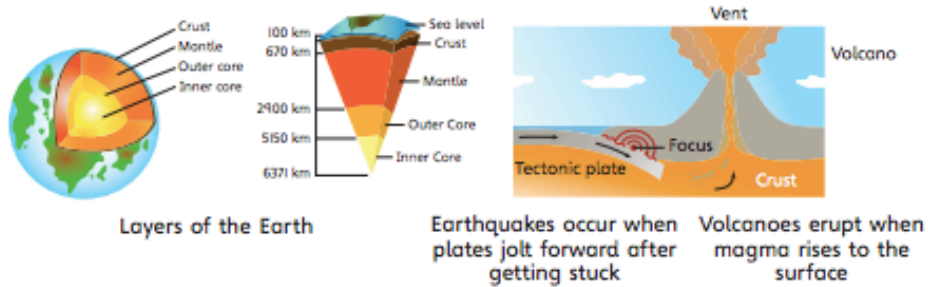


Mountains, Volcanoes and Earthquakes



A shield volcano



A stratovolcano

Structure of the Earth	
Crust	Solid rock, 0–70 km thick; continental (granite) and oceanic (basalt); made up of tectonic plates
Mantle	Solid rock, approx. 2,900 km thick
Outer core	Liquid metal: iron and nickel; approx. 4,500 °C
Inner core	Solid metal: iron and nickel; approx. 6,000 °C

Rocks and metals	
Granite	A type of rock formed by cooled magma; granite is the most common rock on the continental crust
Basalt	A type of rock formed by cooled magma; basalt is the most common rock on the oceanic crust
Iron	A type of metal; iron is the most common metal on Earth
Nickel	A type of metal

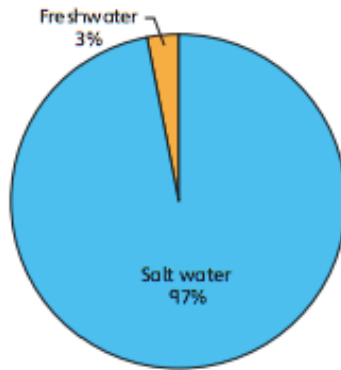
Vocabulary	
Epicentre	The point on the Earth's surface directly above the focus. An earthquake is felt most strongly at the epicentre.
Focus	The point deep underground where an earthquake starts
Fold mountain	A mountain created when tectonic plates collide and cause the plates to wrinkle upwards
Friction	A force between two things that are trying to move past each other
Lava	Magma that has reached the Earth's surface
Magma	Molten (melted) rock beneath the Earth's surface
Moment magnitude scale	A scale from 1–10 to measure the strength of earthquakes
Pressure	A physical force created when solid things push against each other, or when gasses build up inside something and push against the sides
Seismic waves	Waves of energy created by an earthquake that travel through the Earth
Tectonic plates	Large sections, or plates, that make up the surface of the Earth

Volcanoes	
Shield volcano	Largest volcanoes on Earth; wide base, low height Example: Kilauea (Hawaii) and Erta Ale (Ethiopia)
Stratovolcano	Most of the world's volcanoes are stratovolcanoes; high with steep sides Example: Mount Vesuvius (Italy) and Barðarbunga (Iceland)
Active volcano	A volcano that has erupted at least once in the last 10,000 years and still shows some signs of activity, such as movement of the plate beneath it, or gasses being released into the air
Dormant volcano	A volcano that has erupted in the last 10,000 years but is not showing signs of activity; however, it is expected to erupt again at some point
Extinct volcano	A volcano that has not erupted in the last 10,000 years and shows no signs of activity

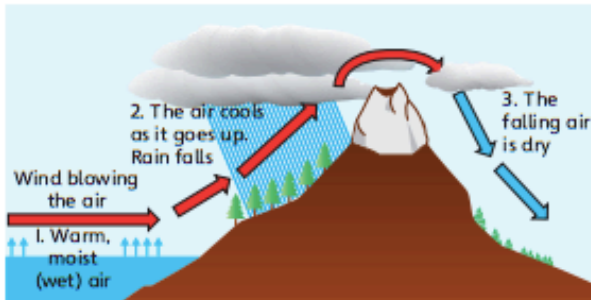
Water and Weather

Earth's water

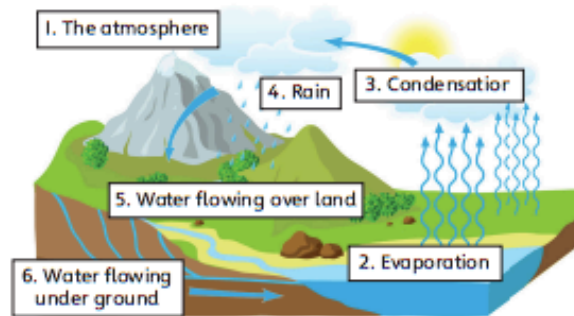
This pie chart shows the percentage of salt water and freshwater on Earth.



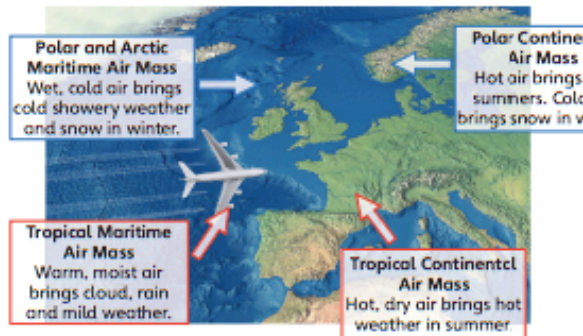
Why does it rain?



The water cycle



Why is the weather in the UK unpredictable?



Vocabulary

air masses	Huge areas of air that have the same temperature and the same amount of water vapour
condensation	When a gas turns into a liquid
evaporation	When a liquid turns into a gas
forecast	A prediction about what will happen in the future, based on evidence
gravity	An invisible force that pulls things towards the centre of the Earth
hemisphere	Half of the Earth: the top half is the northern hemisphere, the bottom half the southern hemisphere
rain shadow	The side of a mountain that does not get much rain
solar system	The Sun and everything that travels round it
water cycle	How water moves around the Earth, evaporating and condensing
water vapour	Water that is in the form of a gas

Villages, towns and cities

Vocabulary	
City	A large settlement that usually has more than 100,000 people
Employment	A job – that pays money in return for work
Land use	The purpose or use of an area of land
Leisure	Activities that people do in their spare time when they are not working
Megacity	A city with at least 10 million people
Population	The number of people in a particular place
Population density	The number of people per square kilometre
Settlement	A place where humans live
Town	A medium-sized settlement that can have between 1,000 and 100,000 people
Village	A small settlement that can have between 100 and approximately 3,000 people



Village – Trška Gora, Slovenia



Town – Ashford, UK



City – New York, USA



Megacity – Tokyo, Japan

How many people live on Earth?

- Approximately 7.7 billion
- In 1800 there were approximately 0.8 billion people on Earth

The differences between villages, towns and cities

Village	<ul style="list-style-type: none"> • In the countryside • Some services such as a post office, a small shop and sometimes a small place of worship • There may be a doctors' practice and a primary school • Many people are leaving villages to move to towns and cities
Town	<ul style="list-style-type: none"> • Services such as primary and secondary schools, a train station, hospitals and shopping centres • Large supermarkets and at least one place of worship
City	<ul style="list-style-type: none"> • Many different types of services, including universities, sports stadiums and a large variety of shops • Many restaurants, transport links and different places of worship • Many people move to cities because there are more opportunities for employment and leisure

What opportunities do villages, towns and cities offer?

Employment – the jobs that people do. There might only be a few opportunities for employment in a village but there will be a lot of jobs in a city.

Leisure – this is what we do in our spare time and can include activities such as walking in the countryside or visiting a museum in a city.

Shopping – villages might have only one shop. However, a city could have thousands of shops selling a wide variety of things.

Transport – villages are often connected by country lanes, with very little traffic. However, towns and cities can have busy roads and many different types of public transport.

Land use in cities

Residential	Housing of all types
Commercial	Businesses, offices and shops
Industrial	Factories, warehouses (large buildings for storage), rubbish and recycling facilities
Transportation	Roads, bus lanes, railway lines, cycle paths
Green areas	Big parks and open spaces