Amazing Planet knowledge organiser

Our Amazing Planet!

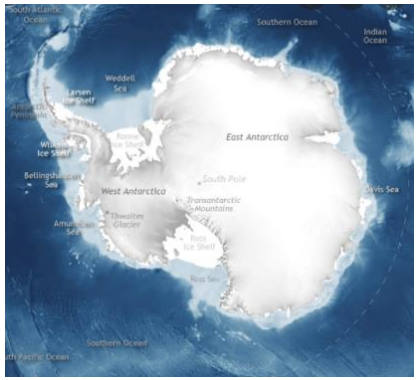
The hottest, coldest, highest and lowest places on our planet, are all home to unique plant and animal life and pose their own opportunities and challenges.

Antarctica: Antarctica is located in the lowest latitudes in the Southern Hemisphere. Consequently, it has a very cold and dry climate. This creates plants and animals with unique adaptations in order to survive in the bitterly cold temperatures. It also creates unique opportunities for science and tourism, for example using ice cores to find out how global temperatures have changed.

Oceans: The most diverse ecosystem on our planet! The deepest part is called the Mariana Trench, which is an area of the world scientists are just beginning to explore. Coral Reefs are home to an extraordinary array of plant and animal life, but are also at significant threat from human activity and the changing climate.

Deserts: The hottest and driest places on our planet. Did you know Antarctica is a cold desert? Life in the desert is not easy, however some people call this climate home. Animals and plants have also adapted to be able to survive in the most extreme temperatures.

Mountains: The tallest places on our planet! People have had to adapt to survive in these inhospitable places. You can locate them using the key skill of longitude and latitude.



Key words and definitions

Ecosystems: A family of plants and animals

Biome: Global-scale ecosystems

Longitude: Imaginary long lines down our world

Latitude: Imaginary flat lines across our world

Equator: The imaginary flat line in the middle of our world

Tropics: Above and below the equator where rainforests are found

Weather: Every day conditions outside, like temperature and rain

Climate: Long-term state of the weather

Altitude: How high up you are

Adaption: Changes in the body to fit the location

Coral reef: A colony of tiny animals called polyps

Mountain: Very tall hill

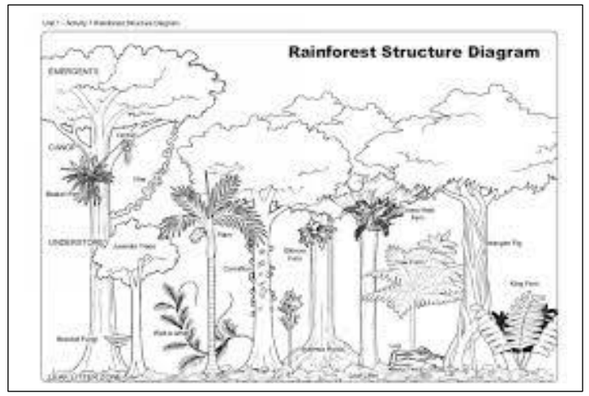
Desert: Hot and dry places

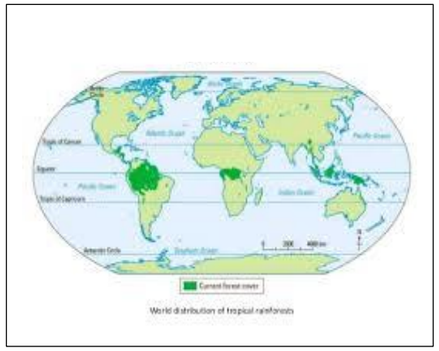
Ocean: Large bodies of water

Y7 Tropical rainforests

Summary of all the topics

- Tropical rainforests
- Equatorial climate
- The location of rainforests
- What are rainforests important?
- How are tropical rainforests used?
- Why do tropical rainforests need protecting?





Key geographical concepts

- Rainforests area type of ecosystem which is a community of plants and animals
- Rainforests tend to be located around the equator. This is because the sun is high overhead meaning the temperatures in the rainforests are high.
- Tropical rainforests are important because they are vast areas which contain many trees. Trees absorb carbon dioxide and release oxygen.
- Tropical rainforests contain half the world's species of plants and animals. Some plants may become extinct before they are discovered.
- Tropical rainforests are the most endangered ecosystem on earth. Every two seconds an area of rainforest the size of a football pitch is being destroyed.

Picture summary

Drip tip ***Humid rainforest***

Key words and definitions:

Ecosystem = a community of plants and animals.

Equatorial = an area located around the equator.

Rainforest= sometimes referred to as a jungle.

Climate = describes the temperature and weather conditions.

Buttress root = The large roots at the base of a very tall tree.

Shrub layer= the vegetation growing close to the forest floor.

Under canopy = the layer of plants that is just above the forest floor.

Canopy layer = the layer of vegetation that consists mainly of trees above the under canopy

Emergent = the tallest trees that extend out of the canopy layer in order to reach the sunlight.

Adaptations = the ways in which plants and animals change

Deforestation = the cutting down and removal of trees.

Atmosphere = the gases, including oxygen which exist around us.

Climate change = the natural and often enhanced warming of the atmosphere

Y7 Explosive Earth!

Summary of the topics

- What are the different layers of the earth?
- What are volcanoes?
- How are volcanoes formed?
- Why do people live near volcanoes?
- What is an earthquake?
- What is the effect of an earthquake?
- How can volcanoes and earthquakes be managed?
- What is a super volcano?

Natural hazard = an event which is not caused by humans, e.g. volcanic eruption

Key concepts

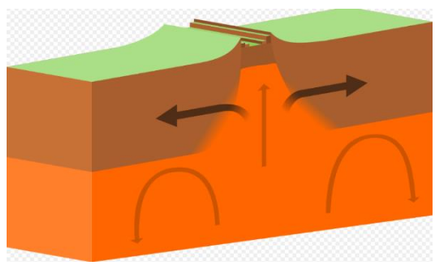
Natural hazard

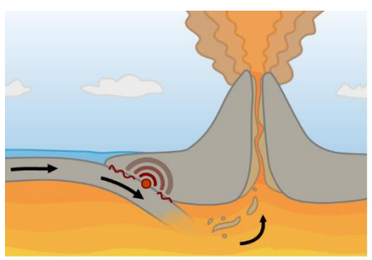
cause and effect

Mitigation

Summary of key learning

- The Earth is split into plates, called tectonic plates
- At the boundary between these plates, earthquakes and volcanoes can happen
- The plates moving apart are called constructive boundaries. The plates moving together are called destructive plate boundaries.
- These events can be dangerous – and have major effects on people, the economy and the environment
- Many people still live near or close to volcanoes, because the soil is very fertile, there is lots of tourism and they don't erupt very often
- We can make sure people are warned before an eruption and can evacuate safely (mitigate), so the effect of the eruption will be less
- Earthquakes can destroy homes and be very dangerous
- Super volcanoes are the largest type on earth, and if they erupt the damage can be global.

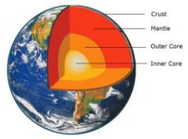




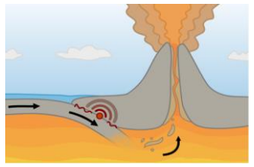
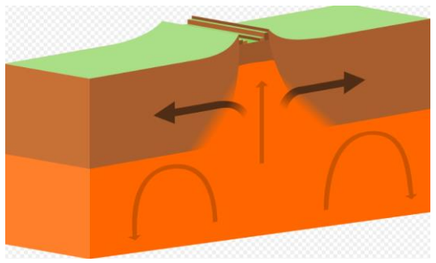
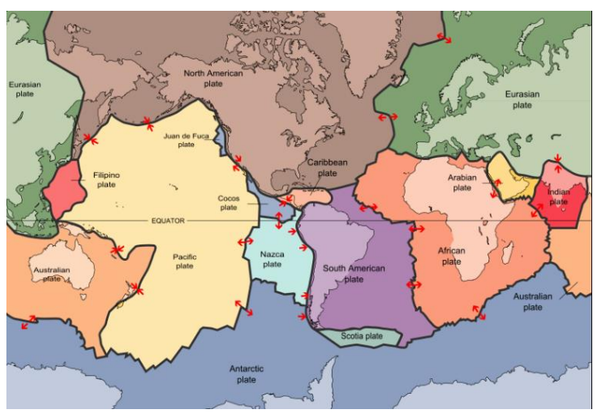
Key words

Plate boundaries

Crust, mantle, inner core, outer core



Destructive plate boundary



Constructive plate boundary