

Lesson ideas for geography teachers to share: What the Earth can tell us

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David Attenborough is going to teach you three short lessons on; the Indian monsoon, how the ocean affects weather patterns and latitude and longitude! Use the following questions to guide you on what to look out for in the videos.

Oceans: weather patterns

Ever wondered what an 'Indian summer' means?

1. What heats faster; land or water?
Land heats faster than water.
2. Warmer air is less dense, what happens because of this?
Warm air rises and as it does a vacuum is created sucking in cool air from the ocean, bringing huge rain clouds.
3. During the monsoon how much rain can fall in a single day?
1 metre. Big raindrops can fall as fast as 20 miles per hour.
4. What happens during winter months?
The winds reverse, blowing cool air back across India towards the ocean. Leading to very dry conditions.

Oceans: currents and weather

How do ocean currents affect the weather?

1. How many ocean basins are there in the world and what are their names?
There are 5; Atlantic, Pacific, Indian, Arctic, Southern.
2. How does the ocean determine the weather?
The ocean absorbs heat from the sun during the day, it is then distributed by ocean currents – like a conveyor belt. Currents move cold water towards the equator and warm water towards the poles.
3. How do aquatic mammals, like dolphins, breath?
They surface to take a breath because they do not have gills.
4. Many species of marine life are ancient. How old are Horseshoe crabs?
They are half a billion years old, eons before the dinosaurs.

The world: latitude and longitude

How can the 5 major lines of latitude offer you clues about the climate?

1. Why is it so useful to know about latitude – what does latitude tell you?



It can give you an exact location (with longitude) and can tell you about climate – plus the plants and animals living there.

2. Where are the tropics?
They run at an equal distance from the equator, running parallel to it at 23° N and S.
 3. What do you find within the tropics?
Hot deserts like the Sahara in the N or the Australian Outback in the S. The further away you go from the tropics the colder it gets.
 4. What happens within the Arctic and Antarctic circles?
It is so cold the ground freezes.
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