

# THE GALAPAGOS ISLANDS



The Galapagos Islands are found 1000 kilometres (600 miles) off the west coast of Ecuador, South America.

The Archipelago is made up of 14 large islands, 7 smaller islands and over 100 rocks and islets. The very first island is thought to have formed between 5 and 10 million years ago, as a result of tectonic activity. The youngest islands, Isabela and Fernandina, are still being formed, the most recent volcanic eruption was in 2009.

**Volcanic eruptions began to break through the ocean floor... these eruptions built underwater mountains... the mountains continued to grow with each new eruption... until some mountain tops emerged from the sea and... the Galapagos Islands formed!**

## CLIMATE

The climate of the Galapagos Islands is unique. Island size, shape and elevation interact with wind and ocean currents to shape the climate. When the cold Humboldt Current dominates in July, it brings cool air that rises up tall volcanoes forming dense wet cloud (*garua*). On low lying islands, clouds do not form and these islands remain relatively dry and hot. During the wet season, the dominant ocean current, the Cromwell Current, comes from the west and generates hot wet air, which promotes heavy rainfall but also long periods of cloud free skies.

The following information gives an idea of rainfall and sunshine levels in the Galapagos Islands over a year.

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Rainfall (mm)	44	56	81	72	69	50	27	9	10	11	10	40
Sunshine (hrs)	190	220	230	225	165	120	85	90	100	110	130	140

**ACTIVITY IDEA: CAN YOU?** Plot the rainfall and sunshine hours on a graph and discuss any trends you may notice. Compare the rainfall and sunshine in the Galapagos Islands with your country.



The Galapagos Islands contain many endemic animals and plants (meaning they are only found in Galapagos). One of the most famous visitors to the Islands was the British naturalist Charles Darwin and the observations he made during his 5 week visit in 1835 were very important for the future of science.

Upon returning to England, Charles Darwin worked on his theory of 'natural selection' but the full account of his theory, *On the Origin of Species*, was not published until 1859.

In 1959, the Galapagos National Park was established to help try and protect the unique wildlife and environment of Galapagos. The Park covers 97% of the area of the Islands. In 1964, the Charles Darwin Research Station was built on Santa Cruz island and scientists now come from all over the world to study the plants and animals, and help to conserve them. In 1978, the Galapagos Islands were the first natural area to be designated a World Heritage Site by UNESCO (the United Nations Educational, Scientific and Cultural Organisation).

In 1998, the ocean around the Galapagos Islands was made a Marine Reserve, to protect the remarkable marine life, such as the hammerhead shark and the Galapagos penguin (the only penguin to live near the equator!).

Today Galapagos is recognised as being one of the most pristine island ecosystems on Earth and remains the focus of much scientific interest.

## CAN YOU?





Find out and list other areas around the world that are World Heritage Sites, and write down why they are special.

## GALAPAGOS

**FACT:** The Galapagos Islands belong to Ecuador, and the official language is Spanish.

## THREATS TO THE WILDLIFE

There are many threats to the plants and animals of the Galapagos Islands:

-  Illegal or excessive fishing
-  Introduced plants and animals (species that are not native to Galapagos) such as goats and pigs that compete for food with native species such as the giant tortoise
-  The growing human population on the islands (around 30,000) and the increasing numbers of tourists (170,000 people per year visited the islands in 2013)
-  Pollution and littering

GALAPAGOS GIANT TORTOISES ARE THE LARGEST LIVING TERRESTRIAL TORTOISE SPECIES IN THE WORLD.

**GALAPAGOS** IS THE OLD SPANISH NAME FOR TORTOISE.

AT THE **CHARLES DARWIN RESEARCH STATION & GALAPAGOS NATIONAL PARK** A BREEDING CENTRE RAISES BABY IGUANAS AND TORTOISES JUST HATCHED FROM THEIR EGGS, UNTIL THEY ARE OLD ENOUGH TO SURVIVE IN THE WILD.

SO FAR, **MORE THAN 2000 LITTLE TORTOISES** HAVE BEEN RETURNED TO THEIR HOME ISLANDS FROM THE BREEDING CENTRE.



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