

LO: To understand how animals and plants adapted to suit their environment and how this may lead to evolution.

Starter

What have we learnt about evolution so far?

Now try this quiz

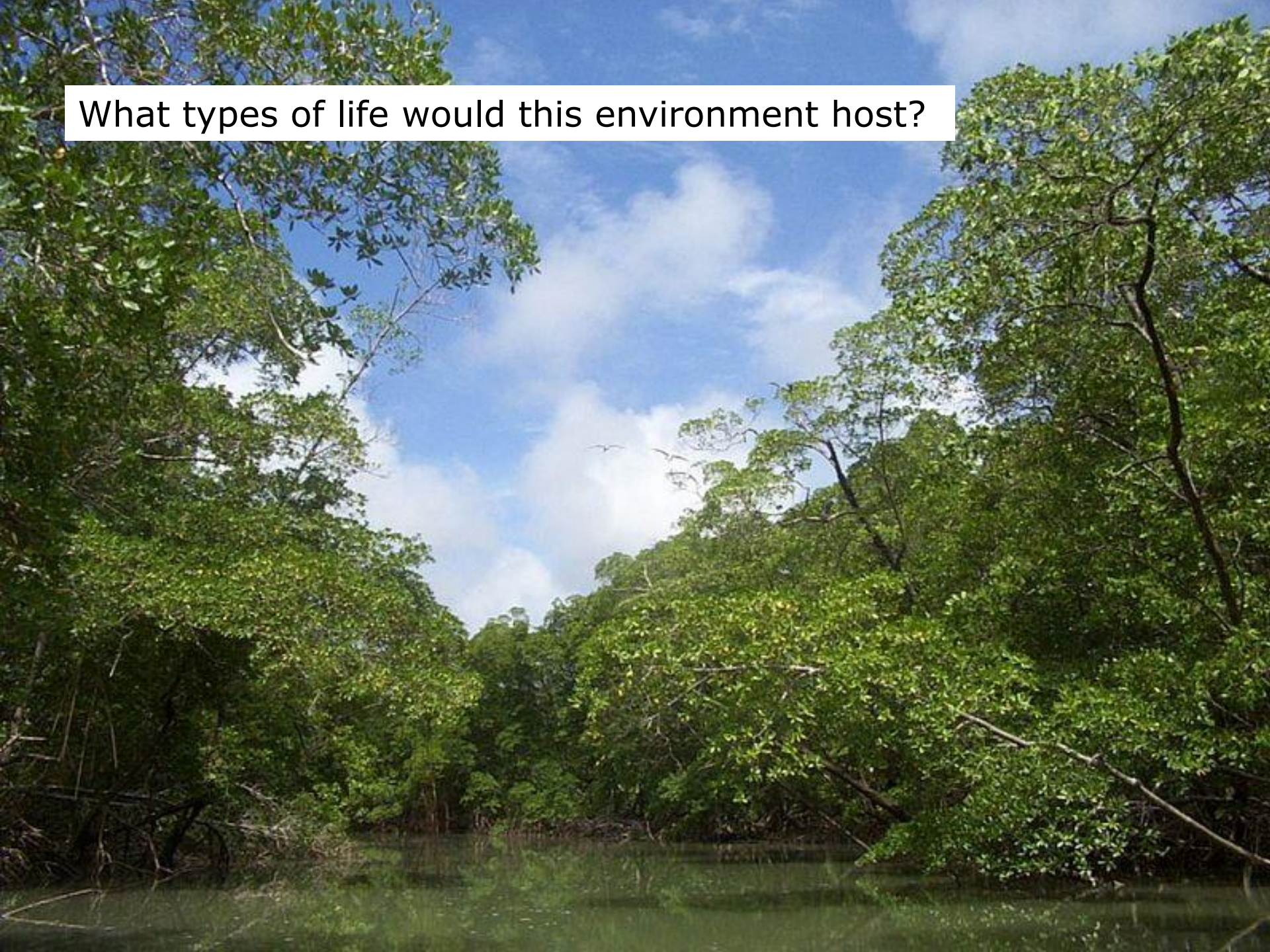
<https://www.softschools.com/quizzes/biology/evolution/quiz1921.html>



What types of life would this environment host?



What types of life would this environment host?



What types of life would this environment host?



What types of life would this environment host?



Recap

Charles Darwin
1809-1882



Photo: BRI INC.



Photo: Family D'Abie

Darwin studied the finches on the different Galapagos Islands and found that they had changed over time.

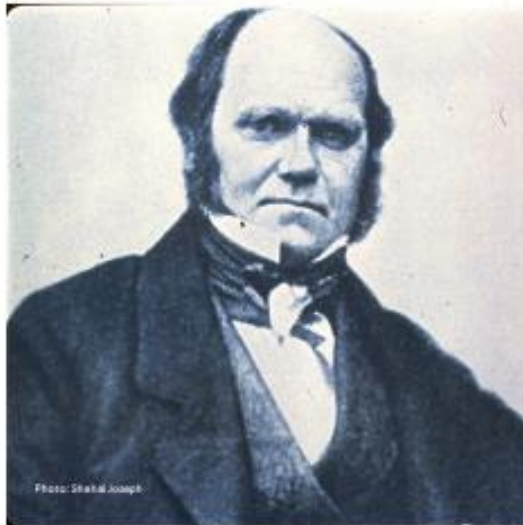
Study of Finches, Galapagos Islands



Photo: Yareli

The finches' beaks had adapted to the best shape for picking up the food that was most available to them.

Darwin's Theory of Natural Selection



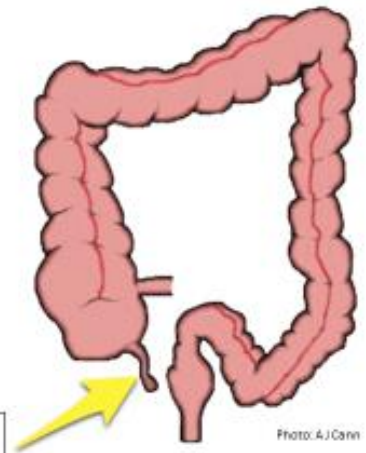
Darwin changed the way humans viewed themselves and the world around them

His theory states that **evolution** happens by **natural selection**

Why Do We Have An Appendix?

We no longer need an appendix for digestion

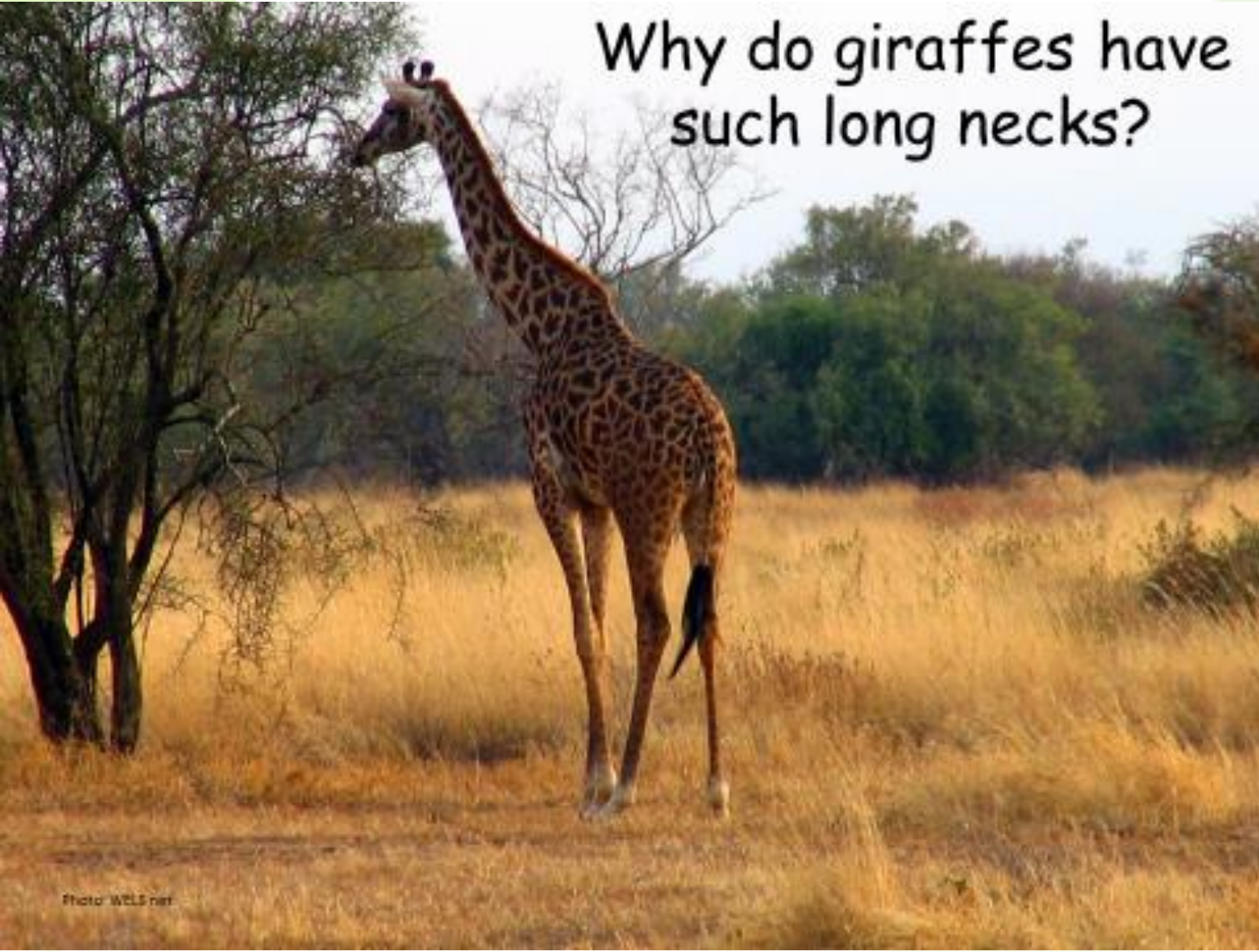
Biologists believe it is left behind from a plant-eating ancestor. So the appendix is evidence that we have **evolved**



A small pouch attached to the large intestine where it joins the small intestine

Living things develop **adaptations** to survive.

Life is always very well adapted to its environment.

A photograph of a giraffe in a savanna environment. The giraffe is standing in the center-left of the frame, facing left, and reaching its long neck up to eat leaves from a tree. The background consists of dry, yellowish grass and several trees under a clear sky.

Why do giraffes have
such long necks?

Discuss
first
before
going
on to
the
next
page.

Answers to previous slide.

Giraffe Adaptations

Tough lips to help protect against spiny thorns in acacia trees

Long necks used to reach leaves in tall acacia trees

Camouflaged coat with patches of different sizes and colours help giraffes hide in the African savanna

Fringed tail keeps flies and other pests away

A tough hoof protects each foot

Long tongue helps strip leaves off trees and manoeuvre around acacia thorns

Strong shoulders and muscles to help with long neck

Complex heart and cardiovascular system so that blood doesn't rush to brain as they bend to drink

Front legs longer than hind legs making it easier to reach tall leaves

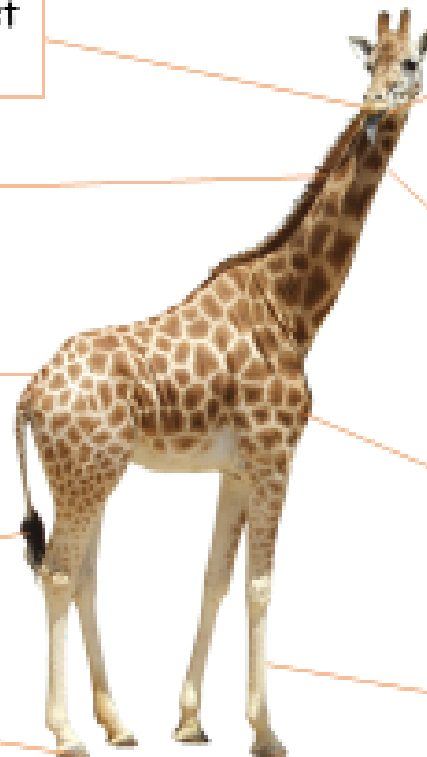


Photo: Piree

Giraffes manage for long periods of time without water. This keeps them safer as they have to assume an awkward position to drink, making them vulnerable to predators.

LO: To understand how animals and plants adapted to suit their environment and how this may lead to evolution.

TASK - Create a poster for each animal using the previous example to help you lay yours out. Conduct research on laptops.



In what ways are polar bears adapted to their environment?

Could they survive in any other habitats?



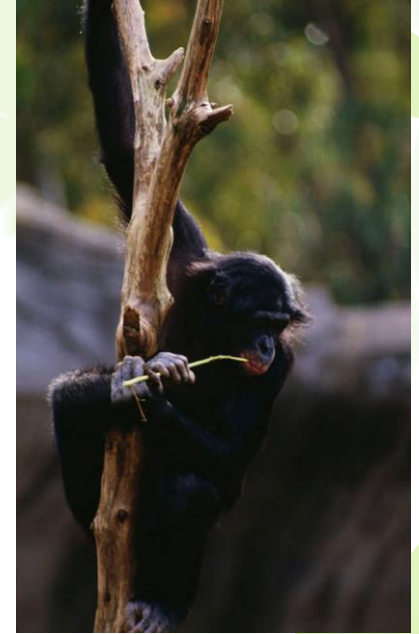
In what ways are cacti adapted to their environment?

Could they survive in any other habitats?



In what ways are owls adapted to their environment?

Could they survive in any other habitats?



In what ways are chimpanzees adapted to their environment?

Could they survive in any other habitats?

**Include a description of each organism's habitat.
Explain what might happen to each organism over time if its environment changed.**

Task 2

Invent your own animal or plant.

Draw a labelled diagram of the animal or plant they have invented to suit an environment (you can research one on the internet or make up your own!)

Include as much detail as possible about your animal's characteristics and why the animal has those characteristics.

Include as much detail in your drawings as possible, including describing the characteristics of the animal and why the animal has developed those characteristics to help it survive.

Explain

- What you think might happen to a population of these animals if the environment changed rapidly, for example, the land suddenly became flooded permanently?
- What do you think might happen to a population of these animals if the environment changed gradually over a very long period of time, for example, if the area became a desert due to years of very low rainfall?

What have you learnt about animals and their habitats?

- What can you say about animals in a certain environment?
- Can any animal survive in any environment?

