

Learning Outcomes:

Nature of Science	Students should be able to organise and communicate their research and investigative findings in a variety of ways fit for purpose and audience, using relevant scientific terminology and representations
Biological World	Students should be able to outline evolution by natural selection and how it explains the diversity of living things

Charles Darwin

How many species of birds can you name?

There are about 10,000 species of birds on Earth today. Each species has wings, feathers, and beaks. Scientists hypothesise that all birds evolved from an earlier, or ancestral, group of birdlike organisms. As this group evolved into different species, birds developed different sizes, colors, songs, and ways of eating. Yet, they kept their key bird traits.

How do species evolve?

Charles Darwin, a scientist, worked to answer this question. Darwin developed a theory of how evolution works. He studied plants and animals by observing them. Darwin spent years studying plants and animals in nature before developing his theory.

A theory is an explanation of the natural world that is well supported by evidence.

Voyage of the Beagle

During his trip around the world, Darwin observed and collected many plants and animals. Darwin's Theory Darwin discovered a relationship between each species and the food found on the island where it lived. Tortoises with long necks lived on islands that had tall cacti. Their long necks made it possible for them to reach high to eat the cacti. The tortoises with short necks lived on islands that had plenty of short grass.

Variations

Darwin knew that individual members of a species have slight differences, or variations. A variation is a slight difference in the appearance of individual members of a species. Variations arise naturally in populations. They occur in the offspring as a result of sexual reproduction.

Research and organise information about Charles Darwin in the table below.

	Charles Darwin
Who?	
What?	
When?	
Where?	
Why?	
How?	

Model variation. Draw several members of a species, and then explain how your drawing illustrates variation. Share your work with a partner.

Draw your partners model here:

