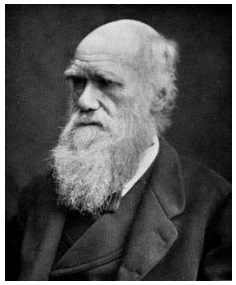
# Science – Evolution and Inheritance – Year 6 – Spring 2

## Vocabulary Top Ten:

| | |
|---|---|
| adaptation | how living things are specialised to suit their environment |
| evolution | the way that living things change over time |
| fossil | the preserved remains or traces of a dead organism |
| inheritance | the process of passing on features from parents to offspring |
| mutation | a change in the form of a living creature because of a change in its genes |
| natural selection | the scientific theory that organisms which better adapt to their environment, tend to survive and produce more offspring |
| offspring | the young born of living organisms |
| palaeontology | study of prehistoric species |
| species | a group of animals or plants that have similar features and can breed with each other |
| variation | a different form of something |

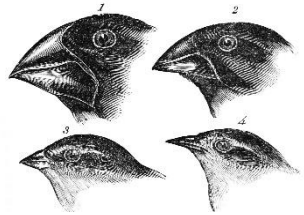
## Charles Darwin



Born: 12th February 1809
Died: 19th April 1882
English Scientist

He published his scientific theory of natural selection in a book called 'On the Origin of Species' in 1859. Darwin's theory explained how every living thing is connected in a family tree that stretches back billions of years to the beginning of life on Earth.

## Evolution



**Darwin's Finches**

The finches on the Galapagos Islands have all developed different beaks. Originally, the finches had large beaks for cracking large nuts. A group of finches came from another island who were larger and drove those away and ate their nuts. Over time, the finches developed beaks to eat smaller nuts that the other finches did not eat.

## Key Facts:

**Adaptation**

Living things are adapted to their habitats, which means that they have special features that help them to survive.



long roots to collect water from a large area



large ears that it flaps to keep cool



thick fur to keep it warm

**Inheritance**

When living things reproduce, they pass on characteristics to their offspring such as eye colour, skin colour and height. All living things produce offspring of the same kind, but normally offspring are not identical to their parents; there are variations that make them different. Variation is the differences between living things in a species.

**Evolution**

Charles Darwin noticed that everything in the natural world was in competition. The winners were those that had characteristics, which made them better adapted for survival. These living things were more likely to reproduce and pass on their useful characteristics to their offspring. Living things that were poorly adapted were less likely to survive and their characteristics were not as likely to be inherited. Over time, the characteristics that help survival become more common and a species gradually changes.

When a habitat changes, the animals and plants that live there are affected.



The dodo was a flightless bird from Mauritius which failed to adapt to its new environment. Humans arrived, hunted it and introduced other animals and so it became extinct in 1681.

Evolution of a species happens over such long periods of time; evidence is usually taken from fossils.

