

EVOLUTION AND INHERITANCE

Knowledge Organiser

Year 6, Summer 2: Evolution and Inheritance
 Science Strand: Biology
 Whole School Topic: Express Yourself

Key Vocabulary

adapted/ adaptation	A change in structure or function that improves the chance of survival for an animal or plant within a given environment.
characteristics	A distinguishing trait, feature or quality.
environment	The conditions in which a living thing exists.
fossil	The naturally preserved remains or traces of animals or plants that lived long ago.
inherited	The way a trait or characteristic is passed to offspring from parents.
offspring	A person's child/children or an animal's young.
species	A group of closely related organisms that are very similar to each other.
variation	A change or small difference.

Scientific Enquiry Approaches that we can use this term:



What will I know about evolution and inheritance by the end of this topic?

- Living things have changed over time.
- Fossils provide information about living things that inhabited the Earth millions of years ago.
- Recognise that living things produce offspring of the same kind.
- Know that offspring vary and are not identical to their parents.
- Identify how animals and plants are adapted to suit their environment in different ways.
- Know that adaptation may lead to evolution.

Adaptation

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

Camel

- Camels have thick, rubbery lips to allow them to eat prickly desert plants.
- Nostrils can be closed to prevent sand entering the nose.
- Fat stored in their humps allow camels go to go a long time without food.
- Two rows of eyelashes keep sand out of their eyes.
- Large flat feet distribute weight on soft sand.

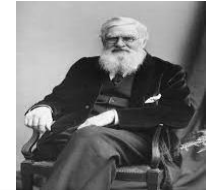
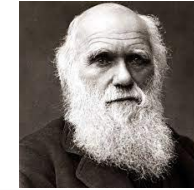
Inheritance

When parents have offspring, they pass on their physical traits. This means that most offspring look like their parents but are not identical.

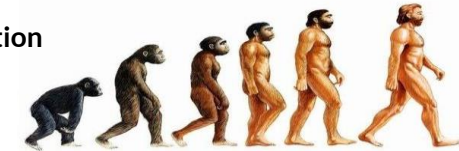
Fossils give us evidence of what lived on Earth millions of years ago. They provide evidence to support the theory of evolution.



Significant Scientists: Charles Darwin and Alfred Wallace



Evolution



Adaptation can lead to evolution if the environment changes.

If the environment changes rapidly, some variations of a species may not suit the environment and will die.

If the environment changes slowly, animals and plants with variations that are best suited survive in greater numbers to reproduce and pass their characteristics onto their young.

Over time, these inherited characteristics become more dominant within the population.

Over a very long period of time, these characteristics may be so different to how they were originally that a new species is created. This is evolution.

Before the industrial revolution, the peppered moth was a light grey colour and blended in with the lichens that covered the trees. After the start of the industrial revolution, the air became more polluted. This caused the lichens to die off. This in turn caused the dark peppered moths to increase in population.

