



### Lesson Sequence



1. Understand how offspring vary and are not identical to their parents



2. Learn about animal adaptations



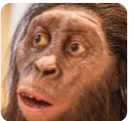
3. Learn about plant adaptations



4. Explore what we can learn from fossils



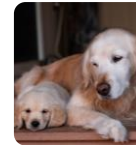
5. Explore the theory of evolution by natural selection



6. Explore human evolution

### Characteristics and Variation

A characteristic describes how something looks or how it behaves. **Characteristics** can be passed on from parents to their offspring, meaning that they can be **inherited**. They can include hair colour, eye colour and height. However, **environmental** factors are important too.



### Charles Darwin, the Galapagos Islands and Human Evolution

Charles Darwin was a famous naturalist who studied finches and tortoises on the Galapagos Islands. He suggested that some species may share a common ancestor and evolve to suit their habitats. He called this process natural selection.

**Australopithecus**

**Homo habilis**

**Homo erectus**

**Homo heidelbergensis/**

**neanderthalensis**

**Homo sapiens**

3.6 million years ago

Human Evolution

Today

### Adaptations

Plants and animals have numerous **adaptations** which help them to survive in their **habitats**.

- Camels have humps to store food, two rows of eyelashes and small slits for nostrils
- Epiphytes are plants which can grow on the surface of another plant
- Some plants contain toxic minerals to protect themselves from predators
- Other plants can store water, trap insects and smother other plants



### Fossils

Mary Anning was a palaeontologist who found and collected many fossils along the Jurassic Coast in Dorset. She was the first person to uncover a full ichthyosaurus skeleton.





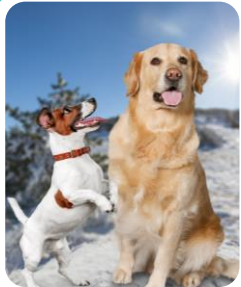
# Knowledge Organiser: Evolution and Inheritance

*Before & After Test*



Match up the stages of human evolution with a number so that they are in the correct order.

- Homo habilis 1.
- Homo sapiens 2.
- Australopithecus 3.
- Homo erectus 4.
- Homo heidelbergensis 5.



If the 2 dogs in the picture were to have offspring, what would they look like?

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Draw lines to match up each picture of a plant/animal adaptation with the description which tells us why it is useful.



can use a special scent to attract and trap insects



this stores rich fat as a form of nutrition



thick layers of fat and fur provide insulation



can change the colour of their skin to camouflage against predators



can grow on the surface of another plant instead of in the soil



Look at the pictures and answer the questions.

1. In which area of England can many fossils from the Jurassic era be found?
2. What is the difference between these 2 pictures?

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Rocket Words

	inherit	when features are passed on from parents to offspring
	adaptation	changes or special features of a living thing to help it live in a habitat
	epiphytes	plants that grow on the surface of other plants
	fossil	the remains or impression of a prehistoric plant or animal embedded in rock
	Mary Anning	A famous palaeontologist who discovered fossils on the Jurassic Coast
	palaeontologist	a scientist that studies the remains of plants and animals found as fossils
	ichthyosaurus	a large marine reptile that lived 201-194 million years ago
	Charles Darwin	an English naturalist, best known for his theory of evolution
	evolved	how living things gradually change over time
	natural selection	survival and reproduction of the fittest
	ancestor	a person/living thing an organism is descended from
	Homo sapiens	the scientific name for the human species