

Year 6 Evolution and Inheritance

(Biology)



Prior and future learning

Prior Knowledge	What's next?
<ul style="list-style-type: none"> I can describe in simple terms how fossils are formed when things that have lived are trapped within rock. (Y3 - Rocks) I can recognise that environments can change and that this can sometimes pose dangers to living things. (Y4 - Living things and their habitats) I can describe the life process of reproduction in some plants and animals. (Y5 - Living things and their environment). 	<ul style="list-style-type: none"> Heredity as the process by which genetic information is transmitted from one generation to the next. (KS3) A simple model of chromosomes, genes and DNA in heredity, including the part played by Watson, Crick, Wilkins and Franklin in the development of the DNA model. (KS3) The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection. (KS3) Changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction. (KS3)

Track your learning

How I will show what I have learned			
I can explain the process of evolution.			
I can give examples of how plants and animals are suited to an environment.			
I can give examples of how an animal or plant has evolved over time e.g. penguin, peppered moth.			
I can examples of living things that lived millions of years ago and the fossil evidence we have to support this.			
I can give examples of fossil evidence that can be used to support the theory of evolution.			

Key knowledge I need to understand
<ul style="list-style-type: none"> All living things have offspring of the same kind, as features in the offspring are inherited from the parents. Due to sexual reproduction, the offspring are not identical to their parents and vary from each other. Plants and animals have characteristics that make them suited (adapted) to their environment. If the environment changes rapidly, some variations of a species may not suit the new 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 on to 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. Fossils give us evidence of what lived on the Earth millions of year ago and provide evidence to support the theory of evolution. Charles Darwin observed how living things adapt to different environments to become distinct varieties with their own characteristics.



Scientist: Charles Darwin

Working scientifically assessment: fossil habitats or egg strength.

Possible texts to read:
 One Smart Fish – *Christopher Wormell*
 The Molliebird – *Jules Pottle*

Key vocabulary I need to know	
adaptation	a change in structure or function that improves the chance of survival for an animal or plant within a given environment
ancestor	an early type of animal or plant from which a later, usually dissimilar, type has evolved
biodiversity	a wide variety of plant and animal species living in their natural environment
biome	a large naturally occurring community of animals and plants occupying a major habitat
breeding	the process of producing plants or animals by reproduction
characteristics	the qualities or features that belong to them and make them recognisable
environment	all the circumstances, people, things, and events around them that influence their life
evolution	a process of change that takes place over many generations , during which species of animals, plants, or insects slowly change some of their physical characteristics
extinct	no longer has any living members, either in the world or in a particular place
fossil	the hard remains of a prehistoric animal or plant that are found inside a rock
generation	the act or process of bringing into being; through reproduction, especially of offspring
inherit	If you inherit a characteristic you are born with it, because your parents or ancestors also had it.
maladaptation	the failure to adapt properly to a new situation or environment
mutation	characteristics that are not inherited from the parents or ancestors and appear as new characteristics .
natural selection	a process by which species of animals and plants that are best adapted to their environment survive and reproduce , while those that are less well adapted die out
offspring	a person's children or an animal's young
palaeontology	the study of fossils as a guide to the history of life on Earth
reproduction	when an animal or plant produces one or more individuals similar to itself
species	a class of plants or animals whose members have the same main characteristics and are able to breed with each other
survive	continue to exist
theory	a formal idea or set of ideas that is intended to explain something
variation	a change or slight difference