



Key Vocabulary	
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
adaptation	a change in structure or function that improves the chance of survival for an animal or plant within a given environment
species	a class of plants or animals whose members have the same main characteristics and are able to breed with each other
inherit	If you inherit a characteristic you are born with it, because your parents or ancestors also had it.
characteristics	the qualities or features that belong to them and make them recognisable
mutation	characteristics that are not inherited from the parents or ancestors and appear as new characteristics.
fossil	the remains or impression of a prehistoric plant or animal embedded in rock and preserved in petrified form
extinct	a species that is no longer existing.
palaeontology	the branch of science concerned with fossil animals and plants.
gene	part of a cell in a living thing which controls its physical characteristics.

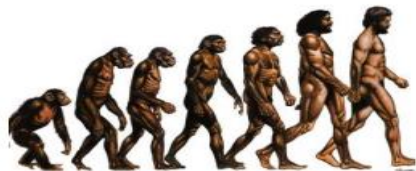
Focused Scientist – Charles Darwin

Charles Darwin was an English scientist best known for his theory of evolution. He was a geologist who travelled across the world in 1831 on the HMS Beagle. He studied many animals and plants on his travels and came up with the idea of natural selection (the strongest survive and evolve).



Evolution

Evolution is the gradual process by which different kinds of living organism have developed from earlier forms over millions of years. Scientists have proof that living things are continuously evolving – even today!



Fossils



Fossils are the remains of living things which inhabited the world millions of years ago. They are formed in sedimentary rocks (sand, mud and pebbles squashed under layer, after layer over time) and plants/animals get trapped in these layers, revealing their shape.

(Focused Scientist - Mary Anning)
Mary Anning lived in the seaside town of Lyme-Regis. She found 'curiosities' which she later found out were fossils. She made many incredible discoveries. She is remembered as one of the greatest fossil hunters ever.









Inheritance

When parents have offspring, they pass on their physical traits. The offspring inherit their parents' qualities. This means that most offspring look like their parents but they are not identical. The offspring may take characteristics from the father, the mother or a mixture of both.

Traits you can inherit	Traits you can't inherit
<ul style="list-style-type: none"> eye/hair/skin colour shape of nose size of feet height 	<ul style="list-style-type: none"> a good singing voice ability to play football drawing skill

Adaptation

Adaptations are any physical or behavioural characteristics of an animal that help it to survive in its environment. Living things are adapted to their habitats. This means that they have special features that help them to survive. It's not just animals that are adapted to their environment, plants are too. A cactus is well adapted for survival in the desert. They have long roots to collect water from a large area and a stem that can store water for a long period of time. The animals and plants in one habitat are suited to live there and may not be able to survive in other habitats. When a habitat changes, the animals and plants that live there are affected

Living Things	Habitat	Adaptive Traits
Polar bear 	arctic 	Its white fur enables it to camouflage in the snow.
camel 	desert 	It has wide feet to make it easier to walk in the sand
Cactus 	desert 	It stores water in its stem.