



Year six science

Evolution and Inheritance



Inheritance	Have you ever been told you look like your parents or grandparents? That's because we inherit features and characteristics from eg our hair and eye colour, our height and face shape.
Natural selection	The idea that some individuals have characteristics that mean they are better adapted to their environment and will survive. These tiny changes occur over many generations. For example the giraffe's neck became longer over millions of years. Animals with longer necks survived better than those with shorter necks because they could reach more food and they could see predators more easily.
Peppered moths adaptation	<p>The peppered moths are either black or white. Black moths are more easily seen against light coloured wood so black moths were eaten by predators and were rare. In the 1800s air pollution changed the buildings to a darker colour so black moths had the upper hand when hiding and white moths were rare.</p> <p>The generations of peppered moth have changed as the buildings and trees around them have changed.</p>
Darwin's finches adaptation	Darwin's finches found on the Galapagos islands are an excellent example of the way in which species adapt for long term survival. Their beaks have evolved over time to be best suited for obtaining food on different island conditions. Look at the diagram. Some finches have long beaks for picking out hidden insects and grubs, some have short fat beaks to crush seeds.



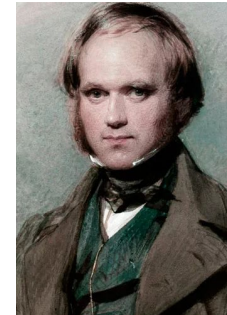
Janaki Ammal

An Indian botanist. She studied offspring and cross-breeding, particularly in plants. Her work on cross-breeding Indian sugarcane plants (to get the tastiest sugarcane) changed the taste of Indian sugar.



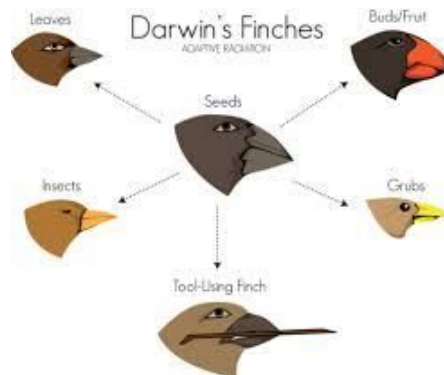
Charles Darwin

Was famous for his theory 'On the Origin of the Species'. Born in 1809 he was a naturalist who travelled the world studying plants and animals. During his voyage on the HMS Beagle he produced detailed research to explain his theory evolution. At the time people were very shocked by his ideas which created a lot of discussion amongst religious groups.



John Edmondson

John Edmonstone was a former enslaved man who taught the young Charles Darwin the skill of taxidermy. This skill helped Darwin preserve the birds that developed his ideas about evolution.



Which beaks are best adapted for crushing seeds? And which ones will be good for picking out hidden insects?

Key vocabulary

fossils	Preserved remains of a living thing from the past
adaptation	The process of change so that an organism or species can become better suited to its environment
environment	The surroundings or conditions in which a person, animal or plant lives
evolution	Evolution is the idea that all species change over time to become better suited to their environment. It is a slow process that has happened over millions of years.
organism	An animal or plant
inherit	The characteristics passed down from an ancestor
ancestor	A person or animal from whom an offspring is descended
species	A group of animals or plants who have the same main characteristics and are able to produce offspring
offspring	An animal's children
breeding	The mating and production of offspring by animals
descendant	Animals or people in later generations who are related to older generations
variation	A slight change or difference in characteristics.