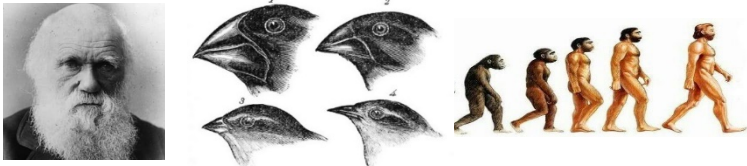


William Barnes Primary School		Subject: Science	
Unit: Evolution and Inheritance		Year 6	
What should I already Know?			
<ul style="list-style-type: none"> • Which things are living and which are not • How to classify animals (e.g. amphibians, reptiles, birds, fish, mammals, invertebrates) and plants using classification keys • Animals which are carnivores, herbivores and omnivores • Animals have offspring which grow into adults • The basic needs of animals for survival (water, food, air) • Some animals have skeletons for support, protection and movement • Food chains, food webs and the role of predators and prey 		<ul style="list-style-type: none"> • Features of habitats and the animals and plants that exist there (biodiversity) • Examples of different biomes • The life cycle of some animals and plants • Sometimes environments can change and this has an effect on the plants and animals that exist there • Living things breed to produce offspring which grow into adults. This is called reproduction • The role of Mary Anning in palaeontology and the discovery of fossils • The features of some rocks and the role they play in the formation of fossils 	
Scientific Learning			
What is Evolution? <ul style="list-style-type: none"> • Evolution is 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. This is because offspring are not identical to their parents. • It occurs when there is competition to survive. This is called natural selection. • Difference within a species (for example between parents and offspring) can be caused by inheritance and mutations. • Inheritance is when characteristics are passed on from generation to the next. <p>Mutations in characteristics are not inherited from the parents and appear as new characteristics.</p>		What is Adaptation? <ul style="list-style-type: none"> • Adaptation is when animals and plants have evolved so that they have adapted to survive in their environments. For example, polar bears have a thick layer of blubber under their fur to survive the cold, harsh environment of the Arctic while giraffes have long necks to reach the leaves on trees. • Some environments provide challenges yet some animals and plants have adapted to survive there <p>Sometimes adaptations can be disadvantageous. For example: light v dark coloured wings in peppered moths. Also if the environment changes it can alter whether or not an adaptation is useful e.g. peppered moths or Molliebird story.</p>	
Scientific Enquiry. <ul style="list-style-type: none"> • Research the work of Charles Darwin and Alfred Russel Wallace. • Observe the way peppered moths changed over time in reaction to changes in their environment. • Create a fact file of an animal or plant identifying how it is adapted to its Environment. 			
What should I Know by the end of the unit?			
<ul style="list-style-type: none"> • Examples of animal adaptations. • Who Charles Darwin and Alfred Wallace were and why they are important. • What inheritance is and how it works. • What is meant by the term natural selection and evolution. • An example of an animal affected by natural selection. 		<ul style="list-style-type: none"> • Charles Darwin, an evolutionary scientist, studied different animal and plant species, which allowed him to see how adaptations could come about. His work on finches was some of his most famous. <div style="text-align: center;">  </div>	
Vocabulary			
adaptation	a change in structure or function that improves the chance of survival for an animal or plant within a given environment	generation	the act or process of bringing into being; through reproduction , especially of offspring
ancestor	an early type of animal or plant from which a later, usually dissimilar, type has evolved	inherit	if you inherit a characteristic you are born with it, because your parents or ancestors also had it
biodiversity	a wide variety of plant and animal species living in their natural environment	natural	a process by which species of animals and plants are best
characteristics	the qualities or features that belong to them and make them recognisable	selection	adapted to their environment survive and reproduce , while those that are less well adapted die out
environment	all the circumstances , people, things, and events around them that influence their life	offspring	a person's children or an animal's young
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 to enable them to survive better in their environment.	palaeontology	the study of fossils as a guide to the history of life on Earth
extinct	no longer has any living members, either in the world or in a particular place	reproduction	when an animal or plant produces one or more individuals similar to itself
fossil	hard remains of a prehistoric animal or plant that are found inside a rock	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 that is intended to explain something
		variation	a change or slight difference