Evolution SCIENCE KNOWLEDGE ORGANISER

ESSENTIAL EVOLUTION VOCABULARY	
naturalist	An expert of natural history.
theory	An idea intended to explain something.
Darwin	A British scientist who developed the theory of evolution and natural selection
fossils	The remains or the imprint of a prehistoric living thing.
traits	Genetic features that are either inherited or adapted.
adaptation	A trait or characteristic that changes to improve chance of survival.
inheritance	The characteristics passed down from parents to offspring.
offspring	The young animals or plants that are produced through reproduction.
variations	The differences between different individuals in a species.
evolution	Adaptation over a very long time.
reproduce	Producing offspring through sexual or asexual reproduction
habitat	The natural home or environment of an animal, plant or other organism.
biodiversity	The variety of plant an animal live in a particular habitat.
species	A group of living organisms consisting of similar individuals.
environment	An environment contains many habitats with living things.

Adaptive Traits	Inherited Traits
Characteristics influenced by the environment and adapt as a result of things like climate and food.	Traits that are passed on from parents to offspring, such as eye colour and hair colour. 

Charles Darwin

Charles Darwin was an English naturalist, geologist and biologist, best known for his contributions to the science of evolution. Darwin first shocked the very religious Victorian society when he suggested that humans and other animals shared common ancestors; however, his non-religious biological theories appealed to professional scientists, and by the time of his death, his view became more widely accepted.

He famously published his findings in his book 'On the Origin of Species by Means of Natural Selection'.

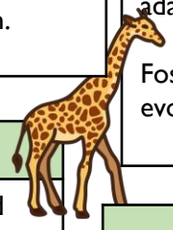
Mary Anning

Mary Anning was an English fossil collector and palaeontologist who became well known for the important discoveries she made in Jurassic marine fossil beds along the English Channel. Her findings contributed to major changes in scientific theories about prehistoric life and the history of the Earth.

Natural Selection

Natural selection is sometimes known as 'survival of the fittest', where the best adapted living things are able to survive. The members of the species with the most desirable characteristics produce the best adapted offspring.

Fossils of giraffes show that they used to have shorted necks but have evolved to have necks long enough to reach leaves on taller trees.



Fossils

Fossils are the preserved remains of animals and plants from millions of years ago. Scientists use fossils to see what living things looked like in the past and they are proof that living things have evolved over time.

Evolution

Evolution is the slow process of change that living things go through over long periods of time. Scientists have proof that living things have developed from earlier forms over millions of years and are still evolving today!

MAKING LINKS TO PREVIOUS LEARNING GOLDEN VOCABULARY	
Habitats	Animals adapt to survive and live in different **habitats**.
Rainforest	There is a wide range of **biodiversity** found in the rainforest.
Habitats	Different **species** of animals live in different habitats.
Habitats	**Environments** contain many different habitats.

Adapting to Environments

Polar bears have adapted to the arctic as they have thick fur to keep them warm. This helps them to retain heat.	Camels have adapted to the desert as they have slit-like nostrils and two rows of thick eyelashes to protect them from the sand,
Spider monkeys have adapted to the rainforest as they have long, string limbs to help them climb through the trees.	Cacti have adapted to the desert as they can store water in their stems and spines that protect them from animals that might eat them.