

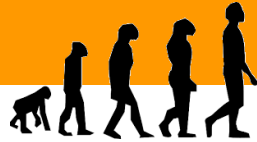


Year 6 - Spring 2 - Science Knowledge Organiser

What I already know...

- That fossils are formed when things that have lived are trapped within rock.
- That fossils are traces and remains of an ancient living thing.
- That plants have different parts with different functions which help them to survive (e.g. a cactus has modified leaves so that it can survive in a dry desert and spines are better at conserving water by limiting evaporation).

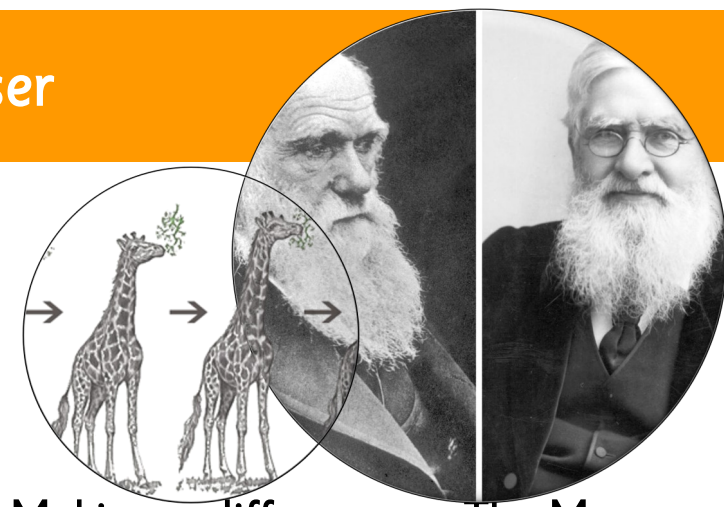
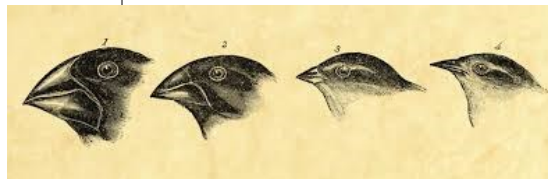
What I will learn...



- Fossils are formed over millions of years and they are trapped in layers of rocks.
- We can use the layers of rocks to identify how old fossils are and how species have changed over time.
- Mary Anning was an influential and pioneering palaeontologist and fossil collector.
- Charles Darwin and Alfred Wallace developed the ideas on evolution.
- Living things have changed over time.
- Characteristics are passed from parents to their offspring.
- When offspring have similar characteristics to their parents, we say they are inherited.
- Eye colour, hair colour and height are inherited characteristics whereas food preferences, sporting ability and likes/dislikes are environmental characteristics.
- Variation in offspring over time can make animals more or less able to survive in particular environments.
- Natural selection is where the better adapted members of a species to the environment survive and these survivors pass on their genes to their offspring.

Key Vocabulary

evolution	The process of change to animals or plants over long periods of time.
inheritance	When living things reproduce they pass on characteristics to their offspring. This is known as inheritance.
offspring	The child or young of a particular human, animal or plant.
adaptation	Special features that plants and animals develop to suit the place that they live.
variation	The differences in characteristics between individuals of the same species.
natural selection	A process by which a species changes over time in response to its environment. The members of the species with the most desirable characteristics are able to produce the best-adapted offspring.
species	A species is a kind of organism. All animals and plants that are the same kind belong to the same species.
characteristics	The distinguishing features or quality of something.



Making a difference at The Merton

Our evolution and inheritance topic is intended to look at how living things (plants and animals) produce offspring that are similar in appearance, but not identical to themselves. Throughout our learning, we will also consider how animals change over time as they adapt to their surroundings and how this leads to longer term changes. We will learn how these changes over long periods of time have made a difference to a variety of species and how their chances of survival have consequently improved. We will learn about the influential scientists within this area of study by learning about Charles Darwin and Alfred Wallace and, using our understanding, we will look at species of endangered animals and consider what changes are threatening their existence and how we can make a difference.

How to be a scientist

Throughout this topic, the children will learn how to explore ideas and raise questions about animals and how they are adapted to their environment. Using their observation skills, the children will compare how some living things are adapted to survive in extreme conditions whereas others are unable to. The children will learn how to analyse the advantages and disadvantages of specific adaptations and will review scientific evidence to support or refute ideas or arguments.