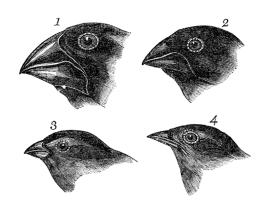


UKS2 Science Knowledge Organiser Jurassic Jewels and Triassic Treasures

Key Knowledge and Skills

Evolution

- 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.
- It occurs when there is competition to survive. This is called natural selection. Difference within a species can be caused by inheritance and mutations.



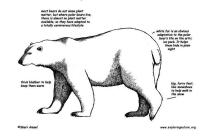
Inheritance

- Inheritance is when something is passed on to the next generation. Offspring are not identical to their parents and some characteristics are inherited (passed on from parents to offspring).
- Other differences are new in offspring these are called mutations.

Adaptation

- Adaptation is when animals and plants have evolved so that they
 have adapted to survive in their environments. If a species is
 well adapted it will survive and pass on successful genes to
 offspring.
- However, being highly adapted to one specific environment can be detrimental to a species' survival if there are sudden changes to that environment.

Adaptations of the Polar Bear



Fossils

- Fossils are the remains of living things which inhabited the world millions of years ago. They are formed in sedimentary rock (sand, mud, and pebbles squashed under layer, after layer over time) and plants/animals become trapped in these layers, revealing their shape.
- When palaeontologists compare fossils to animals from today, they can see similarities and identify relationships between Them. Scientists can discover what the animal ate, where it lived and how it died.

Skills

 Taking accurate measurements, using a range of scientific equipment, checking with repeat readings.

Key Vocabulary Word Definition adaptation the process of change by which an organism or species becomes better suited to its environment. a person or animal from whom one is descended from. ancestor characteristics a distinguishing trait, feature or quality. evolution the process of gradual change that takes place over many generations. extinct a species that is no longer existing. the naturally preserved remains or traces of animals or plants that lived fossil long ago. part of a cell in a living thing which controls its physical characteristics. genes habitat a specific area or place in which particular animals and plants can live. inheritance the particular characteristics received from parents through genes. natural the process by which species that are best adapted to their environment selection survive and reproduce, while less well adapted species die out. offspring the young animal or plant that is produced by the reproduction of that species. an individual animal, plant or singular-celled life form. organism palaeontology the branch of science concerned with fossil animals and plants. relating to the period before written records. pre-historic a group of closely related organisms that are very similar to each other. species variation differences between cells, individual organisms, or groups of organisms of any species caused either by genetic differences or by the effect of environmental factors.

Focus Scientists

Mary Anning

Mary anning (1799-1847) was a famous fossil hunter and collector. She found and identified many pre-historic fossils from the time of the dinosaurs.

Charles Darwin

Charles Darwin (1809-1882) was an English scientist best known for his theory of evolution. He was a geologist who travelled around the world, studying many animals and plants.