



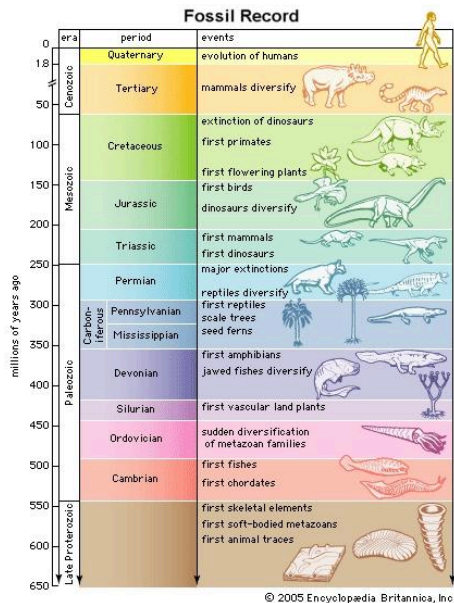
UKS2 Science Knowledge Organiser

Jurassic Jewels and Triassic Treasures

Key Knowledge and Skills

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.
- A palaeontologist is someone who studied fossils. When they 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.
- A fossil record is a collection of fossils that document the history of life on Earth.



Evolution

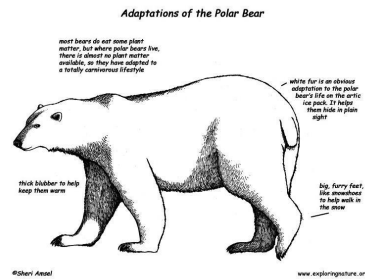
- Evolution is a process of change that takes place over many generations, during which species of animals, plants, or insects slowly change some of their physical characteristics.
- It occurs when there is competition to survive. This is called natural selection. Difference within a species can be caused 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).

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.



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.
ancestor	a person or animal from whom one is descended from.
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.
fossil	the naturally preserved remains or traces of animals or plants that lived long ago.
genes	part of a cell in a living thing which controls its physical characteristics.
habitat	a specific area or place in which particular animals and plants can live.
inheritance	the particular characteristics received from parents through genes.
natural selection	the process by which species that are best adapted to their environment 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.
organism	an individual animal, plant or singular-celled life form.
palaeontology	the branch of science concerned with fossil animals and plants.
pre-historic	relating to the period before written records.
species	a group of closely related organisms that are very similar to each other.
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

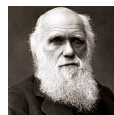
Mary Anning

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.



Harry Seeley

Harry Seeley (1839-1909) was a British palaeontologist who proposed a way of classifying dinosaurs into two groups by looking at their hip structure.



