Human Evolution, Adaptation and Inheritance

Knowledge Organiser

Key Questions

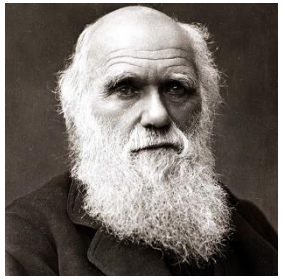
- What is evolution?
- What is inheritance and how are traits passed to offspring?
- How can we find out about living things that inhabited the Earth millions of years ago?
- How are animals and plants adapted to suit their environments?

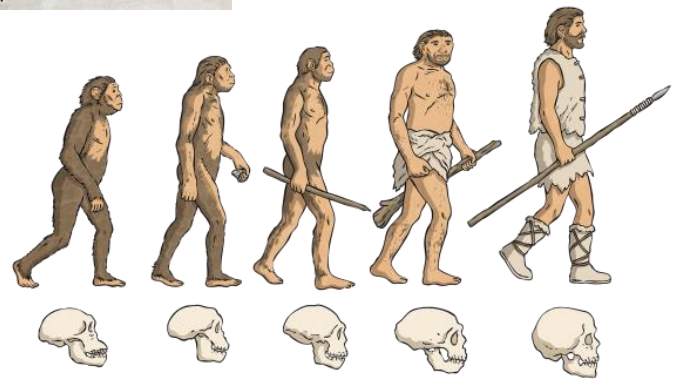
Key Vocabulary

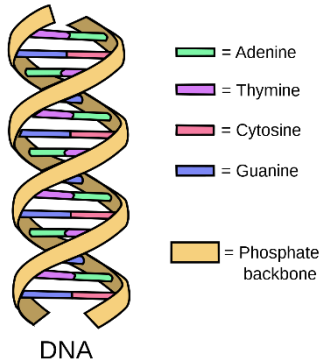
inheritance – the passing on of genetic characteristics from parent to offspring
evolution – the process by which different kinds of living organism are believed to have developed from earlier forms during the history of the Earth
fossil – the remains or impression of a prehistoric plant or animal embedded in rock or preserved in petrified form
variation – the occurrence of an organism in more than one distinct colour or form
identical – with exactly the same genetic make-up
offspring – child produced by two parents
adaptation – the process of change by which an organism or species becomes beret suited to its environment
environment – the surroundings or conditions in which a person, animal or plant lives or operates
habitat – the natural home or environment of an animal, plant or other organism
organism – a living thing

Key People

Charles Darwin - an English naturalist, geologist and biologist, best known for his contributions to evolutionary biology. His proposition that all species of life have descended from a common ancestor is now widely accepted and considered a fundamental concept in science.
Mary Anning –an English fossil hunter and amateur anatomist credited with the discovery of several dinosaur specimens that assisted in the early development of paleontology.
Rosalind Elsie Franklin - was a British chemist and X-ray crystallographer whose work was central to the understanding of the molecular structures of DNA, RNA, viruses, coal, and graphite.
Francis Crick and James Watson – Scientists who worked on understanding the structure of DNA. Unknown to Franklin, Watson and Crick saw some of her unpublished data. Using Franklin's photograph and their own data, Watson and Crick created their famous DNA double helix model. Watson, Crick and Wilkins shared the Nobel Prize in Medicine in 1962. Franklin's contribution was not acknowledged, but after her death Crick said that her contribution had been critical in understanding the structure and how genetic information is passed on.







DNA

Useful web links:
https://school-learningzone.co.uk/key_stage_two/ks2_science/the_human_body/evolution_and_inheritance/evolution_and_inheritance.html
https://www.nhm.ac.uk/schools/teaching-resources/key-stage-2/evolution-and-inheritance.html
https://www.bbc.co.uk/bitesize/topics/zvhhvcw