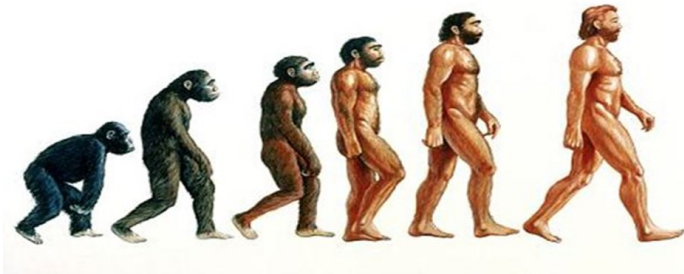




Core Knowledge—Evolution and Inheritance

All living things have offspring of the same kind, as features in the offspring are inherited from the parents. Due to sexual reproduction, the offspring are not identical to their parents and vary from each other.



Plants and animals have characteristics that make them suited (adapted) to their environment. If the environment changes rapidly, some variations of a species may not suit the new environment and will die. If the environment changes slowly,

animals and plants with variations that are best suited survive in greater numbers to reproduce and pass their characteristics on to their young.

Over time, these inherited characteristics become more dominant within the population. Over a very long period of time, these characteristics may be so different to how they were originally that a new species is created. This is evolution.

Fossils give us evidence of what lived on the Earth millions of year ago and provide evidence to support the theory of evolution.



Scientific Enquiry

Key Vocabulary

Vocabulary	Definition
characteristics	The qualities, traits or features of a living thing.
evolve	A process of gradual change that happens to a living organism over many generations.
Inherit	To gain a characteristic genetically from a parent or ancestor.
species	Plants or animals which have the same characteristics and are able to produce offspring.
variation	Some differences between individuals of the same species caused by genes or environment.

Core Knowledge—Key scientists

Mary Anning (1799-1847) was a palaeontologist who lived in Lyme-Regis where she found ‘curiosities’ which she later realised were fossils. She made many incredible discoveries and important scientists asked her for advice but at the time she was not as recognised for her work as she should have been and others took credit for it.

Charles Darwin (1809-1882) was an English scientist best known for his theory of evolution. He studied many animals and plants on his travels and suggested the idea of natural selection - the best adapted species in an environment would be strongest and would survive and evolve. His most famous study was on the Galapagos Island finches.

Alfred Wallace (1823– 1913) was an English explorer and collector ,who independently worked on a theory of evolution and collaborated with Darwin to publish their ideas. He studied warning colours in animals, especially insects.