Science Knowledge Organiser – Evolution

Year 6 Term 6

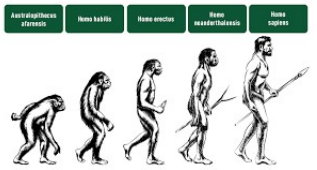
What should I already know?

- Living things can be sorted into different groups based on their characteristics.
- Fossils are the remains or traces of ancient living things preserved in rock.
- Animals and plants are suited to their habitats and have features that help them survive.

Adaptation	A special feature or behaviour that helps an animal or plant survive in its environment.
Natural Selection	The way animals and plants that are better suited to their environment survive and have more babies.
Species	A group of living things that are similar and can have babies together.
Variation	The differences between individuals in the same species, like different fur colours or heights.
Fossils	The remains or traces of plants and animals that lived long ago, found in rocks.
Habitat	The place where an animal or plant lives and grows.
Charles Darwin	Scientist who developed the theory of evolution by natural selection.
Galapagos Islands	The place where Darwin studied finches that led to his theory of evolution.

Where this fits in.

Year 2: Identified how animals are suited to different habitats. Year 3: Learned how fossils are formed when studying rocks. Year 4: Learned how environments can change and pose dangers to living things. Year 5: Learned about life cycles in plants and animals. Spring Term, Year 6: Studied characteristics of living things to classify and group them.

What will I know by the end of the unit?

What can we learn from fossils about changes over time?	• Evidence of **evolution** comes from **fossils** - when these are compared to living creatures from today, **palaeontologists** can compare similarities and differences. • Other evidence comes from living things - comparisons of some **species** may reveal common **ancestors**.
Why am I not an exact copy of my parents?	• **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.** This is because **offspring** are not identical to their parents.
How are animals adapted to suit their environment?	• **Adaptation** is when animals and plants have **evolved** so that they have **adapted** to **survive** in their **environments**. For example, polar bears have a thick layer of blubber under their fur to **survive** the cold, harsh **environment** of the Arctic while giraffes have long necks to reach the leaves on trees. • Some **environments** provide challenges yet some animals and plants have **adapted** to **survive** there
What has Charles Darwin taught us about evolution?	• Evolution occurs when there is competition to **survive**. This is called **natural selection.** • Difference within a **species** (for example between parents and **offspring**) can be caused by **inheritance** and **mutations**..
How can we explain the process of evolution?	• Inheritance is when **characteristics** are passed on from generation to the next. **Mutations** in **characteristics** are not **inherited** from the parents and appear as new **characteristics**