Science – Year 6 Autumn term
Evolution and Inheritance

(Previous knowledge – Fossils in Year 3)

Vocabulary		
Tier 1	Tier 2	Tier 3
Offspring	Inheritance	Evolution
Environment	Variations	Natural selection
Habitat	Characteristics	Adaptive traits
Species	Resemble	Inherited traits
Survive	Fossil	Adaptation
Identical	Trait	Organism

don't know — I know this word — I can use it in a sentence

Useful Resources

https://www.nhm.ac.uk/schools/teaching-resources/key-stage-2/evolution-and-inheritance.html

https://school-learningzone.co.uk/key_stage_two/ks2_science/the_human_body/evolution_and_inheritance/evolution_and_inheritance.html

What is Evolution?

Evolution describes the gradual changes that happen in the same species, living in the same location, over a long time. Scientists have proof that living things are continuously evolving – even today! Evolution happens over a long time and can only happen between parents and **offspring** through **inheritance**. Researchers and scientists have been able to use the **fossils** they have discovered to find out about different animals, their **characteristics** and how they have changed over the years.

What is Natural Selection?

Natural selection is the idea that species **evolve** over time in order to survive in their **environment** and reproduce. As **offspring** are born, they have the advantageous genetic characteristics passed on from their parents. Over time, this is how species **adapt**. Living things that are unable to **adapt** to the changes in the **environment** are unlike to survive. **Fossils** of giraffes from millions of years ago show that they used to have shorter necks. They have gradually **evolved** through **natural selection** to have longer necks so that they can reach the top leaves on taller trees.

Living Things		Habitat		Adaptation
Polar Bear		Artic		Its white fur enable it to camoflouge in the snow. It has thick layers of fat to keep warm and large feet to increase grip on the snow.
Camel		Desert		Camels have large flat feet to spread their weight on the sand. Two rows of eyelashes to keep out the sand and the ability to go a long time without water.
Cactus		Desert		Stems can store large amounts of water and their very deep roots are able to collect water. Spines also provide protection from predators.

Key Scientist:

Charles Darwin (1809-1882): A naturalist who was born on February 12th, 1809, in Shropshire, England. He died in 1882 at the age of 73. Darwin is famous for travelling the world, investigating what makes animals and plants different and introducing the Theory of **Evolution**. Darwin wrote a book called 'On the Origin of Species' in 1859. In it, he explained his Theory of **Evolution** by **Natural Selection**.