Hillcross Primary School

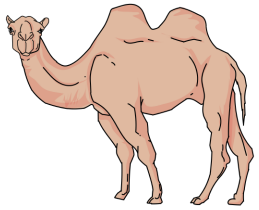
Science - Peace at Last. Where have you come from?

Year 6 Knowledge organisers 2025

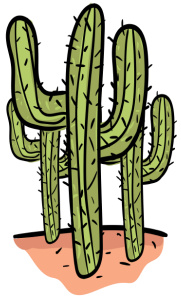
1. and 2. Why do you live here?

Adaptation is when a plant or animal has changed in some way, over a long period of time, to be better suited to the environment in which it lives.

Camels have long **eyelashes** to **protect** their eyes from the sand.



They also have **large, wide, flat feet** to help them **walk on the sand** without sinking.

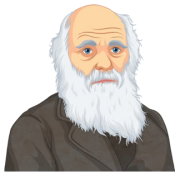


Cacti grow in the desert which is hot and sandy.

- They have spines instead of leaves **to protect them** from being eaten by predators.
- They have a thick, waxy skin which helps **reduce the amount of water they lose.**
- They have shallow, widespread roots which allow **fast absorption when it rains.**
- They have large, thick stems which allow them to **store water** until they need it.

3 & 4. Who were Mary Anning, Charles Darwin and Alfred Wallace?

Mary Anning: palaeontologist and fossil collector. She lived in Dorset and found her first fossil at the age of 12 in 1811.



Charles Darwin: famous for being the founder of the theory of Evolution which he based on evidence he collected whilst exploring the Galapagos Islands.

Alfred Wallace: independently from Darwin thought of the theory of Evolution himself but was beaten to publicising it by Darwin.

5. Who is Who?

When parents have **offspring**, they **pass on their physical traits.** The offspring inherit their parents' qualities. This means that most offspring look like their parents but they are not identical. The offspring may take characteristics from the father, the mother or a mixture of both.

Traits you can inherit	Traits you can't inherit
eye/hair/skin colour, shape of nose, size of feet, height	a good singing voice, ability to play football, drawing skills

Key Vocabulary

- **suited** – fits into the environment well.
- **adapted** – the biological way an animal adjusts to a new environment.
- **offspring** – the young of a person or living thing.
- **characteristics** – a feature or quality belonging to a person or living thing.
- **variation** – a difference between individual living things.
- **inherited** – When you receive a characteristic from an ancestor.
- **fossils**– The remains or impression of a prehistoric plant or animal preserved in rock.
- **evolution**– where different living things have developed from earlier forms during the history of the earth.
- **Natural selection**— when organisms that are best suited to their environment survive and pass on their genetic traits.

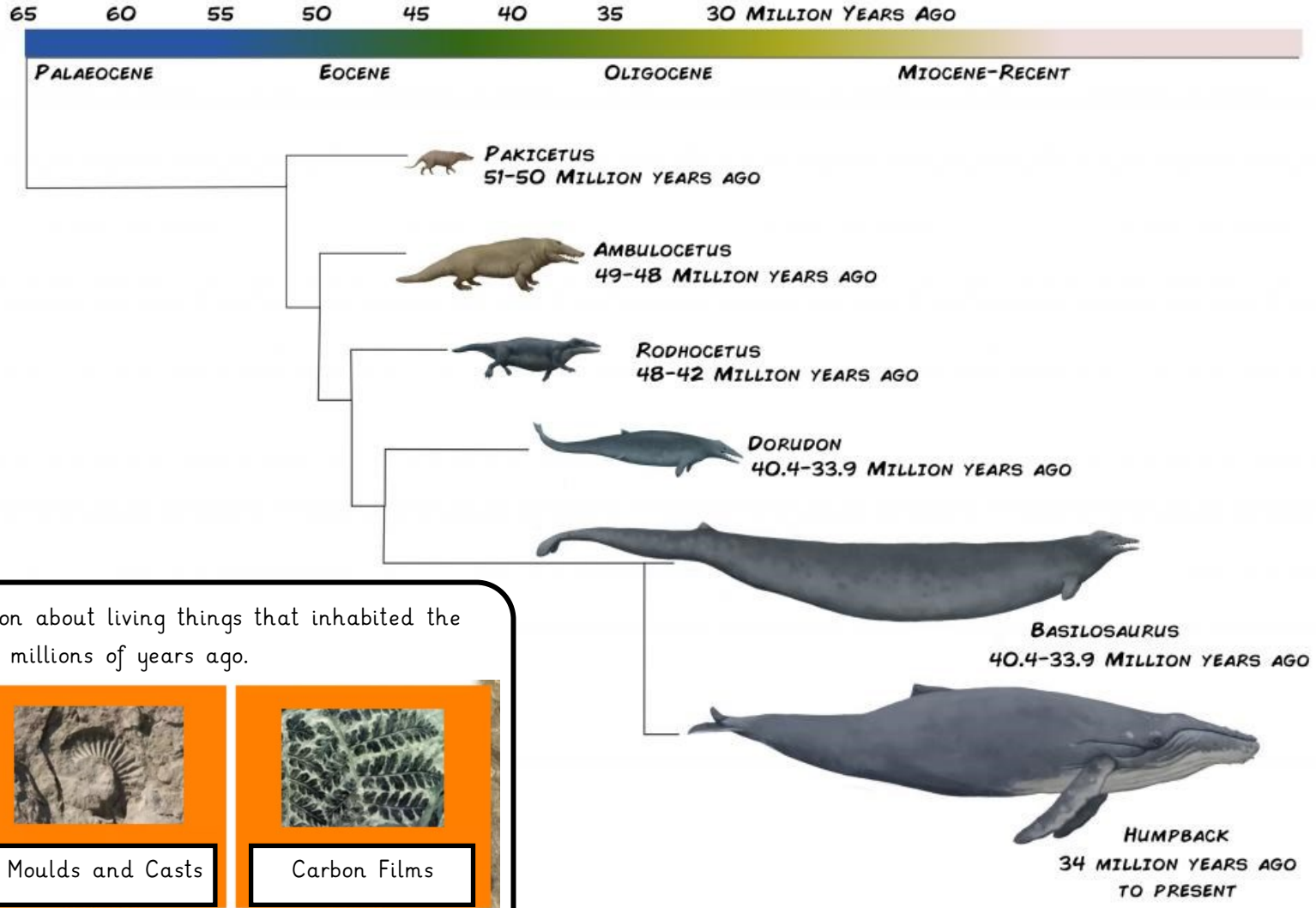
Applying Past Knowledge

Year 5: Living Things & Life Cycles
Year 4: Classifying Living Things
Year 3: Plants, rocks and how animals move.
Year 2: Life Cycles

8 IDENTITY
9 KEEPING FAMILIES TOGETHER
10 CONTACT WITH PARENTS ACROSS COUNTRIES

Identifying, Grouping and Classifying

6. How do we know what animals used to look like?



Fossils provide information about living things that inhabited the Earth millions of years ago.