

# Science – Evolution, Adaptation and Inheritance – Spring Term 1

## Prior Knowledge

- In Year 3, I learned about fossils.
- In Year 5, I learned about habitats.
- In PSHE I have learned about similarities and differences.

## Key Vocabulary

<b>Evolution</b>	Adaptations which have occurred over time.
<b>Adaptation</b>	behavioural or physical characteristics of an animal that help it to survive in its environment.
<b>Inheritance</b>	Genes passed on from parents to offspring.
<b>Extinction</b>	Complete and permanent disappearance of a species.
<b>Variation</b>	Differences between living things caused by genetics or environmental factors.
<b>Genes</b>	segments of DNA that carry instructions for building and operating living organisms.
<b>Characteristics / Traits</b>	A feature of an organism.

## Core Knowledge

- **Inheritance** refers to **genes** that are passed down to us through **DNA**. We are **diploids**, meaning we receive one set of genes (called **alleles**) from each parent (mother and father).
- Some **genes** are **dominant** and some are **recessive**. This can determine which **characteristics** (or **traits**) are inherited. You can carry a gene even if you don't have that characteristic (e.g. blue-eyed genes in a brown-eyed person).
- Charles Darwin's **theory of evolution** by **natural selection** says that species change over time (**evolve**) from common **ancestors**. His theory proposes that **inherited traits** which are best-suited to the **environment** become more frequent, leading to **adaptation**.
- These **adaptations** can be **structural** (e.g. a bird's beak) or **behavioural** (e.g. hibernation). Living things cannot **consciously** adapt to suit their environment, though humans can change things short term e.g. which clothes to wear.

## Diagrams

