

## Year 6: Evolution

### Design a Living Thing that Could Survive a Catastrophe



#### **Key Facts: Variation in Detail**

The differences between living things of the same species are called variation. **Variation between species is always greater than variation within a species.**

**Inherited variation** is a result of genetic inheritance. This means that when a sperm and egg cell combine, characteristics from both parents come together and create offspring that is similar but not identical to the parents.

Variety within a species is triggered by survival within an environment. Survivors will always have a better chance of reproducing. Overtime, this is how species evolve. **This process is called 'Natural Selection'.**

**Key Facts: Who was Charles Darwin?** Charles Darwin was an English scientist who studied nature. He is known for his theory of evolution by natural selection. According to this theory, all living things are struggling to survive. The living things that have the most helpful traits for their environment tend to survive. These living things then pass along their helpful traits to their young. In this way, animals change, or evolve, over hundreds of years. He described his ideas in his important book, *On the Origin of Species by Means of Natural Selection* (1859).

#### **Key Facts: What is 'Evolution Theory'?**

Evolution is the theory that all the kinds of living things that exist today developed from earlier types. The differences between them resulted from changes that happened over many years. The simplest forms of life arose at least 3.5 billion years ago. Over time they evolved into the millions of species, or types, of living things alive today.

#### Scientific Enquiry: Research

**Question:** What happened when Charles Darwin visited the Galapagos islands?

#### **Learning Journey:**

1. Understanding inheritance – Mr Men.
2. Fossils - investigation
3. Darwin – bird beak investigation
4. Adaption – camouflage
5. Survival – butterfly, plant and stag beetle example
6. CKT: design a living thing to survive a catastrophe
7. Assessment

#### **Vocabulary:**

**adapted/ adaption** – an adaptation is a trait (or characteristic) changing to increase a living thing's chances of surviving and reproducing.

**characteristics** – the distinguishing features or qualities that are specific to a species.

**environment** – an environment contains many habitats and includes area where there are both living and non-living things.

**evolve/ evolution** – adaptation over a long period of time.

**fossils** – the remains of or imprint of a prehistoric plant or animals. Fossils are embedded in rocks and are preserved.

**inherited** – this is when characteristics are passed on to offspring from their parents.

**habitat** – a place that provides shelter, food, water and space for a living animal or plant.

**offspring** – The young plant or animal that is produced by the reproduction of that species.

**sexual reproduction** – The act of a female and male animals breeding to make another living animal of the same species.

#### **Interleaved Links:**

**Science:** Classification – Years 2, 4 and 6.

**Class Read:** Darwin's Dragons – Class Book of choice.

**Writing:** Moth Year 6 and The Origin of Species Year 6