

# Science

All children – regardless of gender, starting point or background – will have the opportunity to engage with a high-quality science education. They will be equipped with the knowledge, skills and vocabulary to understand how science can be used to explain what is occurring, predict how things will behave and analyse caused. We intend to inspire a sense of enjoyment and curiosity about science.

## Living Things and Their Habitats

Spring 2

### Igniting Prior Knowledge:

Year 1

There are 5 main animal groups - fish, birds, amphibians, reptiles and mammals.

Year 2 - Plants

Year 4 - Living Things and Their Habitats

### Key Vocabulary:

- Reproduce
- Sexual
- Sperm
- Fertilizes
- Ovum (egg)
- live young
- Metamorphosis
- Asexual
- plantlets,
- runners,
- cuttings

### New Knowledge:

- As part of their life cycle, plants and animals reproduce.
- Most plants reproduce sexually. This means the male cell (pollen) fertilizes the female cell (egg/ovum).
- Sexual reproduction in plants occurs through pollination, usually involving wind or insects.
- This will produce offspring that is similar to, but not identical to the parent plant.
- Some plants reproduce asexually. This means it only involves one parent.
- Asexual reproduction produces offspring that is identical to the parent. These are called clones.
- Bulbs, tubers, runners, and plantlets are examples of asexual plant reproduction which involves only one parent.
- Gardeners may force plants to reproduce asexually by taking cuttings.
- Animals, including humans, have offspring which grow into adults.
- Most animals reproduce sexually. This involves two parents (a male and a female) where the sperm from the male fertilises the female egg.
- Sexual reproduction produces offspring that are similar to the parents but not identical.
- In most mammals, these offspring will be born live, such as babies or kittens, and then grow into adults.
- In other animals, such as birds and amphibians, there may be eggs laid that hatch to young which then grow to adults.
- Some young undergo a further change before becoming adults e.g. caterpillars to butterflies. This is called a metamorphosis.

