Disclaimers

This resource contains potentially sensitive and/or upsetting topics that may emotionally impact on students you use it with due to their experiences in their past. It is your responsibility to consider whether it is appropriate to use this resource with your students. If you do use this resource, it is your responsibility to ensure that appropriate support is available for anyone affected.

Families can take many forms, and it is essential that we understand that different children will have different family dynamics. Throughout this unit, when we refer to ‘parent’ and ‘offspring’ we are referring to the biological parent and their progeny.

It is important to talk about parents and offspring because, scientifically, children must understand that, even when offspring mature into adulthood, they are still referred to as the ‘offspring’.

It is equally as important to understand that any children with family members who are not biologically related, for example fostered or adopted children, could find this uncomfortable or upsetting to talk about in a classroom setting.

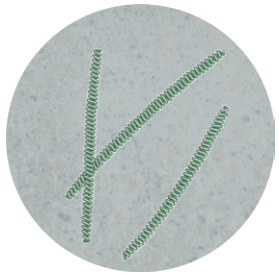
Key Vocabulary Overview	
organism	an individual thing that is living, such as an animal or plant
variation	the differences between living things
species (plural – species)	a group of living things with similar characteristics that have the potential to produce fertile offspring
offspring	the young produced by a living thing, such as an animal or a plant
fertile	able to produce offspring
characteristic	an identifiable feature of an organism
inheritance	the process of characteristics being passed down to offspring from their parent(s)
desirable characteristics	the features of a living thing that are preferred by humans

Organisms

Organisms are living things. They can be animals, plants, fungi or microorganisms (e.g. bacteria).

Species

'Species' is the scientific term given to living things that share similar **characteristics** and can produce **offspring**.



Offspring

Offspring are the young produced by an **organism** when they reproduce. The **offspring** will share similar **characteristics** with their parents.

Variation

Variation is the scientific term that refers to the differences in **characteristics** between living things. **Variation** can occur within a **species** and between **species**.

Characteristics

Characteristics are the identifiable features of an **organism**. They include hair, eye and skin colour, height and face shape.

Inheritance

In some cases, **characteristics** are passed down biologically from both parents to their **offspring**. This is called **inheritance**.

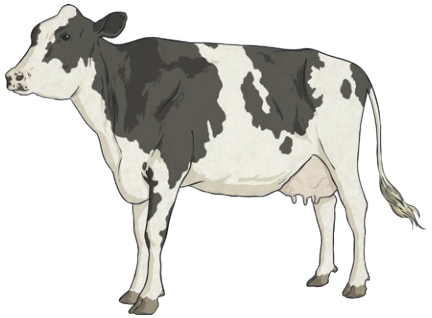
Offspring have a mixture of their parents' **characteristics**. They are similar but not identical to either parent.

For some **organisms**, **offspring** are created from only one parent, creating an identical clone of the parent.

Desirable Characteristics

Desirable characteristics are features that are preferred by humans.

Certain breeds of cattle have **desirable characteristics**, such as the ability to produce more milk or being better suited to producing high-quality meat.



Selective Breeding

Selective breeding is when **organisms** are bred for certain **desirable characteristics**. It can have many benefits.

However, it can lead to features in the **offspring** that are not healthy. For example, pugs are bred for their flattened faces. However, this can lead to breathing difficulties and skin disorders.

Why is Variation Important?

Some **characteristics** are better suited to particular environments than others. **Variation** allows a **species** to survive in different conditions and reduces the risk of extinction within a **species**.

Labradoodles combines the **desirable characteristics** of both labradors and poodles.