

### What should I already know?

- Which things are living and which are not.
- Identifying animals (e.g. amphibians, reptiles, birds, fish, mammals, invertebrates) and plants using classification keys
- Animals that are carnivores, herbivores and omnivores. Animals have offspring which grow into adults.
- The basic needs of animals for survival (water, food, air) Some animals have skeletons for support, protection and movement.
- Food chains, food webs and the role of predators and prey.

### What will I know by the end of the unit?

**Variation:** differences between individuals of a species.

There is variation in all living things.



Variation happens because of the environment, inheritance or both.

**Environmental variation** is caused by our lifestyles and surroundings, such as scars.



**Inherited variation** is caused by the genes inherited from parents, such as eye colour.



Some characteristics are affected by both the environment and inheritance, such as height and hair colour.

Living things produce offspring of the same kind but often appear different to the parents due to **variation**.

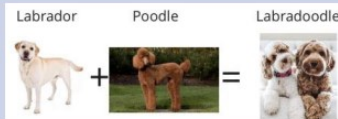


### Traits you can inherit

eye/hair/skin colour,  
shape of nose,  
size of feet,  
height

### Traits you can't inherit

a good singing voice,  
ability to play football,  
drawing skills



Living things produce offspring. Offspring are not identical to their parents.

There are variations that make them different. The two dogs have been mixed. They now have a combination of characteristics. We call the characteristics from either parent 'traits'.



Year 6

Summer 1

## Variation and Adaptations

Science

Focus:

Biology



### Vocabulary

Word	Definition
Scientific theory	An explanation of something in the natural world backed by evidence.
Variation	a different form or version of something.
Inheritance	the process by which genetic information is passed on from parent to <b>child</b> .
Adaptation	a special skill which helps an animal to survive and do everything it needs to do.
Selective breeding	involves choosing parents with particular characteristics to <i>breed</i> together and produce offspring with more desirable characteristics.
Characteristics	a special quality or appearance of an organism that makes an individual or a group different from others .
Fossils	the remains or traces of plants and animals that lived long ago.
Evolution	how living things change over a long time, and how they have come to be the way they are.
Offspring	The young of an animal or plant.
Species	A group of closely related organisms that are very similar to each other.

### Natural Selection



Fossils of giraffes from millions of years ago show that they used to have shorter necks. They have gradually evolved through natural selection to have longer necks so that they can reach the top leaves on taller trees.

