

# SUBJECT: Science

## UNIT: Y7 Variation



### Key Vocabulary

#### **Adaptations**

Adaptations are characteristics which organisms have developed to best survive in their surroundings

#### **Variation**

Variation is the difference in characteristics within a species

#### **Genetic**

#### **Variation**

These are differences between individuals that are inherited from parents

#### **Environmental Variation**

These are differences between individuals that are not inherited but caused by the environment that the organism lives in.

#### **Continuous Variation**

Variation that we measure

#### **Discontinuous Variation**

Differences between individuals in a characteristic that can only be put into different groups

### Digestion and Breathing

Variation is the difference in characteristics within a species

### Variation

Some variation within a species is inherited, and some variation is due to the environment.

Variation in a characteristic that is a result of genetic information from the parents is called **inherited variation**.

Variation caused by the surroundings is called **environmental variation**.

### Genetic Variation

Variation in a characteristic that is a result of genetic information from the parents is called **inherited variation**.

Examples of genetic variation in humans include blood group, skin colour, natural eye colour and whether you have lobed or lobe less ears

### Environmental Variation

Variation caused by the surroundings is called **environmental variation**.

Characteristics of animal and plant species can be affected by factors such as climate, diet, accidents, culture and lifestyle.

### Ambitious Vocabulary

Gas exchange, diffusion, alveoli

### Continuous Variation

Characteristics which we measure e.g. height length weight. They are usually the product of both genes and the environment.

### Discontinuous Variation

Characteristics where there are just a few categories e.g. eye colour and blood group.

### Adaptations

Adaptation is a special feature or behaviour that makes an organism particularly suited to its habitat. Adaptations may be general or specific.

**General** = having legs to walk or fins to swim. **Specific** = special features so an animal can survive in its environment

### Plant Adaptations

Plants also have a wide range of adaptations. In rainforests there is a huge diversity of plants, many not yet identified by humans.

- Many trees in the rainforest have tall, thin trunks to allow them to quickly grow towards the light.
- Lots of plants have smooth trunks and stems, and drip tips to their leaves to allow water to run off without damaging the plant.
- Some trees have large buttress roots which anchor them into the ground meaning they can grow very tall.
- Other plants called epiphytes grow on the higher branches of trees and get their water and nutrients from the air, not their roots. They grow here to absorb more light for *photosynthesis*.