



LEARNING JOURNEY

Biology

3.5.3. & 3.5.4. Energy in ecosystems and cycles

Energy in ecosystems

Food chains and energy transfer

You will learn how energy is transferred between organisms in food webs and chains

Productivity

You will learn how energy transferred between trophic levels is lost, and will use formulae to quantify this.

Cycles

You will learn how nutrients are cycled within ecosystems and how saprobiotic, bacteria, consumers and producers are involved

VOCABULARY

Producer
Consumer
Saprobionts
Trophic level

Biomass
Dry biomass
Calorimetry
GPP
NPP

Ecosystems
Denitrifying
Nitrogen-fixing
Mutualistic
Mycorrhizae
Eutrophication

Use of fertilisers

You will learn the natural and artificial fertilisers are used, and the environmental concerns surrounding them.

This module builds on concepts studied in KS4 in much greater detail to understand the sequence of respiration and how energy is released using the mitochondria.

This module will build practical skills by investigating the rate of respiration of single cell cultures.