

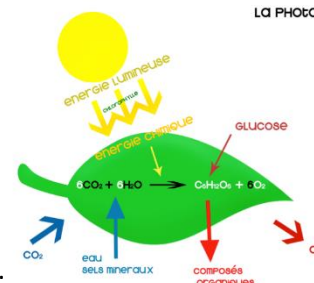
## Unit Overview – Bioenergetics

### You will learn about:

- How plants photosynthesise and what limits this process
- The process of respiration and what happens if there isn't enough oxygen.

### You will be able to:

- Measure the effects of light on pond weed



### Key Words

Chlorophyll,  
epidermal tissues,  
palisade mesophyll,  
spongy mesophyll,  
vascular bundle,  
light intensity,  
limiting factor,  
concentration gradient,  
diffusion,  
flaccid,  
guard cell,  
transpiration,  
turgid,  
xylem,  
phloem,  
aerobic respiration,  
anaerobic respiration,  
fermentation

### Key learning points

Photosynthesis

Limiting factors

Uses of glucose

Aerobic respiration

Anaerobic respiration

Response to exercise

Metabolism

### Links to other subjects:

#### SMSC

- Evaluate risk both in practical science and the wider context, including perception of risk in relation to data and consequences.
- Evaluate every day and technological applications of science.

#### Literacy

- Communicating the scientific rationale for investigations, methods used, findings and reasoned conclusions through paper-based and electronic reports and presentations using verbal, diagrammatic, graphical, numerical and symbolic forms.

#### Numeracy

- Translate information between graphical and numeric form
- Recognise and use expressions in decimal form
- Use an appropriate number of significant figures.