

# Keywords: Autumn 1

## Science

### **Topic Title: Bioenergetics**

#### **Introduction to the topic:**

**Bioenergetics is all about how different organisms (bio) get their energy (energetics).**

#### **What lessons will you cover during the topic?**

**L1 – Photosynthesis**

**L2 – Uses of glucose**

**L3 – Investigating photosynthesis in pond weed**

**L4 – Respiration**

**L5 – Exercise and Metabolism**

<b>Keyword</b>	<b>Definition</b>
<b>Aerobic</b>	<b>In the presence of oxygen</b>
<b>Anaerobic</b>	<b>In the absence of oxygen</b>
<b>Chlorophyll</b>	<b>The green chemical inside the chloroplasts of plant cells. It enables photosynthesis to take place.</b>
<b>Chloroplast</b>	<b>Contains the green pigment chlorophyll; the site of photosynthesis</b>
<b>Endothermic</b>	<b>Reaction in which energy is taken in.</b>
<b>Glucose</b>	<b>A simple sugar used by cells for respiration.</b>
<b>Limiting factor</b>	<b>A factor which, if in short supply limits or reduces the rate of photosynthesis, eg temperature, light intensity and carbon dioxide concentration.</b>
<b>Photosynthesis</b>	<b>A chemical process used by plants to make glucose and oxygen from carbon dioxide and water, using light energy. Oxygen is produced as a by-product of photosynthesis. Algae subsumed within plants and some bacteria are also photosynthetic.</b>
<b>Respiration</b>	<b>The chemical change that takes place inside living cells, which uses glucose and oxygen to release the energy that organisms need to live. Carbon dioxide is a by-product of respiration.</b>