

What is photosynthesis?

What is respiration?

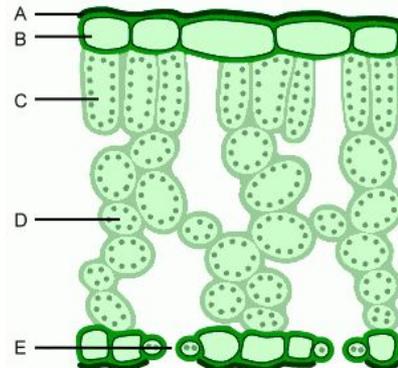
Write the equation for photosynthesis:



Write the equation for respiration:



Label the diagram below



Photosynthesis

What is the function of the:
Stomata:
Guard Cells:

Where in the plant does photosynthesis occur?

Describe how other species may help plants to reproduce.

What is another way plants can spread their genetic material?

List at least 5 minerals that plants need to survive...

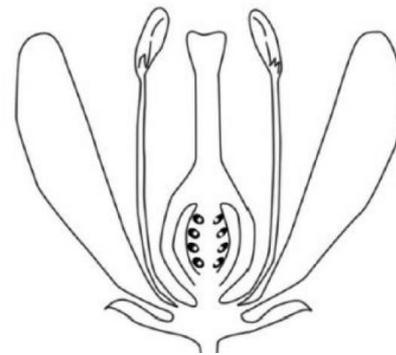
How do plants get these minerals?

What are the functions of the:
Xylem:

Phloem:

Describe how you could test a plant for starch.

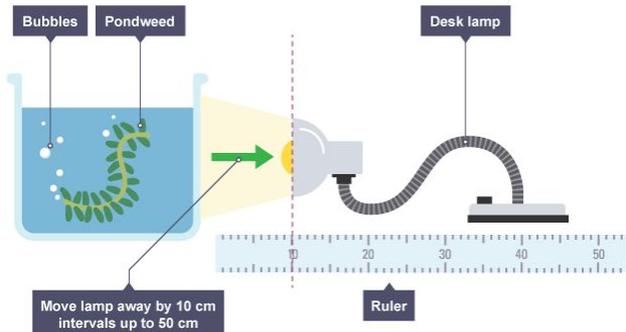
Label the diagram below:



Explain what is happening in the diagram to the left using the keywords. Key words: Photosynthesis, carbon dioxide, oxygen, light, chloroplast, pondweed.

What are the main substances plants need to survive?

In which process is glucose broken up into energy?



What is photosynthesis?

The process by which plants harness energy using sunlight, carbon dioxide and water, to create glucose and oxygen

What is respiration?

The breakdown of glucose using oxygen, to release energy to an organism. Products are water and carbon dioxide

Write the equation for photosynthesis:



Water + Carbon dioxide Chlorophyll Glucose + Oxygen

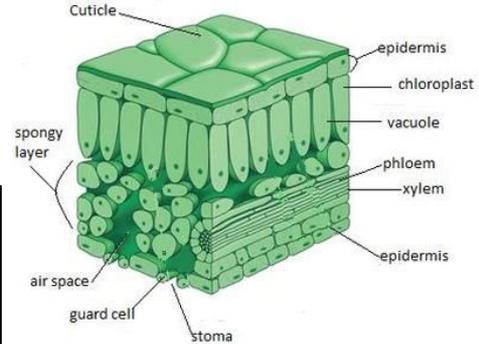
Write the equation for respiration:



Glucose + Oxygen

Water + Carbon dioxide

Label the diagram below



Photosynthesis

What is the function of the:

Stomata: Absorb CO₂

Guard Cells: Regulate stomata

Where in the plant does photosynthesis occur?

Photosynthesis occurs in the leaf of the plant. More specifically, it occurs inside the chloroplasts.

Describe how other species may help plants to reproduce.

Other species such as insects or small mammals may help plants reproduce by transferring pollen from one plant to another while collecting nectar

What is another way plants can spread their genetic material? Wind

List at least 5 minerals that plants need to survive...

Nitrogen, Potassium, Iron, Calcium, Phosphorous,

How do plants get these minerals?

Uptake from the soil by the roots

What are the functions of the:

Xylem: Transporting water from roots to leaves

Phloem: Transporting dissolved sugars from leaves to the rest of the plant

Describe how you could test a plant for starch.

You could boil a leaf in water and then heat in a test tube of ethanol to remove the chlorophyll. Then drop some iodine on the leaf. If the leaf contains starch it will become a dark purple/black colour

What are the main substances plants need to survive?

Carbon Dioxide

Water

Minerals

Nutrients

Sunlight

In which process is glucose broken down to release energy?

Respiration

Explain what is happening in the diagram to the left using the keywords. Key words:

Photosynthesis, carbon dioxide, oxygen, light, chloroplast, pondweed.

Photosynthesis and the production of oxygen bubbles was observed during this practical.

We moved the lamp further away each time, while counting the oxygen bubbles. The plant was using carbon dioxide and water to create glucose and oxygen in the presence of light. The rate of photosynthesis decreased as we moved the light further away.

Label the diagram below:

