

0 1 . 1

Complete the following equation for photosynthesis.

Carbon dioxide + Water → Glucose + oxygen. [1 mark]

0 1 . 2

Describe the route by which the carbon dioxide and water enter the leaf for a plant living on land.

Carbon dioxide **from the air [1]; through stomata [1]**

Water **from the soil/roots[1]; through the xylem/vascular bundles [1]**

TOP TIP : Plants in water get their CO₂ through the leaves from the water. Algae don't need vascular tissue because they are so tiny

[4 marks]

0 1 . 3

Plant leaves have palisade cells. Palisade cells contain special structures called chloroplasts. Explain how chloroplasts assist with the process of photosynthesis.

(contain chlorophyll) to absorb light/sunlight or light energy [1]

to produce glucose or sugar [1]

TOP TIP : the energy is used to convert carbon dioxide from the air and water from the soil into sugar/glucose

[2 marks]

0 1 . 4

Glucose is a product of photosynthesis. Give 3 uses of glucose by plants.

1. **any 3 from: respiration [1]; produce starch [1]; produce protein [1]**

2. **produce cellulose/cell walls [1]; produce fats/oils [1]**

3. _____

[3 marks]