Photosynthesis (equation, factors, uses of glucose)

Q1. (2018)

0 2 This question is about photosynthesis.

0 2 . 1 What are the **two** products of photosynthesis?

[2 marks]

Tick **two** boxes.

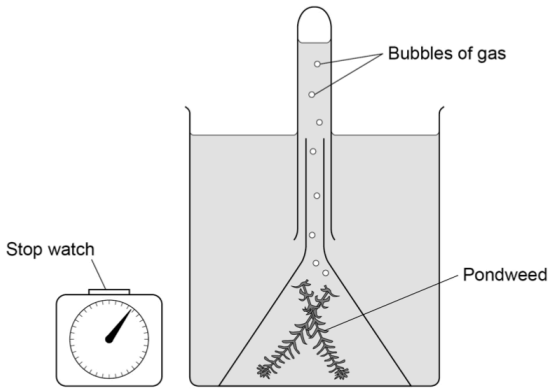
- Carbon dioxide ☐
- Chlorophyll ☐
- Glucose ☐
- Oxygen ☐
- Water ☐

Q2. (2019)

0 1 A student investigated the effect of light intensity on the rate of photosynthesis.

Figure 1 shows some of the apparatus used.

Figure 1



0 1 . 1 Name the gas produced by the pondweed in the light.

[1 mark]

Q3. (2021)

0 4 . 4 Give **one** use of sugars in a plant.

[1 mark]

Q4. (2021)

0 5 . 1 Which is the equation for photosynthesis?

[1 mark]

Tick (✓) **one** box.

$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$ ☐

$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$ ☐

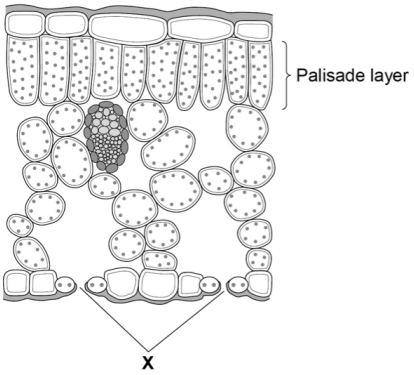
$6H_2O + 6O_2 \rightarrow C_6H_{12}O_6 + 6CO_2$ ☐

$6O_2 + 6CO_2 \rightarrow C_6H_{12}O_6 + 6H_2O$ ☐

Q5. (2022)

0 2 **Figure 2** shows a section through a leaf.

Figure 2



0 2 . 1 Give **one** way that the palisade layer is adapted for photosynthesis.

[1 mark]

Q6. (2024)

0 5 . 1 Complete the equation for photosynthesis.

Choose answers from the box.

[2 marks]

nitrogen	**oxygen**	**ethanol**	**water**

carbon dioxide + _____ $\xrightarrow{\text{light}}$ glucose + _____

Q7. (2024)

0 5 . 2 What is the chemical formula for glucose?

[1 mark]

Tick (✓) **one** box.

CO_2 ☐ $C_6H_{12}O_6$ ☐ H_2O ☐ O_2 ☐

Q8. (2024)

0 5 . 3 Give **two** ways plants use the glucose produced by photosynthesis.

[2 marks]

1 _____

2 _____

Q9. (2024)

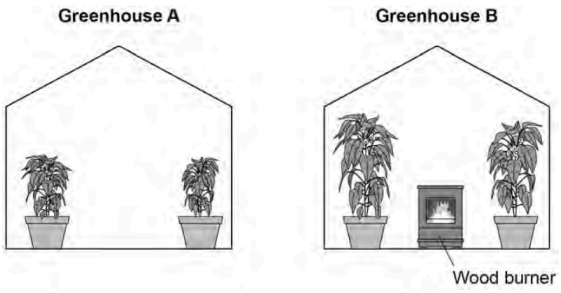
0 5 . 4 A person has two greenhouses.

In each greenhouse, the plants:

- are all the same type
- receive the same intensity of light and the same volume of water
- grow in the same type of soil.

Figure 7 shows the greenhouses.

Figure 7



The person burns logs in the wood burner in greenhouse **B**.

Explain why the plants in greenhouse **B** grow faster than the plants in greenhouse **A**.

[4 marks]