
26. PHOTOSYTHESIS AND RESPITARATORY TEST 2
MEMORANDUM:

QUESTION 1:

- 1.1. $CO_2✓ + H_2O✓ \rightarrow C_2H_{12}✓ + O_2✓$ (or carbon dioxide + water $\rightarrow$ glucose + oxygen
in the presence of chlorophyll✓ and sunlight✓) (6)
- 1.2. $O_2✓ + C_2H_{12}✓ \rightarrow H_2O✓ + CO_2✓$ in the absence of sunlight energy.
(Or in words – oxygen + sugar (starch) $\rightarrow$ ✓ Energy + carbon dioxide +
water. ✓) (6)

QUESTION 2:

- 2.1. Photosynthesis is the process by which a green plant, with chlorophyll, uses carbon dioxide and water to produce sugar and releases oxygen as a byproduct. (4)
- 2.2. Respiration is the process by which sugar is broken down in the presence of oxygen to produce energy with water and carbon dioxide as byproducts. (4)

QUESTION 3:

- 3.1 Dark purple-blue. (1)
- 3.2 Clear limewater (2)
- 3.3 A burning wood splinter will ignite in the presence of oxygen. (2)