

## OBHS Core Questions:

Subject: Science

Year and Term: Year 8 Autumn Term

Topic: 8B1 Respiration and Photosynthesis



Learn these questions to build a strong foundation of knowledge for this half-term. Ask family or friends to test you regularly, or practise on your own using the 'Look, Say, Cover, Write' method.

| Question  | Answer  |
|---|---|
| 1. What is respiration?   | Respiration is the process by which energy is released from glucose.  |
| 2. What is the word equation for aerobic respiration?                         | Glucose + Oxygen → Carbon Dioxide + Water   |
| 3. How does anaerobic respiration differ from aerobic respiration?            | Anaerobic respiration does not use oxygen and releases less energy. It also produces lactic acid instead of carbon dioxide and water. |
| 4. What happens to the rate of respiration when you exercise?                 | Increases   |
| 5. Where in the cell does aerobic respiration take place?                     | Mitochondria  |
| 6. Where in the cell does anaerobic respiration take place?                   | Cytoplasm   |
| 7. Fermentation is an example of which kind of respiration?                   | Anaerobic respiration   |
| 8. Which kinds of respiration can humans do?                                  | Aerobic and anaerobic respiration   |
| 9. Which kind of respiration is done by microorganisms such as yeast?         | Anaerobic respiration (fermentation)  |
| 10. Anaerobic respiration in humans makes which product?                      | Lactic acid   |
| 11. Anaerobic respiration in microorganisms makes which products?             | Carbon dioxide and Ethanol  |
| 12. Ethanol made in fermentation is useful for the production of which drink? | Beer  |
| 13. When lactic acid builds up in the muscles, what does it cause?            | Cramp   |
| 14. What is the word equation for anaerobic respiration in humans?            | Glucose → Lactic acid   |
| 15. Where do humans get their oxygen from?                                    | The air they breathe in   |
| 16. Where do humans get their glucose from?                                   | Food  |
| 17. How do humans get rid of carbon dioxide produced in aerobic respiration?  | Breathe it out (exhale)   |
| 18. How do humans get rid of water produced in aerobic respiration?           | Sweating, urinating, breathing out  |

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| 19. Which type of respiration is the fastest?  | Anaerobic respiration  |
| 20. What is photosynthesis?  | Photosynthesis how plants make their own food using sunlight, carbon dioxide, and water. |
| 21. Where does photosynthesis take place in the cell?  | Chloroplasts   |
| 22. Why can't plants photosynthesise at night?   | Lack of sunlight   |
| 23. What is the word equation for photosynthesis?  | Carbon Dioxide + Water → Glucose + Oxygen.   |
| 24. What are the conditions needed for photosynthesis to take place?   | Light, carbon dioxide, water, and chlorophyll  |
| 25. Where in the plant does the most photosynthesis happen?  | Leaves   |
| 26. How do light intensity, carbon dioxide concentration, and temperature affect the rate of photosynthesis? | Increasing these factors increases the rate of photosynthesis up to a certain point.     |