

B9 - Respiration	Answer
1. What do we call respiration that uses oxygen	Aerobic
2. What do we call respiration that does not use oxygen	Anaerobic
3. Why do organisms need energy	To build larger molecules, for movement and to keep warm
4. Give the word equation for aerobic respiration	Glucose+oxygen → carbon dioxide + water
5. HT : Give the symbol equation for aerobic respiration	$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$
6. Give the word equation for anaerobic respiration in muscles	Glucose → lactic acid
7. Give the word equation for anaerobic respiration in yeast and plant cells	Glucose → ethanol + carbon dioxide
8. HT: Give the symbol equation also	$C_6H_{12}O_6 \rightarrow 2C_2H_5OH + 2CO_2$
9. What is anaerobic respiration in yeast called?	Fermentation
10. In the economy, what is fermentation responsible for manufacturing	Bread and alcoholic drinks
11. When we exercise the need for energy increases. What other body changes happen at the same time	Heart rate increases Breathing rate increases Breathing volume increases
12. What may cause muscle fatigue in exercise	Lactic acid build up
13. What is an oxygen debt	It is when insufficient oxygen is used to break down glucose in anaerobic respiration. The debt has to be repaid after exercise stops
14. Physiologically what happens in an oxygen debt	The person will breathe deeply to repay the debt
15. HT: How is lactic acid removed	Oxygen combines with it and then is transported to the liver where it is converted back to glucose
16. What is metabolism	All the reactions in a cell or body
17. Name the reactions that it includes	<ul style="list-style-type: none"> • Converting glucose to starch , glycogen and cellulose • Forming lipids from fatty acid and glycerol • Forming amino acids and protein • Respiration • Removal of excess protein and turning it into urea