

CIE Biology GCSE

12 - Respiration

Flashcards



Give 7 uses of energy in the body



Give 7 uses of energy in the body

- Protein synthesis
- Muscle contraction
- Cell division
- Active transport
- Growth
- Nervous transmission
- Maintaining a constant internal environment



What is respiration?



What is respiration?

A series of reactions that use enzymes to obtain energy in the form of ATP from larger molecules (e.g. glucose)



Define aerobic respiration



Define aerobic respiration

Chemical reactions in cells that use oxygen to break down molecules to release energy



What is the word equation for aerobic respiration?



What is the word equation for aerobic respiration?

Glucose + Oxygen → Carbon dioxide + Water (+ energy)



What is the symbol equation for aerobic
respiration?
(Higher/Supplement)



What is the symbol equation for aerobic respiration?
(Higher/Supplement)



Define anaerobic respiration



Define anaerobic respiration

Chemical reactions in cells that break down nutrient molecules to release energy without using oxygen



Write the word equation for anaerobic respiration in muscle cells



Write the word equation for anaerobic respiration in muscle cells

glucose \rightarrow lactic acid + energy



Write the word equation for anaerobic respiration in yeast



Write the word equation for anaerobic respiration in yeast?

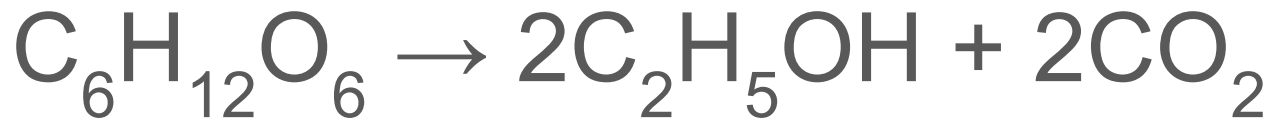
glucose \rightarrow alcohol + carbon dioxide +
energy



Write the balanced symbol equation for
anaerobic respiration in yeast
(Higher/Supplement)



Write the balanced symbol equation for anaerobic respiration in yeast (**Higher/Supplement**)



Which type of respiration produces more energy?



Which type of respiration produces more energy?

Aerobic respiration produces more energy



What builds up in muscles during periods
of vigorous exercise?
(Higher/Supplement)



What builds up in muscles during periods of vigorous exercise? (Higher/Supplement)

Lactic acid



How is lactic acid removed from the body?

(Higher/Supplement)



How is lactic acid removed from the body?
(Higher/Supplement)

Through aerobic respiration in the liver



What happens to the heart and breathing rate immediately after exercise?
(Higher/Supplement)



What happens to the heart and breathing rate immediately after exercise? (Higher/Supplement)

They both remain high to increase the rate of aerobic respiration to remove the lactic acid in the liver

