

OCR (A) Biology GCSE

B1.3 - Respiration

Flashcards

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What is the purpose of respiration?



What is the purpose of respiration?

To produce energy in the form of ATP
from larger molecules (like sugars)



What type of reaction is respiration?



What type of reaction is respiration?

Respiration is an exothermic reaction



When does aerobic respiration take place?



When does aerobic respiration take place?

When there is plenty of oxygen available



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?



What is the symbol equation for aerobic respiration?



When does anaerobic respiration take place?



When does anaerobic respiration take place?

When there is no oxygen available



What does anaerobic respiration in animals produce?



What does anaerobic respiration in animals produce?

Lactic acid and energy



What does anaerobic respiration in yeast produce?



What does anaerobic respiration in yeast produce?

Ethanol (alcohol), carbon dioxide and energy



Which type of respiration produces more ATP?



Which type of respiration produces more ATP?

Aerobic respiration which produces 36 ATP compared to anaerobic respiration which produces only 2 ATP



What is the oxygen debt?



What is the oxygen debt?

The extra oxygen that is needed to break down the lactic acid formed in anaerobic respiration



What type of molecules are carbohydrates and proteins?



What type of molecules are carbohydrates and proteins?

They are polymers



What are the monomers that make up proteins?



What are the monomers that make up proteins?

Amino acids



What type of enzymes break down carbohydrates?



What type of enzymes break down carbohydrates?

Carbohydrases



What type of enzymes break down proteins?



What type of enzymes break down proteins?

Proteases



What type of enzymes break down lipids and what are they broken down into?



What type of enzymes break down lipids and what are they broken down into?

Lipids are broken down by lipases into glycerol and fatty acids

