

Cellular Respiration (KS3)

Section A – Recall (1–2 marks each)

Q1 (1 mark)

What is respiration?

Q2 (1 mark)

Where does aerobic respiration take place in cells?

Q3 (1 mark)

What is the main purpose of respiration?

Q4 (1 mark)

Name the gas used in aerobic respiration.

Q5 (2 marks)

State TWO products of aerobic respiration.

Q6 (2 marks)

State TWO types of organism that carry out respiration.

Q7 (2 marks)

State TWO situations where anaerobic respiration occurs in humans.

Section B – Understanding (2–3 marks each)

Q8 (3 marks)

Write the word equation for aerobic respiration.

Q9 (3 marks)

Explain why respiration is essential for life.

Q10 (3 marks)

Explain why anaerobic respiration occurs in humans and what happens.

Q11 (3 marks)

Explain what fermentation is in microorganisms.

Section C – Application (4 marks each)

Q12 (4 marks)

A student at *Learntit* is exercising and their muscles begin to ache. Explain why this happens in terms of respiration.

Q13 (4 marks)

Explain how respiration provides energy for other chemical processes in the body. Include examples of these processes.

Q14 (4 marks)

Explain how anaerobic respiration in microorganisms is used in the production of bread and alcoholic drinks.

Section D – Extended Response (6 marks each)

Q15 (6 marks)

Compare anaerobic respiration in humans and microorganisms, including word equations. Does anaerobic release more or less energy than aerobic respiration?

Q16 (6 marks)

Compare aerobic and anaerobic respiration in terms of reactants, products, and effects on the organism.

Total: ____ / 46
Percentage: ____%