DoodleBeez Worksheets

Grade 8 | Science

Name: Date: Score: / 8

Cellular Respiration: Learn and Practice

How cells release energy from food

Read each question. Circle the best answer.

💡 Cellular Respiration

- Cells break down sugar using oxygen to release energy.
- Carbon dioxide and water are given off as wastes.
- This happens in the mitochondria of both plant and animal cells.
- sugar with oxygen: energy, carbon dioxide and water

1 ⚡ Which organelle carries out most of cellular respiration?

A. Mitochondrion B. Cell wall C. Chloroplast D. Vacuole

2 Which gas is given off as a waste of cellular respiration?

A. Hydrogen B. Oxygen C. Nitrogen D. Carbon dioxide

3 How are photosynthesis and cellular respiration related?

A. They are exactly the same

B. Neither involves gases

C. Both happen only in animals

D. Each uses what the other makes

4 Which food molecule do cells mainly break down for energy?

A. Calcium B. Glucose, a sugar C. Water D. Salt

5 🏃 Why do you breathe faster during exercise?

A. To take in more nitrogen B. To stop digestion

C. To cool your brain

D. Muscles need more oxygen for energy

6 Which gas do cells use in cellular respiration?

A. Neon B. Carbon dioxide C. Helium D. Oxygen

7 What is the main purpose of cellular respiration?

A. To build bones B. To release energy from food C. To make sugar from light D. To pump blood

8 🌱 Do plants carry out cellular respiration?

A. Only in winter B. Only in sunlight C. No, only animals do D. Yes, all day and night

✏️ Explain it! Write two facts you learned about cellular respiration.

ANSWER KEY

Cellular Respiration: Learn and Practice (answers)

How cells release energy from food

Read each question. Circle the best answer.

1 ⚡ Which organelle carries out most of cellular respiration?

A. Mitochondrion B. Cell wall C. Chloroplast D. Vacuole

Mitochondria are where sugar and oxygen react to release energy.

2 Which gas is given off as a waste of cellular respiration?

A. Hydrogen B. Oxygen C. Nitrogen **D. Carbon dioxide**

Carbon dioxide is made when sugar is broken down. You breathe it out.

3 How are photosynthesis and cellular respiration related?

A. They are exactly the same

B. Neither involves gases

C. Both happen only in animals

D. Each uses what the other makes

Photosynthesis makes sugar and oxygen, and respiration uses them, making carbon dioxide and water.

4 Which food molecule do cells mainly break down for energy?

A. Calcium **B. Glucose, a sugar** C. Water D. Salt

Glucose is a sugar that cells use as their main fuel.

5 🏃 Why do you breathe faster during exercise?

A. To take in more nitrogen B. To stop digestion

C. To cool your brain

D. Muscles need more oxygen for energy

Working muscles respire faster, so they need more oxygen and make more carbon dioxide.

6 Which gas do cells use in cellular respiration?

A. Neon B. Carbon dioxide C. Helium **D. Oxygen**

Cells use oxygen to break down sugar. That is why you need to breathe.

7 What is the main purpose of cellular respiration?

A. To build bones

B. To release energy from food

C. To make sugar from light D. To pump blood

Cellular respiration unlocks the energy stored in food so cells can use it.

8 🌱 Do plants carry out cellular respiration?

A. Only in winter B. Only in sunlight

C. No, only animals do **D. Yes, all day and night**

Plants make sugar by photosynthesis, but they respire all the time to release its energy.