



# Photosynthesis & Respiration

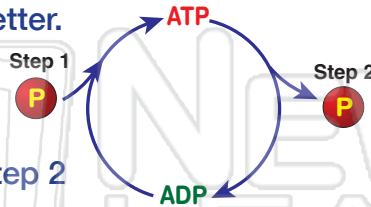
H.S. Bio

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

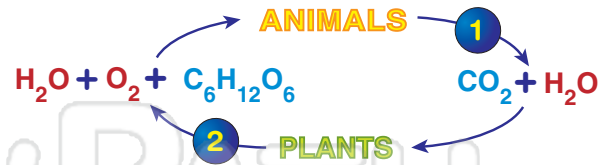
1 The diagram below represents part of the process of **cellular respiration**. **Energy is released** and made available for **metabolic activities** at \_\_\_\_\_.

Circle the answer letter.

- a. step 1, only
- b. step 2, only
- c. both step 1 & step 2



6 In the cycle shown, which **processes** are represented by **numbers 1 and 2**?



- a. 1-photosynthesis, 2-transpiration
- b. 1-respiration, 2-photosynthesis
- c. 1-transpiration, 2-excretion

2 **Cellular respiration** is best described as a process by which \_\_\_\_\_.

- a. necessary nutrients are circulated

7 Circle the **raw material**, represented by **X**, needed for **stage 1** reaction to occur.

- 3
- 1. glucose
- 2. 2 pyruvic acid



## PREVIEW

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- 4

- 1.  $\text{glucose} + 2 \text{ ATP} \rightarrow 2 \text{ pyruvic acid} + 4 \text{ ATP}$
- 2.  $2 \text{ pyruvic acid} + \text{oxygen} \rightarrow \text{carbon dioxide} + \text{water} + 34 \text{ ATP}$
- # ATP molecules = \_\_\_\_\_

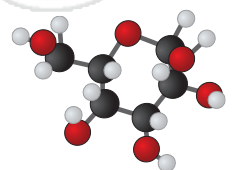
- reactions of photosynthesis?
- a. water molecules are split
- b. carbon dioxide reacts with hydrogen
- c. oxygen combines with carbon dioxide

5 All **chemical breakdown processes** in cells directly **involve** \_\_\_\_\_.

- a. reactions controlled by catalysts
- b. enzymes stored in mitochondria
- c. the production of catalysts

10 Which process is directly used by **autotrophs** to **store energy in glucose**?

- a. respiration
- b. photosynthesis
- c. active transport





# Photosynthesis & Respiration - Answer Key

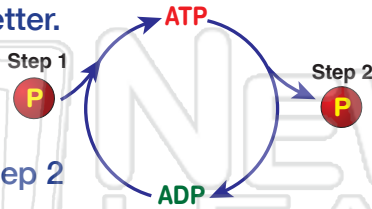
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Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

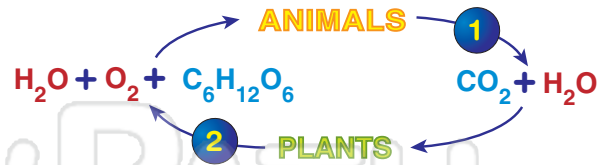
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3 F  
In  
o

- 1. gl
- 2. 2 p
- ca

4 V  
a

- 1. **glucose + 2 ATP → 2 pyruvic acid + 4 ATP**
- 2. **2 pyruvic acid + oxygen → carbon dioxide + water + 34 ATP**
- # ATP molecules = 36

- reactions of photosynthesis?
- a. water molecules are split
- b. carbon dioxide reacts with hydrogen
- c. oxygen combines with carbon dioxide

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