

Cellular Energy

Section 3 Cellular Respiration

Main Idea _____ **Details** _____

Scan the headings, illustrations, and captions in Section 3 of the chapter. Write three facts that you discover about cellular respiration.

1. _____
2. _____
3. _____

Review Vocabulary

cyanobacterium

Use your book or dictionary to define cyanobacterium.

New Vocabulary

Read the definitions below and write the correct vocabulary term in the blank.

- _____ metabolic process that does not require oxygen
- _____ in cellular respiration, a series of anaerobic chemical reactions in the cytoplasm that break down glucose into pyruvic acid; forms a net profit of two ATP molecules
- _____ metabolic processes that require oxygen
- _____ in cellular respiration, a cycle of chemical reactions that break down glucose and produce ATP; energizes electron carriers that pass the energized electrons on to the electron transport chain
- _____ a series of anaerobic reactions in the cytoplasm that regenerate NAD^+ for glycolysis and produce ATP; supplies energy for aerobic organisms when oxygen is low
- _____ in cellular respiration, the processes that take place in the mitochondrion and require oxygen; includes the Krebs cycle and electron transport

Section 3 Cellular Respiration (continued)

Main Idea

Details

Overview of Cellular Respiration

I found this information on page _____.

Rephrase *the function of cellular respiration in your own words. Write the equation that describes it.*

Function:

Equation:

Glycolysis, Krebs Cycle, and Electron Transport

I found this information on page _____.

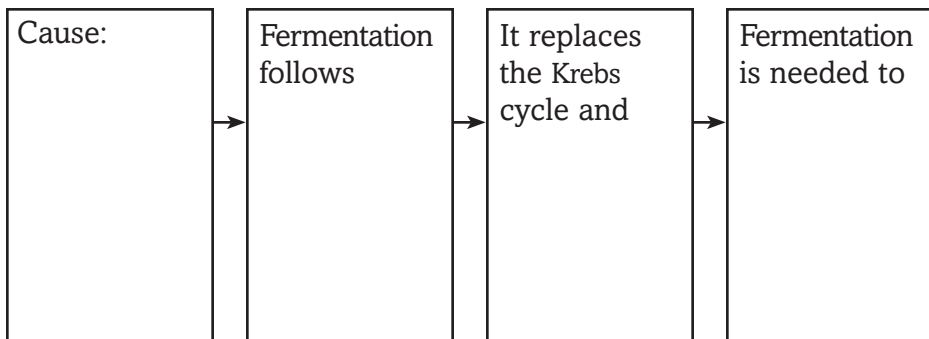
Compare and summarize *the three stages of cellular respiration.*

Glycolysis	Krebs Cycle	Electron Transport
	a series of chemical reactions that break down pyruvate from glycolysis	
takes place in	takes place in	takes place in
produces two ATP molecules for every glucose molecule that is broken down	produces	provides energy for ATP production final electron acceptor is

Anaerobic Respiration

I found this information on page _____.

Sequence *events that lead to fermentation in aerobic organisms.*



Section 3 Cellular Respiration (continued)

Main Idea

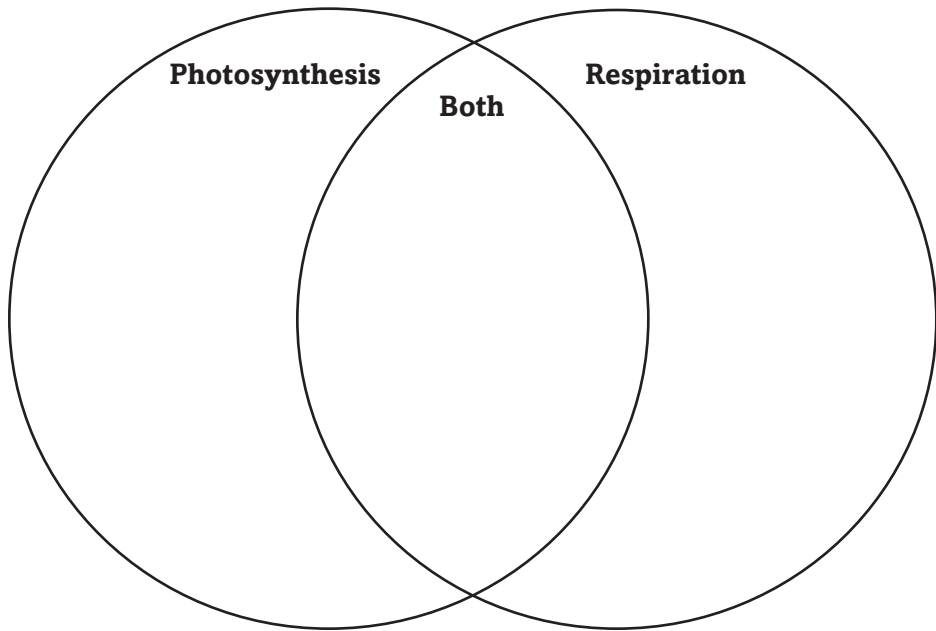
Details

Summarize a process of fermentation that is useful to humans.

**Photosynthesis
and Cellular
Respiration**

I found this information
on page _____.

Compare photosynthesis and respiration in a Venn diagram.



SUMMARIZE

Create a graphic organizer to compare aerobic and anaerobic processes.