| Name | Date |
|------|------|
| | |

Cellular Energy

Before You Read

Before you read the chapter, respond to these statements.

- 1. Write an **A** if you agree with the statement.
- **2.** Write a **D** if you disagree with the statement.

| Before You Read | Cellular Energy | After You Read |
|-----------------|---|----------------|
| | Energy can be transformed, but it cannot be created or destroyed. | |
| | ATP is a molecule used by cells to store energy. | |
| | Photosynthesis takes place inside the chloroplasts. | |
| | Cellular respiration occurs in two stages: glycolysis and the Calvin cycle. | |

| - • | |
|---------|---------|
| Science | lournal |

| How does energy get to cells? How do cells use energy? Write your own ideas. | | | | |
|--|--|--|--|--|
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Cellular Energy

Section 1 How Organisms Obtain Energy

| Main I | dea |
|--------|-----|
|--------|-----|

Details

Scan Section 1 of the chapter and make a list of three general ways in which cells use energy.

- 1. _____
- 2. _____
- 3. _____

Review Vocabulary

Use your book or dictionary to define trophic level.

trophic level

New——' Vocabulary

Use your book or dictionary to define each vocabulary term.

energy

thermodynamics

metabolism

photosynthesis

cellular respiration

adenosine triphosphate

Section 1 How Organisms Obtain Energy (continued)

←Main Idea →

⊘Details

Transformation of Energy

I found this information on page ______.

| Organize | at least | seven c | of your | body's | cell | processes | that | require |
|----------|----------|---------|---------|--------|------|-----------|------|---------|
| energy. | | | | | | | | |

| Energy in Cell Processes | |
|-----------------------------|--|
| | |
| | |
| | |

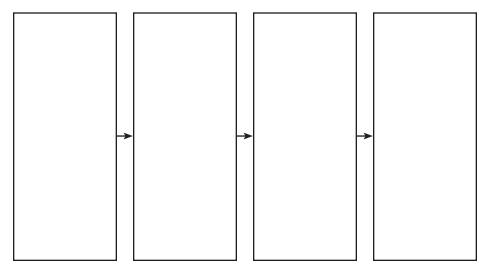
Metabolism

I found this information on page ______.

Compare the laws about how energy flows. Give an example of each.

| | First Law of Thermodynamics | Second Law of Thermodynamics |
|---------|--------------------------------|---------------------------------|
| Defined | | |
| Example | | |

Sequence the flow of energy from the Sun to heterotrophs.

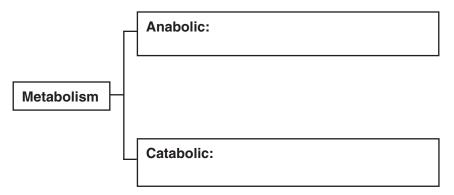


Section 1 How Organisms Obtain Energy (continued)

(Main Idea)

⊘Details

Compare and contrast catabolic and anabolic pathways by writing characteristics of each in the chart below.



ATP: The Unit of Cellular Energy

I found this information on page ______.

Summarize ATP and ADP.

ATP

Explain how your body uses ATP, and list the three parts of the molecule.

ADP

Explain how ADP is made from ATP.

SUMMARIZE

Design a concept map to show the three most important ideas $% \left(1\right) =\left(1\right) \left(1\right)$

from this section.