

Chemistry in Biology

Section 2 Chemical Reactions

Main Idea _____

Details _____

Skim Section 2 of the chapter. Write two facts that you discovered as you read the headings and illustration captions.

1. _____
2. _____

Review Vocabulary

Use your book or dictionary to define process.

process

New Vocabulary

Use your book or dictionary to define each term.

chemical reaction

reactant

product

activation energy

catalyst

enzyme

substrate

active site

Academic Vocabulary

Define coefficient to show its scientific meaning.

coefficient

Section 2 Chemical Reactions (continued)

Main Idea

Details

Reactants and Products

I found this information on page _____.

Label the sides of the following equation as either products or reactants.



Calculate the number of atoms of each element in the chemical equation above. Record the information in the table below.

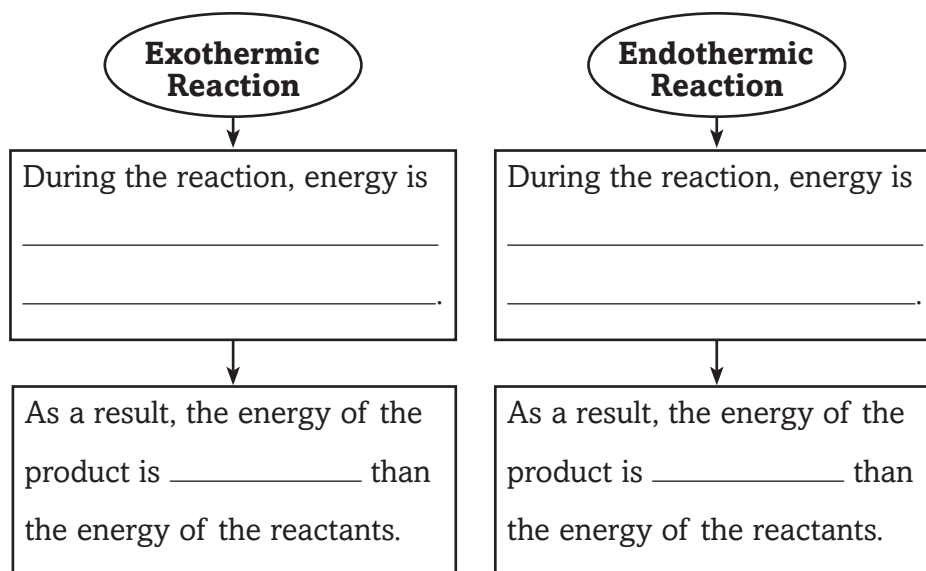
Element Symbol	Element Name	Number of Atoms (reactant side)	Number of Atoms (product side)

Analyze the formula to check to see if it is balanced. Support your reasons.

Energy of Reactions

I found this information on page _____.

Compare what happens to energy in exothermic and endothermic reactions by completing the diagram below.



Section 2 Chemical Reactions (continued)

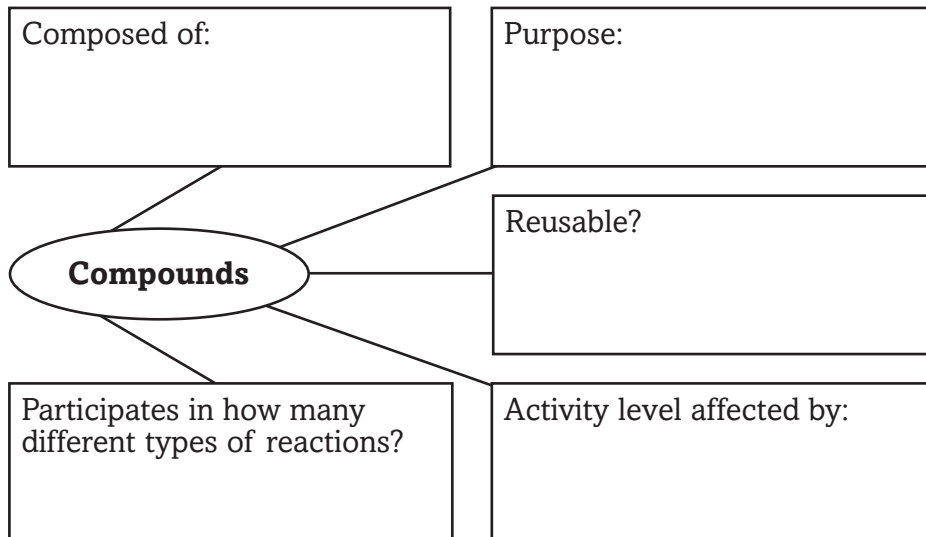
Main Idea _____

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Enzymes

I found this information on page _____.

Summarize *key characteristics of an enzyme by completing the organizer below.*



Analyze *how an enzyme works by completing the following paragraph.*

For a substrate to bind with a particular enzyme, the _____ and _____ of the substrate must match that of the enzyme's _____. In the enzyme-substrate complex, chemical bonds in the _____ are broken and _____ form. The results of the interaction between an enzyme and its _____ are products, which are released by the _____.

SUMMARIZE

Analyze the role of catalysts in chemical reactions.
