20 Oxidation-Reduction Reactions

Big idea RE

REACTIONS

20.1 The Meaning of Oxidation and Reduction



Essential Understanding Oxidation and reduction are opposite chemical processes during which electrons are shifted between reactants.



Reading Strategy

Compare and Confrast Organizing information in a table helps you compare and contrast several topics at one time. Consider comparing and contrasting oxidation and reduction and how they relate to oxygen and electrons. As you read, ask yourself, "How are they similar? How are they different?"

As you read Lesson 20.1, use the compare and contrast table below. Complete the table, comparing how axidation and reduction relate to electrons and oxygen.

Oxidation and Reduction		
	Compare	Contrast
Oxygen	If oxygen is involved in the process, a change occurs in the number of oxygen atoms.	During exidation, a substance gains exygen. During reduction a substance loses exygen.
Electrons	A change occurs in the number of electrons.	During oxidation, a substance loses one or more electrons. During reduction, a substance gains one or more electrons.

EXTENSION Use the information about electrons in the chart to explain why oxidation and reduction always occur together.

When electrons are quined by one substance, the electrons must come from another substance, which loses the electrons.

Study Guide Redox Reaction Answers

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