

Name: _____

Period: _____

Elements & Compounds

Chapter 3 sections 1&2

Elements. The simplest Substance

- Element: _____

- Pure Substance: A substance (either an _____ or a single _____) in which there is only one type of particle
 - Each element contains only one type of particle (_____)

Properties of Elements

- Each element has its own _____ properties that will help identify the element.
- Physical properties
 - _____
 - _____
 - _____
- Chemical properties
 - _____
 - _____
- Elements may share similar properties, but have other properties that will identify the substance.

Classifying Elements by their Properties

- Categories of Elements:

Metals (Most Elements)	Nonmetals	Metalloids
Examples:	Examples:	Examples:

Compounds

Chapter 3 Section 2

Compound: _____

- Combine by _____ or undergoing a _____ change
- Made up of _____
- Formed when atoms of 2 or more _____ join
- Elements join in a specific ratio according to their _____ to form a compound
- A _____ of a certain compound is always the same.
- Hydrogen to oxygen 1:8 to form water.

Properties of Compounds

- May be identified by both _____ and _____ properties.
 - Properties of compounds are different than the _____ that form them
- Ex: Sodium Chloride (Table Salt)
- _____ reacts violently with water
 - _____ is a poisonous gas

Breaking Down Compounds

- Some compounds may be broken down into _____ by chemical change.
- Some break down into simpler _____.
- Carbonic Acid breaks down into carbon dioxide and water.

Break down through chemical change

- Need energy
 - _____
 - Electric current (_____)

Compounds in Your World

- _____
- _____
- _____

Compounds in Industry

- Compounds found in nature usually need to be broken down for use in industry.
- Aluminum (not found as aluminum in nature) – produced by breaking down aluminum oxide
- Ammonia - _____ + _____

Compounds in Nature

- _____ are compounds found in living things
- Need the element _____ to make _____
- Carbon Dioxide is needed by _____ to produce _____
 - Produce _____ for plants and animals