

Compounds

Compound – A pure substance composed of two or more elements that are chemically combined.

- **The particles of compounds are formed when atoms of two or more elements join together.**
- **When atoms join together, we say they *react*.**

- **Elements join together to form compounds in specific ratios according to their masses.**
Ex: The ratio of hydrogen to oxygen in water is always 1g hydrogen and 8g oxygen, or 1:8. All water has this ratio. If something does not have this ratio, it's not water.

- **Each compound has a unique set of characteristic properties that allows you to distinguish it from other compounds. These properties can be either physical or chemical.**

- **Compounds have different properties than the elements that form them.**
Ex: Table salt is made from the elements sodium (highly reactive with water) and chlorine (poisonous gas).

- **Some compounds can be broken down into elements through chemical changes.**
Ex: When mercury oxide is heated it breaks down into the elements mercury and oxygen.

- **Other compounds are broken down into simpler compounds through chemical changes.**
Ex: Carbonic acid is broken down into the compounds carbon dioxide and water.

- **Compounds cannot be broken down into elements by physical changes.**

- **Compounds are all around us.**