

Vocabulary: Introduction to Matter, Part 1



Vocabulary

- physical science:** The study of matter and energy.
- chemistry:** The study of the properties of matter and how matter changes.
- matter:** Anything that has mass and takes up space.
- Every form of matter has two kinds of properties—physical properties and chemical properties.
- physical property:** A characteristic of a pure substance that can be observed without changing it into another substance.
- chemical property:** A characteristic of a pure substance that describes its ability to change into different substances.
- substance:** A single kind of matter that is pure and has a specific set of properties.
- element:** A pure substance that cannot be broken down into any other substances by chemical or physical means.
- Elements are the simplest substances.
 - Different elements have different properties because their atoms are different.
- atom:** The basic particle from which all elements are made.
- chemical bond:** A force of attraction between two atoms that is formed when they combine. It is the force that holds two atoms together.
- molecule:** A group of two or more atoms held together by chemical bonds
- compound:** A pure substance made of two or more elements chemically combined in a set ratio.
- A compound may be represented by a **chemical formula**, which shows the elements in the compound and the ratio of atoms.
 - When elements are chemically combined, they form compounds having properties that are different from those of the uncombined elements.
- mixture:** Two or more substances that are mixed together but not chemically combined.
- A mixture can be heterogeneous or homogeneous:
 - In a heterogeneous mixture, you can see the different parts.
 - The substances in a homogeneous mixture are so evenly mixed that you cannot see the different parts. A solution is an example of a homogeneous mixture.