

## DEFINITIONS

**MATTER:** a sample of matter is a large collection of very small particles. There are three kinds of particles: atoms, ions, and molecules. The two kinds of matter are pure substances and mixtures.

**PURE SUBSTANCE:** A pure substance is a sample of matter (a very large collection of very small particles) in which the particles are all alike. The pure substances are the elements and the compounds.

**ELEMENT:** An element is one type of pure substance. An element may be composed of atoms or of molecules.

**COMPOUND:** A compound is one type of pure substance. A compound may be made of molecules or ions.

**PARTICLES:** The particles of which matter is made are atoms, molecules and ions.

**ATOM:**

**MOLECULE:** A molecule is a single particle that is composed of two or more neutral nonmetal atoms that are held together by covalent bonds.

**ION:** An ion is a particle that has electrical charge. The charge is either positive or negative. An ion may be either monatomic or polyatomic.

**MONATOMIC ION:** A monatomic ion is an atom that has electrical charge, either positive or negative.

**POLYATOMIC ION:** A polyatomic ion is a molecule that has electrical charge, either positive or negative.

**MIXTURE:** A mixture is a sample of matter in which the particles are not all alike.