

## Atomic Theory and Law

### Law of conservation

The law of conservation states that: The total mass will remain constant during a chemical reaction.

### Law of conservation of energy

The law of conservation of energy states that: Energy can neither be created nor destroyed. The total energy in nature is consistent.

### Law of definite proportions

All samples of a compound have the same proportions by mass of the elements present.

### Law of multiple proportions

Taking 2 different compound make-ups of the same 2 elements. The mass-ratio of compound "A" is a multiple of the mass ratio of compound "B".

### John Dalton Atomic Theory

In his theory he states that all things are made of small particles called atoms. Atoms of a given element are alike in mass and other properties. Compounds are formed by a combination of two or more different kinds of atoms. It's important to note that in his theory it is also stated that atoms are never created or destroyed in a chemical reaction, but are instead rearranged to form a new element. This theory is the basic foundation on that of what modern chemistry is based upon.