

Atoms: The Building Blocks of Matter

Atoms are the smallest unit of an element that retains the chemical properties of that element. They are

Structure of an Atom

Atoms consist of three primary subatomic particles:

1. **Protons:** Positively charged particles located in the nucleus of the atom.
2. **Neutrons:** Neutral particles also located in the nucleus.
3. **Electrons:** Negatively charged particles that orbit the nucleus in specific energy levels called electron shells.

Atomic Number and Mass Number

Atomic number: The number of protons in an atom's nucleus. This determines the element to which