

Chapter 3

Atoms and Minerals

Earth Materials

Atoms and Elements: Isotopes and Ions

A Review of Chemistry

Atoms

- *Atoms are composed of Protons, Neutrons and Electrons*
 - *A **proton** has an electric charge of +1 and a rest mass of 1.67×10^{-24} gm.*
 - *A **neutron** has a charge of 0 and a rest mass of 1.67×10^{-24} gm. (about the same as a proton).*
 - *An **electron** has a charge of -1 and a rest mass of 9.11×10^{-28} gm. (much, much less than a proton).*
- *The electron mass is negligible relative to protons and neutrons.*