Atoms: The existence of atoms was controversial (not demonstrated) until 1910. Subatomic particles (electrons, protons and neutrons) were discovered in the 1930s. With the development of quantum mechanics, particles became viewed as "wavelets." Protons and neutrons were seen as composed of "smaller" components called "quarks." Out of this beginning, an array of Elementary Particles came to be recognized and demonstrated. Their organization is summarized below. See Astronomy Online for details <http://astronomyonline.org/Science/QuantumPhysics.asp> Also, for more details, Google search for specific names, and go to Wikipedia information.

The Standard Model

Elementary (Fundamental) Particles (with various qualities of spin, mass and electric charge)

  Fermions (matter constituents)
    Leptons (6 flavors: e.g., electrons, muons, tau, neutrinos)
    Quarks (6 flavors: e.g., up, down, charm, strange, top, bottom)
  Bosons (force carriers) e.g., photon, w bosons, z bosons, gluon

Hadrons: Composite particles, each with specific combinations of quarks

  Baryons (fermionic hadrons). About 120 types, including:
    proton: composed of 3 quarks (2 ups and 1 down)
    neutron: composed of 3 quarks (1 up and 2 downs)
  Mesons (bosonic hadrons): about 140 types