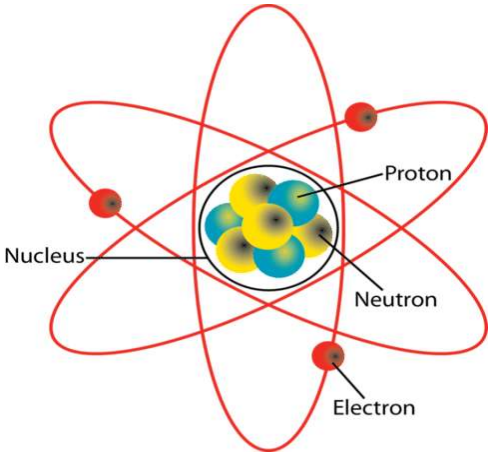
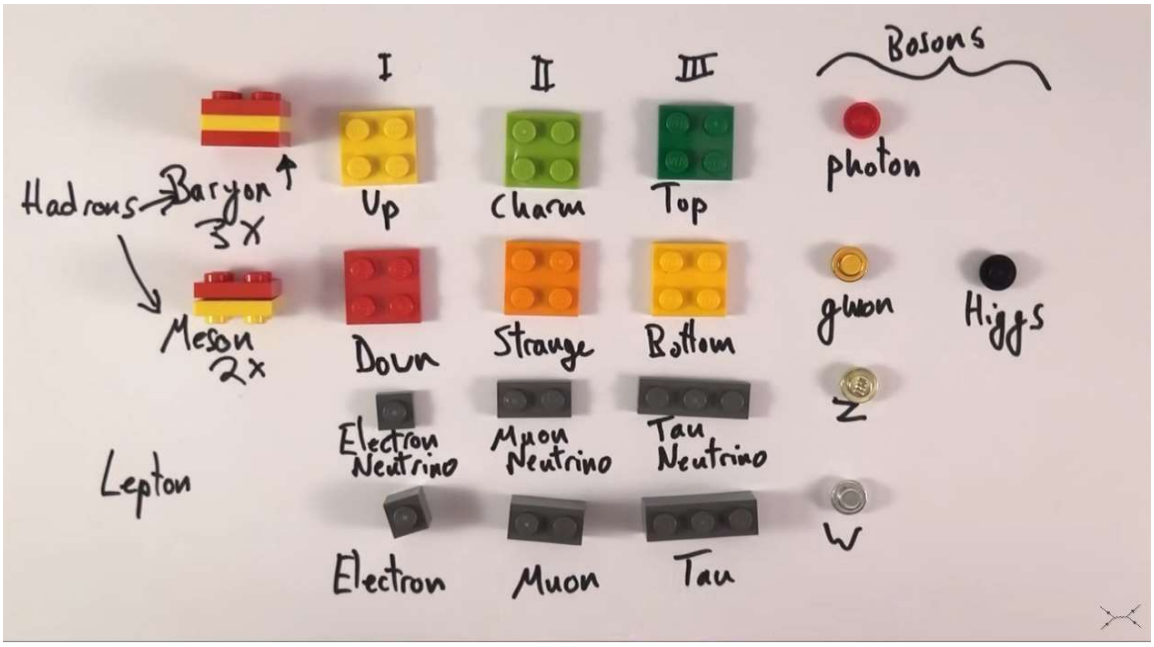
The Standard Model

Atoms are the building blocks of the universe. Atoms are constructed from three fundamental atomic particles: protons, neutrons, and electrons.



The standard model tells us that there are also many sub-atomic particles. Sub-atomic particles combine to form protons and neutrons. Protons are constructed of two up quarks and on down quark. Neutrons are constructed of two down quarks , one up quark, and an electron.. The photon carries the energy of the electromagnetic force and photons may encapsulate electrons. We need the standard model to explain how an atom of cesium may trans-mutate into an atom of barium.

The atom is a very complicated structure. We started to learn about the structure of the atom in the late 1800s and a new branch of science called quantum mechanics evolved to describe the atom's structure. There is still much to learn about the structure and function of the atom and its universe.



The Fundamental Particles of the Standard Model