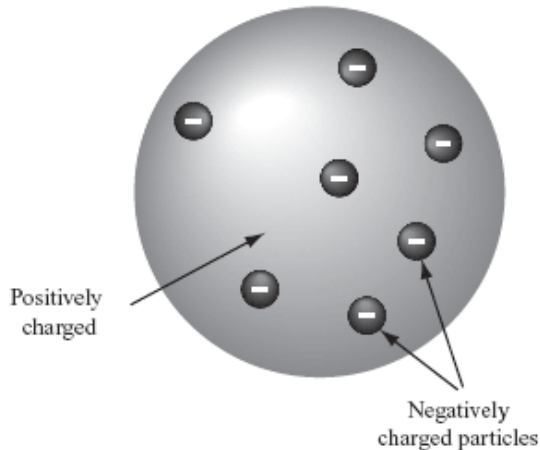


### U1.3: Developing the Atomic Model

Over time, scientists have proposed many different models (or ideas) about what the atom might be like. The pictures and descriptions below show four of the most well-known models of the atom:

**Plum Pudding Model**



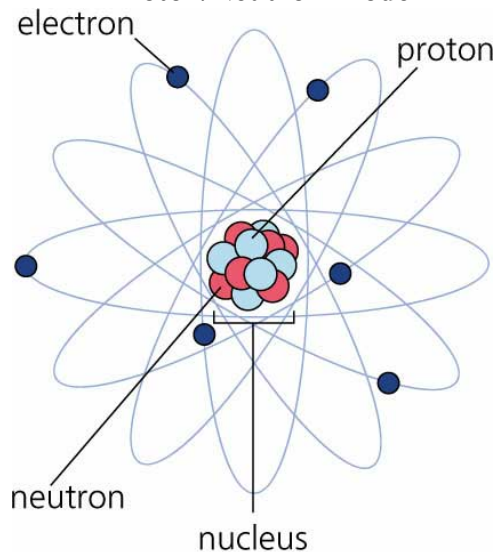
That atom can be divided into fluid (the “pudding”) and electrons (the “plums”). Most of the atom is made of fluid. The fluid spreads out over the whole atom and is positive. The electrons are scattered throughout and are negative.

**Solid Sphere Model**



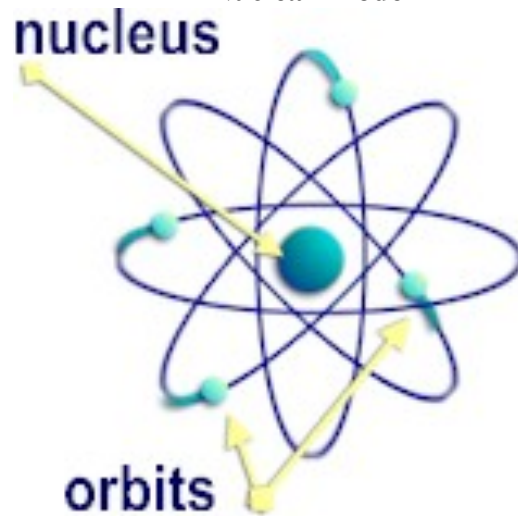
The atom is a solid sphere that cannot be divided up into smaller particles or pieces.

**Proton/Neutron Model**



The nucleus contains protons and neutrons and is located in the center of the atom. The protons are heavy and positively charged. The neutrons are also heavy, but they are neutral. The electrons are tiny and negatively charged and circle around the nucleus. Most of the atom is empty space.

**Nuclear Model**



The atom can be divided into a nucleus and electrons. The nucleus occupies a small amount of space in the center of the atom. The nucleus is dense and positively charged. The electrons circle around the nucleus. The electrons are tiny and negatively charged. Most of the atom is empty space.