

8/27 & 8/28 2019

Entry Atomic Hypothesis:

See Powers of Ten in Lecture notes

Highlights

- Physics is a broad all-encompassing subject. it covers the VERY large and the ~~very~~ VERY small (10^{10} m) (10^{23} m)

From the outer reaches of our universe to Elementary particles that make up our universe.

- An Angstrom is 10^{-10} m

- An Atom ~~basically~~ has a nucleus made up of protons and neutrons and electrons that occupy orbitals and shells surrounding the nucleus. The orbitals are areas that the electrons have a probability of being in

- Atoms are mostly empty space. For how we figured it out see Rutherford's Electron Scattering experiment.

- Elementary Particles cannot be broken up further

- Quarks (up and down) make-up protons and neutrons in the nucleus

- Electrons are ~~elementary~~ leptons and are elementary particles themselves

- Other Elementary Particles (gluon, photon, Z boson, W boson) are force Particles

- Higgs is the mass Particle

Other Entry
~~Equal~~ Answer

- A Phase Change is a change in a state of matter (Liquid, solid, Gas Plasma, one states of matter)