**Honors Chemistry Early Atomic Theories Quiz**

**Topic List**

Things to Know:

* History of the Atom Know their theories/models of the atom, and any important discoveries
  + Dalton
  + Thomson\*
  + Rutherford\*
  + Bohr

\* = know the experiments these scientists conducted, the evidence collected, and the conclusions made about the atom as a result

* Definition of isotopes
* How to read and write isotopic notations
* How to calculate the average atomic mass of isotopes
* Identify charge, mass, and location of protons, neutrons, and electrons
* Define and calculate atomic #
* Define and calculate mass #
* Identify which subatomic particles are considered to be nucleons
* Determine the nuclear charge of an atom
* Know the difference between ground and excited state and how electrons transfer between these states in terms of energy
  + Be able to explain how bright light spectra are produced and some ways they are used
* Define the terms wavelength and frequency, and know the relationship between them
* Memorize the light formulas: c = λ · *v*  and E = h · *v*
  + Perform calculations using these when given variables
  + \*Remember that wavelength MUST be converted to m in order to use in these equations!
  + Constants will be given
    - speed of light (c) = 3.00 x 108 m/s
    - Planck’s constant (h) = 6.63 x 10-34 J∙s