SWBAT = Student Will Be Able To

SWBAT identify the major contributors to modern atomic theory and their major contributions: Dalton, Thomson, Millikan, Rutherford, Chadwick
SWBAT compare and contrast the "plum pudding" and nuclear (or Rutherford) atomic models.
SWBAT describe Rutherford's gold foil experiment
SWBAT define atom
SWBAT describe the major parts and general structure of an atom including location and charges of the subatomic particles
SWBAT define and locate on the periodic table: atomic number, atomic mass
SWBAT explain the role of the atomic number in the identification of an atom.
SWBAT explain that elements are arranged on the periodic table by increasing atomic mass
SWBAT to define isotope
SWBAT determine an isotope's mass number
SWBAT determine which is the most abundant isotope based on the atomic mass
SWBAT write and interpret isotopic notation
Given its symbol, SWBAT determine the number of subatomic particles in an isotope
SWBAT explain the relationship between an unstable nucleus and radioactive decay
SWBAT characterize alpha, beta and gamma radiation in terms of mass and charge.
H: Given the percent abundances, SWBAT calculate the atomic mass for an element.
*Structure requires a designer; atomic structure clearly reflects a careful, orderly, extraordinary design. It is not random or chaotic, but orderly and impossible in its detail, size, and sheer numbers.
*The numerical sequence of increasing atomic number reflects a God that "thinks" rationally and mathematically.