## What You Should Know About "The Atom"!

- 1.) The smallest atom is hydrogen with one proton.
  - a.) How many isotopes does it have? (2)
  - a.) Name its isotopes and characterize them? (deuterium has one proton and one neutron; tritium has one proton and two neutrons)
- 2.) How many confirmed elements are there on the Periodic Table, and why is this impressive? (118 elements)
- 3.) How many naturally occurring elements are there on the Periodic Table, and why is this impressive? (92—the significance of this is that all of these atoms, with the exception of H and He, have been produced either due to fusion in the core of a star, due to the r-process during the death of a star (via supernova) or due to spallation (protons knocked out of the nucleus of a carbon atom during a supernova)
- 4.) How many of the elements on the Periodic Table are stable? (79)
- 5.) How many of the elements on the Periodic Table are radioactive? (39)