**Honors Chem- Unit 3**. **Make sure you know**:

1. Bohr model vs. Quantum Mechanical
   1. Which of above is like planets orbiting sun? What do the orbits represent?
   2. Which incorporates the probability of finding an e- in a certain region of space?
2. When light acts more like a particle, what is it called?
3. Know how to determine these things: atomic radius, IE, # of valence e-, electronegativity, elec configurations, NG (shorthand) config, e- dot
4. How do you determine the oxidation #s of all the ‘A’ elements (meaning…not the transition metals)? What can the transition metals do regarding ox #?
5. On Periodic Table, what (or where) are:
   1. Groups/ families
   2. Periods
   3. Metals, Nonmetals, Metalloids, Alkali Metals, Alkaline earth, Noble Gases, Halogens, etc
   4. Which act more chemically similar, groups or periods?
   5. S block, p, d, f
   6. How many orbitals in s? p? d? f? How many e- can an orbital hold?
6. How do you find valence e- # if given an elec configuration?
7. Which has higher energy, an electron in 3s or 3d?
8. Why are noble gases stable and nonreactive? Why are all other elements reactive?
9. Know the periodic trends! (last slide in Part 5 PPt)
10. What is ‘ground state’ of electrons? Excited state? How does an e- emit (give off energy)? Think of your Flame Test lab!
11. How do you show a valence shell configuration for an elements Valence e-? (there are 3 on the test)
12. Be able to find frequency of a photon of light, given the wavelength and vice versa (see the 1st PPt- Bohr model)