**Honors Chemistry Daily Warm-Ups**

**Unit 3**

**Day 1**

* Calculate the density of a 12.0 g of a metal with a volume of 1.35 cm3? Identify the metal using your reference pack.
* Convert 250 ml to L.

**Day 2**

* Draw an atom – label its parts (protons, neutrons and electrons)
* Describe the relative mass and relative charge on each subatomic particle.

**Day 3**

Describe the contributions that the following individuals made to the atomic theory:

* Dalton
* Thomson
* Bohr
* Rutherford
* Schrodinger

**Copy** and **fill** in the following table:

|  |  |  |  |
| --- | --- | --- | --- |
| **Element/ion** | **# of protons** | **# of neutrons** | **# of electrons** |
| Fe |  |  |  |
|  | 19 |  |  |
|  | 27 |  |  |
|  |  |  | 12 |
|  |  | 146 | 92 |

**Day 4**

* Find the mass of an element if out of a sample of 100:
* 5 % have a mass of 176, 19 % have a mass of 177, 27 % have a mass of 178, 14 % have a mass of 179 and 35 % have a mass of 180?
* Identify this element by symbol and name.

**Day 5**

* Write the long form (full) electron configuration for arsenic.
* Write the Noble Gas electron configuration for
  + Al
  + Ag
  + At

**Day 6**

* Give the Lewis dot diagram for the following:

P Ba

**Day 7**

* Explain how a glow in the dark sticker works – use these words in your explanation- ground state, excited, electrons, jump(ing).
* Using Bohr’s model:
  + what is the wavelength of light (in nm) when an electron jumps from n= 6 to n = 3?
  + What type of energy is this?

**Day 8**

* Complete the following nuclear reactions:

1. 🡪  + 
2.  🡪  + 

Which of the three radioactive emissions ( best fit the following statements? Write the correct symbol/s on the lines. Some may be used more than once.

1. These emissions are charged.
2. This emission is the most massive (heaviest).
3. This emission is the most charged