**Unit 9A Chemical Formulas, Bonding and Naming**

**Extra Test Prep Practice**

**Objective: Reading/Interrupting Chemical Compounds**

1. What is the atomic tally for the following compounds?
   1. 3Na2CO3
   2. NH4Cl
   3. 2Ba(SO4)2
2. What is the formula mass for the following compounds?
   1. Ca(OH)2
   2. (NH4)2CO3
   3. Al2(SO4)3
3. Solve for percent composition of the following compounds:
   1. CuBr2…. What percent is Cu?
   2. NaOH… What percent is O?
   3. 2O2…. What percent is O?

**Objective: Ionic Bonding**

1. What does it mean for an atom to be an ion?
2. When atoms gain electrons in order to become stable, their overall charge is…
3. When atoms lose electrons in order to become stable, their overall charge is…
4. What are positively charged ions called?
5. What are negatively charged ions called?
6. When dealing with bonding we are concerned about valence electrons, what are valence electrons? How do you figure out how many valence electrons an atom would have?
7. What is an ionic bond? What type of elements are they made out of?
8. Put the following ions together into the correct formula for the given ionic compounds, don’t forget to use parenthesis if needed.
   1. Au1+  N3-
   2. Na1+ O2-
   3. Mg2+ OH1-
   4. Fe2- PO4 3-
   5. K1+ S2-
9. Name the following ionic compounds.
   1. LiBr
   2. BeS
   3. K2O
   4. CaSO4
   5. FeCO3

**Objective: Covalent Compounds**

1. What is a covalent bond? What type of elements are they made out of?
2. Based off of the names given, what is the compound formula?
   1. Phosphorus trichloride
   2. Diphosphorus pentoxide
   3. Dinitrogen pentoxide
   4. Sulfur dioxide
   5. Diarsenic pentasulfide
3. Based off of the compound formula given, what is the name?
   1. SO3
   2. CO
   3. CS2
   4. CCl4
   5. C2Br4

**Mixed practice:**

Complete the following chart to do some mixed practice.

|  |  |  |
| --- | --- | --- |
| **Formula** | **Ionic or Covalent** | **Name** |
|  |  | Oxygen difluoride |
| Ba3P2 |  |  |
|  |  | Disulfur tetraoxide |
| C2H4 |  |  |
| H2 |  |  |
|  |  | Iron (II) nitride |
| KCN |  |  |
| Ca3N2 |  |  |