**Unit 2 Remediation Packet**

**Due: Thursday, 10.4.18**

**Tutoring Offered: Mondays from 3:40 – 5:00pm or mornings by appointment. Please sign up!**

**Re-Test Dates: Monday, 10.8.18 or Wednesday, 10.10.18 from 3:40 – 5:00pm**

**The remediation packet must be completed and checked BEFORE re-testing will occur.**

**Ionic Bonding**

1. Which two types of elements can form an ionic bond?
2. What is an ionic bond?
3. How does a positively charged cation form? How does a negatively charged anion form?
4. Why does an ionic bond form?
5. Draw electron dot diagrams to show the formation of an ionic bond between the elements provided. You must show the transfer of electrons, the charges formed, and the formula of the resulting ionic compound.



* 1. Na and S
	2. Ca and N
	3. Li and P
	4. Sn and O

**Covalent Bonding – here’s a tutorial if needed** [**https://chemfiesta.org/2015/01/20/drawing-simple-lewis-structures/**](https://chemfiesta.org/2015/01/20/drawing-simple-lewis-structures/)

1. What types of elements are involved in covalent bonds?
2. How does a covalent bond form?
3. Why does a covalent bond form?
4. Draw Lewis structures to show the formation of covalent bonds in these molecules:
	1. H2O
	2. CS2
	3. SO3
	4. NF3
	5. SiBr2H2

**Nomenclature – Names and Formulas – need assistance? Here’s a tutorial.**

[**https://chemfiesta.org/2015/03/23/ionic-and-covalent-compounds/**](https://chemfiesta.org/2015/03/23/ionic-and-covalent-compounds/)

[**https://chemfiesta.org/2015/09/18/covalent-compounds-lewis-structures/**](https://chemfiesta.org/2015/09/18/covalent-compounds-lewis-structures/)

1. How can you tell from the name that a substance is a(n)…
	1. Type I ionic compound?
	2. Type II ionic compound?
	3. Type III covalent compound?
	4. Binary acid?
	5. Oxyacid?
2. How can you tell from the formula that a substance is a(n)…
	1. Type I ionic compound?
	2. Type II ionic compound?
	3. Type III covalent compound?
	4. Binary acid?
	5. Oxyacid?
3. What is the difference between a binary compound and a tertiary compound?
	1. Which types of compounds do you criss-cross charges?
	2. Which type of compound do you **never** criss-cross because it does NOT have any charges?
4. Identify if the following compounds are **Type I, Type II, Type III, Binary Acid, or Oxyacid?**
	1. Chromium (III) sulfide
	2. Carbon dioxide
	3. Acetic acid
	4. Calcium nitrite
	5. Iron (II) hydroxide
	6. Sulfur trioxide
	7. Hydrosulfuric acid
	8. Tetracarbon decahydride
	9. Aluminum fluoride
	10. MgSO3
	11. P2O5
	12. H2C2O4
	13. C3H7
	14. Cr(ClO2)3
	15. HF
	16. NO3
	17. Ag3P
	18. Li2CrO4
5. Write the formula for the following compounds.
	1. Hydrophosphoric acid
	2. Manganese (II) cyanide
	3. Beryllium iodide
	4. Dinitrogen pentasulfide
	5. Nitrous acid
	6. Copper (I) dichromate
	7. Aluminum sulfate
	8. Dicarbon hexachloride
	9. carbon monoxide
	10. carbonic acid
6. Write the name for the following compounds.
	1. H2O
	2. Na2S
	3. C2H6
	4. WPO4
	5. H3N
	6. C4H9
	7. HNO2
	8. IF7
	9. Au(C2H3O2)3
	10. NaOH