Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period: 1 2 3 4 5 6

**Bonding Unit Review**

**Part A: Ionic Compounds**

1. Define the following terms below.
	1. Ion: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. Cation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. Anion: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	4. Valence electrons: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. Octet: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Draw the Lewis Dot Structures for the following elements.
	1. N
	2. S
	3. Al
	4. Br
2. Write the following elements as the ions that they form when they gain/lose electron(s).
	1. Cl: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. Ca: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. O: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	4. Li: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Write the formula for the following compounds:
	1. Sodium phosphide
	2. Aluminum sulfide
	3. Iron (II) chloride
	4. Chromium (I) nitride
4. Write the name for the following compounds:
	1. FeCl
	2. BeF2
	3. MgO
	4. CrS

**Part C: Covalent Compounds**

1. Write the formula for the following compounds:
	1. Silicon dioxide
	2. Carbon monoxide
	3. Dinitrogen trioxide
	4. Pentaphosphorus disulfide
2. Write the name of the following compounds:
	1. CO2
	2. P2O
	3. CCl4
	4. N2O

**Part D: Ionic vs. Covalent Properties**

1. Complete the chart with characteristics you learned from the lab.

|  |  |  |
| --- | --- | --- |
| **Characteristic** | **Ionic** | **Covalent** |
| Elements involved |  |  |
| Share/transfer electrons |  |  |
| Naming |  |  |
| Strength of bonds |  |  |
| Conductivity |  |  |
| Structure  |  |  |