

## Study Guide Chapter Four - Bonding

|                                                                |                              |                           |                 |
|----------------------------------------------------------------|------------------------------|---------------------------|-----------------|
| magnesium oxide                                                | 2                            | a negative ion            | 2               |
| oppositely charged ions                                        | covalent                     | covalent bond             | polyatomic ions |
| positive ion                                                   | sodium sulfide               | when dissolved in water   | neutral         |
| an atom or group of atoms that has become electrically charged | they have low melting points | electrons are transferred |                 |

- What is an ion? \_\_\_\_\_
- When an atom loses an electron, it becomes a \_\_\_\_\_
- When an electron is transferred from a sodium atom to a chlorine atom, the chlorine atom becomes \_\_\_\_\_
- An ionic bond is the attraction between \_\_\_\_\_
- An ionic bond is formed when \_\_\_\_\_
- Ionic compounds are electrically \_\_\_\_\_
- How many chlorine ions are needed to cancel the 2+ charge of magnesium in magnesium chloride ( $\text{MgCl}_2$ ). \_\_\_\_\_
- Ions that are made of more than one atom are examples of \_\_\_\_\_
- What is the chemical name for the compound with the formula  $\text{Na}_2\text{S}$  \_\_\_\_\_
- The ionic compound  $\text{MgO}$  is called \_\_\_\_\_
- This is NOT a characteristic property of ionic compounds \_\_\_\_\_
- In what form can an ionic compound conduct electricity? \_\_\_\_\_
- A chemical bond that forms when two atoms share electrons is called a(n) \_\_\_\_\_
- Bonds that form between two nonmetals are usually \_\_\_\_\_
- How many covalent bonds can oxygen form? \_\_\_\_\_