

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

**Chemistry** ~ Ms. Hart

**Class:** \_\_\_\_\_ Anions or Cations



**5.7 Characteristics of Ionic vs. Covalent vs. Metallic**

Characteristics of Ionic vs. Covalent vs. Metallic Compounds			
Characteristics	Ionic Compound	Covalent Compound	Metallic Compound
Representative Unit			
Bond Formation			
Type of Elements In Compound			
Physical State			
Melting Point			
Solubility in Water			
Electrical Conductivity			

1. A white crystalline salt conducts electricity when it is melted and when it is dissolved in water. Which type of bond does this salt contain?

- 1) Ionic bonds
- 2) Metallic bonds
- 3) Covalent bonds
- 4) It cannot be determined

2. A sample of green gas is most likely to be a compound that contains:

- 1) Ionic bonds
- 2) Metallic bonds
- 3) Covalent bonds
- 4) It cannot be determined

3. A purple crystal is found. This substance is likely to contain bonds that are:

- 1) Ionic bonds
- 2) Metallic bonds
- 3) Covalent bonds
- 4) It cannot be determined

4. You look at a sample of a solid under a microscope and see what appear to be a completely random structure

- 1) Ionic bonds
- 2) Metallic bonds
- 3) Covalent bonds
- 4) It cannot be determined

5. Which compound will likely have the lowest melting point?

- 1)  $I_2$
- 2)  $LiCl$
- 3)  $Na_2O$
- 4)  $MgF_2$