

Name: _____ Date: _____ Per.: _____

Ionic Bonds Practice

1. Fill in the missing information on the chart.

Element	# of Protons	# of Electrons	# of Valence Electrons
Sodium			
Chlorine			
Beryllium			
Fluorine			
Lithium			
Oxygen			
Phosphorus			

2. For each of the following ionic bonds:

- Write the symbols for each element.
- Draw a Lewis Dot structure for the valence shell of each element.
- Draw an arrow (or more if needed) to show the transfer of electrons to the new element.
- Write the charges on the ions.
- Write the resulting chemical formula.

a) Sodium + Chlorine

b) Magnesium + Iodine

c) Sodium + Oxygen

d) Calcium + Chlorine

e) Aluminum + Chlorine

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Covalent Bond Practice

1. Fill in the missing information on the chart.

Element	# of Protons	# of Electrons	# of Valence Electrons	# of electrons to fill outer shell.
Carbon				
Hydrogen				
Chlorine				
Helium				
Phosphorus				
Oxygen				
Sulfur				
Nitrogen				

2. For each of the following covalent bonds:

- Write the symbols for each element.
- Draw a Lewis Dot structure for the valence shell of each element.
- Rearrange the electrons to pair up electrons from each atom.
- Draw circles to show the sharing of electrons between each pair of atoms
- Draw the bond structure using chemical symbols and lines. Use one line for each pair of electrons that is shared.
- Write the chemical formula for each molecule.

a) Hydrogen + Hydrogen

b) Chlorine + Chlorine

c) Hydrogen + Chlorine

d) Hydrogen + Oxygen

e) Nitrogen + Hydrogen

f) Carbon + Hydrogen