Chemistry 2 Review

1. Where in the periodic table are the nonmetals located? Name 3 nonmetals. _____
_____

2. Where in the periodic table are the metals located? Name 3 metals. _____
_____

3. How do you figure out how many valence electrons an atom has? _____
_____

4. Do metals gain or lose electrons when bonding? _____

5. Do nonmetals gain or lose electrons when bonding? _____

6. What kind of bond forms when atoms steal/transfer electrons? _____

7. What kind of bond forms when atoms share electrons? _____

8. What is a cation? _____

9. What is an anion? _____

10. Name 3 atoms that will become cations when bonding. _____

11. Name 3 atoms that will become anions when bonding. _____

12. Complete the chart for each element.

Element	# of Protons	# of Electrons	# of Valence Electrons	# of Electrons to Fill Outer Shell
Carbon				
Chlorine				
Hydrogen				
Aluminum				
Oxygen				
Sulfur				
Nitrogen				

13. Draw the Lewis Dot Structures for each of the atoms below. Then show the Lewis Dot Structure for these covalent bonds. (Hint: The number of atoms for the compound is not given. There may be more than one type of atom in the compound.)

a. Hydrogen + Hydrogen

b. Hydrogen + Oxygen

c. Chlorine + Oxygen

d. Oxygen + Oxygen

e. Carbon + Oxygen

14. Complete the chart for each element.

Element	# of Protons	# of Electrons	# of Valence Electrons
Sodium			
Calcium			
Iodine			
Fluorine			
Magnesium			
Oxygen			
Potassium			

15. Draw the Lewis Dot Structures for each of the atoms below. Then show the Lewis Dot Structure for these ionic bonds. (Hint: The number of atoms for the compound is not given. There may be more than one atom on the compound formed below.)

a. Potassium + Fluorine

b. Magnesium + Iodine

c. Sodium + Chlorine

d. Calcium + Chlorine

e. Aluminum + Chlorine