

Chapter 5

Study Guide

Name: _____

Date: _____ Per: _____

6. What are 5 properties of the metals?

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7. The electrons in the outermost energy level are responsible for the atom's _____. These electrons are called the _____ electrons. There can never be more than _____ of these electrons.

8. In order for an element to be stable it must have _____ (if it is a small atom) or _____ electrons in its outer energy level.

9. The law of octaves says _____.

10. A periodic trend is a _____.

11. All of the periodic trends relate to the fact that attraction of the nucleus to the electron cloud increases from the _____ corner to the _____ corner.

12. Fill in the definitions below and the element name with the greatest and least value.

Trend	Definition	Highest	Lowest
Atomic radius			
Ionization Energy			
Electronegativity			

13. Fill in the following chart:

Trend	Change Moving Left to Right Across a Period	Change Moving Down a Group
Atomic radius		
Ionization Energy		
Electronegativity		

14. When an atom gains electrons it takes on a _____ charge and its radius _____.

15. When an atom loses electrons it takes on a _____ charge and its radius _____.

16. Define 'successive ionization energies' _____.

17. Elements on the left side of the periodic table tend to _____ electrons to become stable, making them _____ charged.

18. Elements on the right side of the periodic table tend to _____ electrons to become stable, making them _____ charged.

19. The family of elements with the highest ionization energies are the _____.

20. The family of elements with the lowest ionization energies are the _____.