Chemistry Chapter 6

1. **Alkali Metal:** group 1A elements, except for hydrogen, that are on the left side of the modern periodic table.
2. **Alkaline Earth Metals:** group 2A elements in the modern periodic table.
3. **Electronegativity:** indicates the relative ability of an element's atoms to attract electrons in a chemical bond.
4. **Group:** a vertical column of elements in the periodic table; also called a family.
5. **Halogen:** a highly reactive group 7A element.
6. **Inner Transition Metal:** a type of group B element that is contained in the f-block of the periodic table and is characterized by a filled outermost orbital, and filled or partially filled 4f and 5f orbitals.
7. **Ion:** an atom or bonded group of atoms with a positive or negative charge.
8. **Ionization Energy:** the energy required to remove an electron from a gaseous atom: generally increases in moving from the left-to-right across a period and decreases in moving down a group.
9. **Metal:** an element that is solid at room temperature, a good conductor of heat and electricity, and generally is shiny; most metals are ductile and malleable.
10. **Metalloid:** an element, such as silicon or germanium, that has physical and chemical properties of both metals and nonmetals.
11. **Noble Gas:** an extremely unreactive group 8A element.
12. **Nonmetal:** elements that are generally gases or dull, brittle, solids that are poor conductors of heat and electricity.
13. **Octet Rule:** states that atoms lose, gain, or share electrons in order to acquire a full set of eight valence electrons (the stable electron configuration of a noble gas).
14. **Period:** a horizontal row of elements in the modern periodic table.
15. **Periodic Law:** states that when the elements are arranged by increasing atomic number, there is a periodic repletion of their chemical and physical properties.
16. **Representative Elements:** groups of elements in the modern periodic table that are designated with an A (1A through 8A) and possess a wide range of chemical and physical properties.
17. **Transition Element:** groups of elements in the modern periodic table that are designed with a B (1B through 8B) and are further divided into transition metals and inner transition metals.
18. **Transition Metals:** a type of group B element that is contained in the d-block of the periodic table and, with some exceptions, is characterized by a filled outermost s orbital of energy level n, and filled or partially filled d orbitals of energy level n – 1.