Periodic Table Chapter 5

Objectives:

By the end of this unit, you should be able to:

* Explain the roles of Mendeleev and Moseley in the development of the periodic table
* Describe the modern periodic table
* Explain how the periodic law can be use to predict the physical and chemical properties of elements
* Describe how elements belonging to a group of the periodic table are interrelated in terms of atomic number
* Describe the relationship between electrons in sublevels and the length of each period of the periodic table
* Locate and name the four blocks of the periodic table. Explain the reasons for their names
* Discuss the relationship between group configurations and group numbers
* Describe the locations in the periodic table and the general properties of the alkali metals, alkaline earth metals, halogens and noble gases
* Define atomic and ionic radii, ionization energy, and electronegativity.
* Compare the periodic trends of atomic radii, ionization energy, and electronegativity, and state the reasons for the variations
* Define valence electrons and state how many are present in atoms of main group elements
* Compare the atomic radii, ionization energies, and electronegativities of the d-block elements with those of main group elements.

Vocabulary:

Group

Period

Periodic law

Periodic table

Lanthanide

Actinide

Alkali metals

Alkaline-earth metals

Transition metals

Main-group elements

Halogens

Noble Gases

Inner transition metals

Atomic radius

Ion

Ionization

Ionization energy

Cation

Anion

Valence electron

electronegativity

Agenda (This is tentative. HW assignments may change)

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| --- | --- | --- |
| Date | In class | For next class: |
| 10/31-11/1 | Current Events  Tests Back  Organization of PT and PT properties | Read p.130-144  Do # 8, 9, 13, 42 pages 159-161 (Chapter Review) |
| 11/2-11/3 | Check HW  Ions!  5.3 Periodic properties | Read p. 144-156  #23, 27-29, 36-38 page 160 |
| 11/4-11/7 | **ALL MISSING WORK DUE TODAY! NO EXCEPTIONS!!!!!!**  Check HW  Finish 5.3 Periodic Properties  PT graphing activity | Unit 3 Review WS |
| 11/8-11/9 | Check HW  **Chapter 5 Assessment**  Begin Chapter 6: Bonding |  |