

Periodic Table Trends

Chemistry Unit - Day 13
October 22nd, 2007

Check the new seating chart...

Daily Question:

How is the Periodic Table organized?

Objectives for Day 44 Monday, 10/22/07

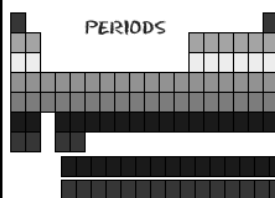
- ◆ *Diagram* several trends and properties of the Periodic Table
- ◆ *Construct* a comprehensive, detailed, and useful version of the Periodic Table

The Periodic Table

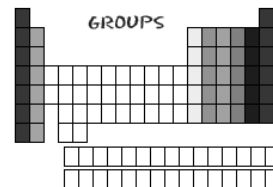
How is it organized?

- **Period:** a horizontal row in the periodic table
- **Group:** a vertical column (also known as a "family")

Periods

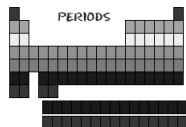


Groups



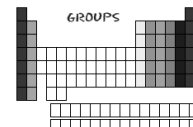
http://www.chem4kids.com/files/elem_peritable.html

Periods



- Regions where electrons like to hang out = "electron shells"
- All elements in a given period have the same number of electron shells
- Top row = 1 shell,
- Bottom row = 7 shells

Groups (Families)



- Remember: All elements in a group have same # of valence electrons
- Group #1 = 1 VE (highly reactive)
- Group #18 = 8 VE's (very stable)
- All want to have zero or 8 V.E.

Tendency to Gain/Lose Electrons

Remember valence electrons rules:

- Elements to the left have a few "extra" - they want to **lose** them
- Elements to the right are missing a few - they want to **gain** them

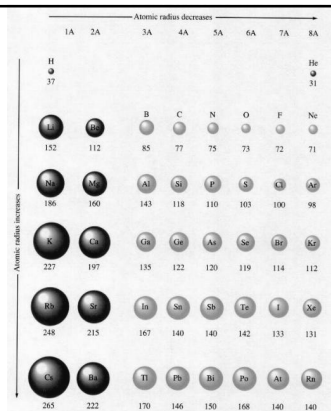
Other Periodic Table Trends

Atomic Size:

- Smaller as you move to the right
- Larger as you move down each period

Where are the largest atoms on the PT?

Atomic Size



http://www.avon-chemistry.com/p_table_atomic_rad.jpg

Periodic Table Trends Activity

- ◆ Read the directions completely first
- ◆ Colored pencils to outline and shade
- ◆ This week:
 - Venn Diagram due tomorrow
 - Periodic Table due Wednesday
 - Review in-class & After School Wednesday
 - TEST ON THURSDAY!!

Bring Colored Pencils tomorrow if you have them!