



Periodic Table of Elements

Page 290-303 of Text book

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
P1																		
P2																		
P3																		
P4																		
P5																		
P6																		
P7																		

Periodic (repeating) Table

Demitri Mendeleev: Father of the Periodic Table

Elements are arranged according to chemical properties and increasing atomic number (# of protons)

Periods

Horizontal rows

7 total periods

Tells the number of energy levels (shells) in each atom

Families (groups)

Vertical columns (18 total)

8 families and the Transition Elements

Tells the number of valence electrons (except Transitions)

Valence electrons = electrons in outer shell



Periodic Table of Elements

Read pages 290-303 in textbook

Go to: <http://www.loganaskwhy.com> and click “science links”
for a few Periodic Tables

1. Metals: left of the staircase (pgs. 298)
Conduct electricity, metallic luster, malleable (bendable)
Most reactive metal: Francium, Fr
2. Nonmetals: right of the staircase (page 298)
Poor conductors, dull, break or gas at room temperature
Most reactive nonmetal: Fluorine, F
3. Metalloids/Semiconductors: nonmetals, conduct (page 299)
4. Alkali Metal Family (page 301)
Family 1 (1 valence electron)
Soft silvery metal
Very reactive, form +1 ions, why?
5. Alkaline Earth Metal Family (page 301)
Family 2 (2 valence electrons)
Not as reactive as Alkali Metals, form +2 ions, why?
6. Transition Metals (page 301)
Valence electrons vary, depends on the molecule
7. Halogen Family (page 301)
Family 17 (7 valence electrons)
Very reactive, forms -1 ions, why?
8. Noble Gases (page 301)
Family 18 (8 valence electrons, except Helium has 2)
Very inert, not reactive at all, why?
9. Lanthanides and Actinides
Each fits in one small box