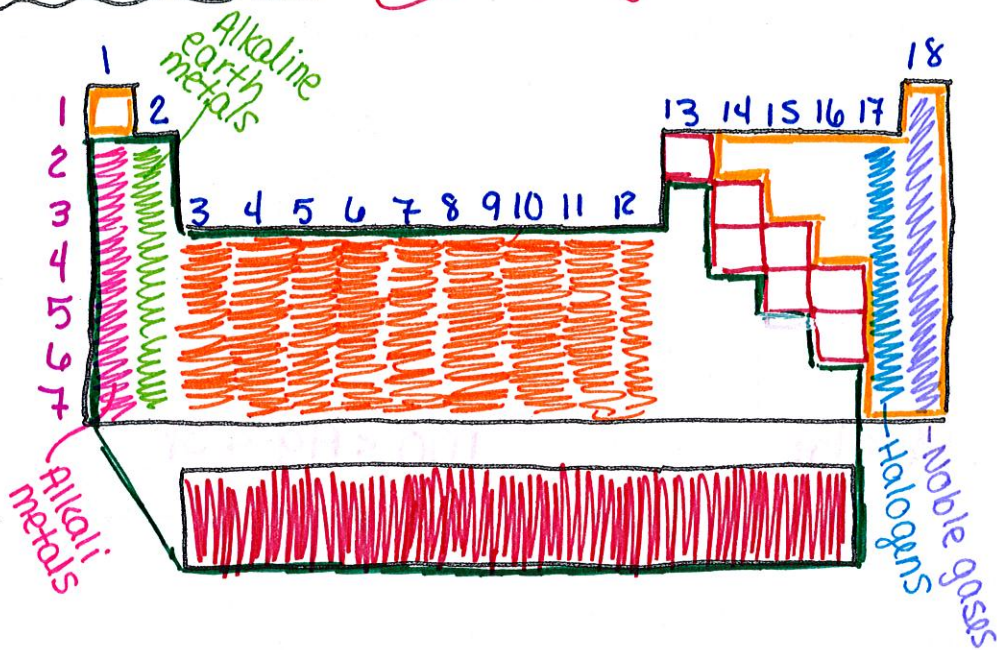


# Unit 2 Review

Key



- 1) Number the groups. Define a group.  
Vertical column of elements
- 2) Number the periods. Define a period.  
Horizontal row of elements
- 3) Outline the following (and label): metals, metalloids, nonmetals

- 4) Label these groups:
  - noble gases Gr 18
  - alkali metals Gr 1
  - alkaline earth metals Gr 2
  - transition metals Grps 3-12
  - inner transition metals bottom 2 rows
  - halogens Gr 17

5) Who is credited for developing the 1<sup>st</sup> Periodic Table?  
How did he arrange his Periodic Table?  
by increasing weight, with elements that have similar properties in rows  
Mendeleev

6) How is the modern Periodic Table arranged?  
by increasing atomic number, elements w/ similar properties in groups

7) Define:

- atomic radius
- ionization energy energy needed to remove an e<sup>-</sup> from an atom
- electronegativity attraction b/w the nucleus of one atom for the e<sup>-</sup> on another atom

8) Explain the following trends:

	atomic radius	ionization energy	electronegativity
down a group	increases	decreases	decreases
across a period	decreases	increases	increases

Half the distance b/w nuclei chemically bonded together

9) Use your knowledge of trends to answer these questions.

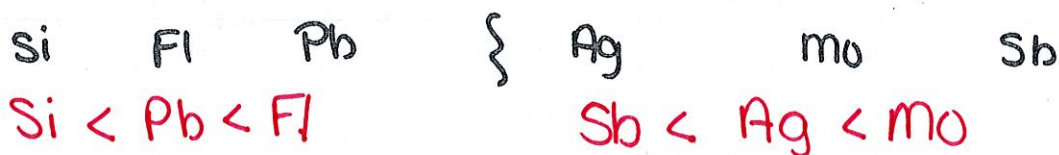
- which element has a larger atomic radius:  $\text{Cr}$  or  $\text{Cu}$ ?
- which element has a larger ionization energy:  $\text{Cr}$  or  $\text{W}$ ?
- order these elements from smallest to largest electronegativity.



- order these elements in decreasing ionization energy.



- order these elements in increasing atomic radius



10) study your answers to the "Hunting the Elements" Documentary.