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| Why the trends?  CλeMis+ry: http://genest.weebly.com  Stop in for help every day at lunch and Tues,&Thurs after school! |  | Name\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_ |

Definitions.

Define the following terms:

* 1. Period
  2. Group
  3. Atomic radius
  4. Electronegativity
  5. Ionization Energy

**Questions.**

**You can answer these from your notes today or, if you have a Smart Phone, the textbook pictures on the top of pp. 401, 403, & 406. You can view the textbook pages at our class website: genest.weebly.com using any Internet device.**

1. What happens to the atomic radius between elements two and three?
2. What happens to the atomic radius between elements eleven and eighteen?
3. Which group on the periodic table has the highest ionization energy?
4. Which group has the periodic table has lowest ionization energy?
5. What happens to the ionization energy between elements ten and eleven?
6. What happens to the ionization energy between elements three and ten?
7. What happens to the ionization energy between elements four and five
8. What happens to the ionization energy between elements seven and eight
9. Summarize the overall trend observed for atomic radius for elements in a period
10. Summarize the overall trend observed for atomic radius for elements in a group
11. Summarize the overall trend observed for electronegativity for elements in a period
12. Summarize the overall trend observed for electronegativity for elements in a group
13. For which of these properties does lithium have a larger value than potassium?
    1. first ionization energy
    2. atomic radius
    3. electronegativity
14. arrange these elements in order of decreasing atomic size: sulfur, chlorine, aluminum, and sodium.
15. Does your arrangement in the previous question demonstrate a periodic trend or a group trend?
16. Which element in each pair has the larger ionization energy?
    1. Li or K
    2. phosphorous or oxygen
17. Which element in each pair has a smaller atomic radius?
    1. Li or K
    2. phosphorous or oxygen