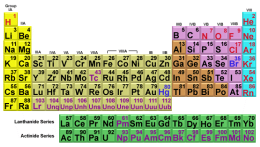
Name: _____ Date: _____ Class period: _____



Unit: Periodic Trends
"Atomic Size Trend"

Directions: Please answer each fill in the blank with the best answer. ☺

1. As you move from top to bottom down a group on the periodic table the size of an atom will _____.
2. This happens because as you move down the group each element has one more occupied _____ than the last one.
3. As you move from left to right across a period on the periodic table the size of an atom will _____.
4. This happens because as you move across a period each element has one more _____ in its nucleus than the last one.
5. Within a period the elements will have the same number of occupied _____.
6. The _____ effect is caused by inner electrons interfering with the attraction of outer electrons for the protons in the nucleus.
7. Electrons which are further from the nucleus are _____ attracted to the nucleus because of this effect.
8. **Explain** why fluorine has a smaller atomic radius than oxygen.

9. **Explain** why fluorine has a smaller atomic radius than chlorine.

10. Arrange these elements in order of decreasing atomic size: sulfur, chlorine, aluminum, and sodium. Does your arrangement demonstrate a periodic or a group trend?

11. Circle the element in each of the following pairs with the greater atomic size:
    a) sodium or lithium
    b) silicon or magnesium
    c) carbon or boron

d) selenium or oxygen