

**Questions:**

1. Which elements had complete outer shells? Give name and symbol for each.
2. What do you notice about the location of those elements?
3. Which elements had only one valence electron? Give the name and symbol for each.
4. What do you notice about the location of these elements?
5. What do you notice about the number of valence electrons as you move from left to right across the row or period in the periodic table? (Na🡪Mg🡪Al🡪Si🡪 P🡪 S🡪 Cl🡪 Ar)
6. What do you notice about the number of energy levels or shells as you move down a group or column in the periodic table? (H🡪 Li🡪Na)
7. Write the name of each family at the top of the column on you periodic table using the following information:

Alkali Metals – 1 valence electron Halogens - 7 valence electrons

Alkali Earth Metals - 2 valence electrons Noble Gases - Complete outer shells

Boron Family – 3 valence electrons Carbon family – 4 valence electrons

Oxygen family – 6 valence electrons

1. What do you notice about the location of the elements in each family?
2. In what family would you classify hydrogen? Explain your choice.
3. Predict the number of valence electrons for each element based on its location in the periodic table.

Barium \_\_\_\_\_\_\_\_ Lead \_\_\_\_\_\_\_ Bismuth \_\_\_\_\_\_\_ Potassium \_\_\_\_\_\_\_\_\_