Name:

Period:

**Periodic Trends Homework (use your notes to help you!)**

Read and answer the following questions in Complete Sentences

1. Name three ways that Mendeleev’s Periodic Table is different than today’s Periodic Table.
2. Why could Mendeleev not arrange the elements in order of increasing atomic number?
3. Mendeleev left blank spaces on his Periodic Table. Why would he do this? What does “eka-Cesium” mean?
4. What are the horizontal rows called on the Periodic Table? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. How are they arranged (*what is the pattern*?)
5. What are the vertical columns called on the Periodic Table? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. How are they arranged? (*what is the pattern*?)
6. Who are the “Alkali Brothers?” Describe them (traits).
   1. On the back, draw the electron configuration (the rings) for **sodium**, an alkali metal. In order to fulfill the octet rule, what is sodium likely to do with its valence electron(s), and what will the charge be?
7. Who are the “Halogen Sisters?” Why are they described as the creepy, overly attached girlfriends?
   1. On the back, draw the electronic configuration for **chlorine**, a halogen. In order to fulfill the octet rule, what is chlorine likely to do with its valence electron(s), and what will the charge be?
8. Why are halogens and alkali metals so cute together?
9. Name three examples of alkaline earth metals. Describe their traits.
   1. On the back, draw the electronic configuration for calcium, an alkaline earth metal. In order to fulfill the octet rule, what is calcium likely to do with its valence electron(s), and what will the charge be?