

Packet 5C

1. How are ions formed? (one sentence answer is fine)
2. What is the difference between a cation and an anion?
3. Predict the charges for the following elements as ions:

Oxygen	Sodium	Copper	Arsenic
Bromine	Zinc	Iron	Calcium
Magnesium	Lead	Tin	Chlorine

4. Define ionization energy and give a simple explanation for the periodic trend.
5. Rank each set of elements in terms of ionization energy.

(use > and < signs)

a. Mg P Al Cl

b. Ge Sn C Si

6. Define electron affinity and give a simple explanation for the periodic trend.
7. Rank each set of elements in terms of electron affinity.

a. N F Be B

b. As Bi N P

Notecards

As a tool to remember the ion charges for different elements, you will select 20 elements from the periodic table and make note cards. Although this seems like a simple exercise, I do not want to answer the question “What’s the charge of oxygen?” when we begin looking at ionic compounds. My suggestion would be that you include several of the common transition metals, many of these elements do not follow the Octet Rule. You may make them as exciting as you wish, different colors are acceptable. I will merely check to see if you have done the job, the easiest 10 points you can get this year.