

**Ch8/ PowerPoint Study-3 Periodic Properties****Name:**

*Answer these questions as you are watching the videos. They are due in class.  
These questions are not just for you to answer but also to prepare you for the exam.  
Make sure you understand what you are writing and not just copy from the text book.*

1) Explain the following terms:

a) Ionization energy:

b) Electron affinity:

2) Within the pairs given below, circle the element with the indicated trend.

a) higher ionization energy:      Li or Be                      Na or K                      S or Br

b) higher electron affinity:      Li or Be                      Na or K                      S or Br

c) larger cationic radii:       $\text{Li}^+$  or  $\text{Be}^{2+}$                        $\text{Na}^+$  or  $\text{K}^+$

d) larger anionic radii:       $\text{S}^{2-}$  or  $\text{Cl}^-$                        $\text{N}^{3-}$  or  $\text{P}^{3-}$

e) Identify the ions/elements that are isoelectronic and write how many electrons the pairs have.

$\text{Li}^+$ ,  $\text{Be}^{2+}$ ,  $\text{Mg}^{2+}$ , Ne,  $\text{Cl}^-$ ,  $\text{S}^{2-}$ , Ar, F $^-$ ,  $\text{Na}^+$

f) Write three properties of metals that can help you distinguish them from non metals.

g) Circle the acidic oxides from the oxides given:  $\text{Na}_2\text{O}$      $\text{SO}_2$      $\text{NO}_3$      $\text{CaO}$