Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Period\_\_\_

**1st Ionization Energy Graph Lab Report Guide**

The Lab Problem: Graph the first ionization energy for elements 1 through 18. To best see the

 patterns, make this graph with a "connect‑the‑dots" line, not a "best‑fit" line.

The Data

 Atomic 1st Ionization

 Number Energy(electron volts)

 1 13.53

 2 24.46

 3 5.64

 4 9.28

 5 8.26

 6 11.22

 7 14.48

 8 13.55

 9 17.34

 10 21.47

 11 5.12

 12 7.61

 13 5.96

 14 8.12

 15 10.9

 16 10.3

 17 12.95

 18 15.68

Answer the following questions with the help of your graph and the periodic table.

 1.Describe any patterns you see on your graph.

 2.Do you see any relationship between the pattern

 of the graph and electron energy sublevels?

 3.How does this relate to what you know about

 the chemical activity of these elements?

