

Periodic Trend Graphs

Name _____ Period _____ Date _____

Objective: to investigate trends on the Periodic Table

Pre-Lab:

1. What is Ionization Energy
2. What is Atomic Radii
3. What is Electronegativity

Procedure:

Part A

1. You will create a graph using Data Analysis on the iPad of the Atomic Number of Elements in Group _____ vs. _____ (your assigned trend) according to the instructions below.
2. Open up the iPad open up the Elements (the icon of an Xe on it) program. Click on each element in your assigned group to collect the data.
****NOTE:** If you have **ionization energy**, click on the small red spinning poly gone at the bottom of the screen and scroll down to find ionization energy. Use the first number given.
3. Record your assigned info the data table below. You will need to fill in the header of the third column with your assigned trend (electronegativity, atomic radii, or ionization energy)

Element	Atomic Number	

4. Open the program "Data Analysis" on the iPad. Click "New Document". Your instructor or another student will show you how to set up your graph.
5. You will print your graph and attached it to this worksheet.

Part B

1. What does the slope of the line you created look like? (Does it decrease or increase as your atomic number goes up?)
2. Describe the trend for your assigned data:
As the atomic number goes **UP**, as you move _____ (up/down) a **group**, the _____ (electronegativity, atomic radii, or ionization energy) _____ (increases/decreases).

Part C

1. You will create a graph using Data Analysis on the iPad of the Atomic Number of Elements in Period ____ vs. _____ (your assigned trend) according to the instructions below.
2. Open up the iPad open up the Elements program (The icon of an Xe on it). Click on each element in your assigned group to collect the data.
****NOTE:** If you have **ionization energy**, click on the small red spinning poly gone at the bottom of the screen and scroll down to find ionization energy. Use the first number given.
3. Record your assigned info the data table below. You will need to fill in the header of the third column with your assigned trend (electronegativity, atomic radii, or ionization energy)

Element	Atomic Number	

Element	Atomic Number	

4. Open the program "Data Analysis" on the iPad. Click "New Document". Your instructor or another student will show you how to set up your graph.
5. You will print your graph and attached it to this worksheet.

Part D

1. What does the slope of the line you created look like? (Does it decrease or increase as your atomic number goes up?)

2. Describe the trend for your assigned data:
As the atomic number goes **UP**, as you move _____ (left/right) across a **period**, the _____ (electronegativity, atomic radii, or ionization energy) _____ (increases/decreases).

Part E

Find groups that graphed the other two trends. Look at their graphs and record the trends below.

_____ Trend

1. As the atomic number goes **UP**, as you move _____ (up/down) a **group**, the _____ (electronegativity, atomic radii, or ionization energy) _____ (inc/dec).

2. As the atomic number goes **UP**, as you move _____ (left/right) across a **period**, the _____ (electronegativity, atomic radii, or ionization energy) _____ (inc/dec).

_____ Trend

3. As the atomic number goes **UP**, as you move _____ (up/down) a **group**, the _____ (electronegativity, atomic radii, or ionization energy) _____ (inc/dec).

4. As the atomic number goes **UP**, as you move _____ (left/right) across a **period**, the _____ (electronegativity, atomic radii, or ionization energy) _____ (inc/dec).