Name: Graphing Periodic Trends Lab

Using Reference Table S and your chromebook, create data tables for each trend with respect to Atomic Number. Your lab report should include 6 separate data tables and 6 graphs. You can make multiple tabs on Google Sheets.

On separate google sheets:

1. Graph Group 1’s and Group 17’s First Ionization energy with respect to the Atomic Number. Make sure you label which line belongs to which group.
2. Graph Period 2’s First Ionization energy with respect to the Atomic Number.
3. Graph Group 1’s and Group 17’s Electronegativity with respect to the Atomic Number. Make sure you label which line belongs to which group.
4. Graph Period 2’s Electronegativity with respect to the Atomic Number.
5. Graph Group 1’s and Group 17’s Atomic Radii with respect to the Atomic Number. Make sure you label which line belongs to which group.
6. Graph Period 2’s Atomic Radii with respect to the Atomic Number.

Create separate data tables for each of the 6 graphs

Post Lab Questions:

1. Define First Ionization Energy.
2. Define Electronegativity.
3. What is Atomic Number?
4. For each graph, explain why Atomic Number was our independent variable.
5. How does the Atomic Radius dictate the other 2 trends?

Conclusion: Your conclusion should include the following:

* A statement about what you learned about graphing.
* Describe the general slope of each line on every graph.
* For All 6 graphs, Explain the trends IN TERMS OF “increasing Atomic Number”
* Explanations of the trends for First Ionization Energy (for both period and group) based on the number of occupied energy levels and the nuclear charge (# of Protons).