

Name: _____

Date: _____

Purpose: We will create a graphical representation of the trends on the periodic table.

Instructions:

- 1) Access the two files under “Project – Periodic Trends” in Canvas.
- 2) You will be responsible for graphing “Atomic Radius,” “First Ionization Potential,” and “Electronegativity” versus atomic number. You will graph each trend by hand and upload screenshots of your work.
- 3) Create graphs for the first 36 elements on the periodic table. Use the atomic number of each element as the x-axis and plot the chosen property on the y-axis.
- 4) Give your graph a title that is centered and at the top. Label the y-axis with the proper units (angstroms for atomic radius, kJ/mol for first ionization potential, and Pauling units for electronegativity) for the given trend. Label both the x- and y-axis with proper titles.
- 5) Connect the points on your graph with lines to easily show your trends.
- 6) Choose one of the three properties and write a brief explanation (one paragraph, 5-7 sentences) that summarizes the underlying causes of the trend. Use principles of atomic structure to explain any trends that you see in the graph.

Rubric:

<p>Graphs (15 points)</p>	<ul style="list-style-type: none"> ● Are the graphs clearly labeled, and do they have titles/labels? ● Do the graphs accurately represent the values for the chosen property? ● Are they easily readable and bold?
<p>Explanation (5 points)</p>	<ul style="list-style-type: none"> ● Can the trend in the chosen property be explained by the student using underlying chemical principles? ● Can the student connect the data graphed to the trend observed in the elements for the property? ● Are thoughts well-written and without grammar mistakes?