

## MP2 Technology Lesson

During the 2<sup>nd</sup> MP we covered Periodic Table Trends in a unit. In order to introduce the idea that there are repeating patterns – trends - in the Periodic Table, I tasked students with creating their own graphs using Google Spreadsheets. Personally, I had always been used to Excel, so doing this lesson was beneficial to both the students and myself, so that I could become familiar with the specifics of Google Spreadsheets and how it varies from Microsoft Excel.

Students were given a tutorial on how to create a graph in Google Spreadsheets. Each student had a Chromebook and we created sample graphs together, while I modeled the process via the projector. Students were then given 4 sets of data on the first 36 elements on the Periodic Table (the first 4 rows, or periods). Students entered the data into different sheets and created graphs of the data. Students were then tasked with formatting the graph properly so that the graph could be interpreted correctly.

In each graph students were able to see the “periodic trends” associated with four properties – Atomic Radius, Ionic Radius, Electronegativity and Ionization Energy – and were able to accurately deduce what the trends were in each period (row) and group (column) on the Periodic Table. Students had analysis questions to answer based on these graphs, and were asked to draw simple conclusions about each property, so that we could generalize each trend for rows and groups. (Ex. Based on Graph 1, it can be said that the atomic radius of an atom decreases as we move across a period and increases as we move down a group on the Periodic Table)