Data Integration

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The data I will be using to increase engagement and understanding in my 7th grade environmental lessons is regarding rising sea levels. There are several aspects to this NASA data, but most importantly for middle school is the lengthy explanation that assists in understanding the provided data. Raw data regarding decrease in glacier size is included, as well as a summary allowing for more contextual inclusion in a lesson. Such an explanation is necessary for middle school students, who may be given this data in a graph form for the first time in my science classroom (I have found this to be true the last four years in my district.)

This information enhances arguments for global warming in 7th grade, and provides excellent data to model argumentation with students. For example, I utilize CER responses in my classroom. I could model a claim by stating “Global warming is causing sea levels to rise. As the decrease in glacier ice (caused by temperatures rising) correlates to a higher sea level. I know this because the NASA data shows sea levels rising consistently through the last thirty years.” I would anticipate having different groups of students (often by level of ability) analyze a different piece of data to explain to their class with specific claim.

This data source lends itself to middle school; I can easily rationalize it in my classroom due the ease in its presentation, and excellent understanding. With middle school I enjoy utilizing data sets like this; the majority of data I come across is too high level to share with middle school and is more applicable to high school students. With the multiple graphical displays and numerical data it aligns with math, and in comparing relationships between multiple variables. Advanced students could take this further by graphing out data points on an Excel sheet, allowing further understanding of independent and dependent variables. Additionally, with guided CER statements this type of data set can be utilized in a Language Arts classroom as well.

Sources:

NASA. *Understanding Sea Level. (2022.)*

https://sealevel.nasa.gov/understanding-sea-level/by-the-numbers/