

McAfee

My student presentation will cover my lesson implementation of a NASA resource called NASA Data Literacy Cubes in my classroom. Students examined a total of 3 different graphs and compared it to the happenings of our first graph, carbon dioxide levels. I used a pedagogical approach once shared with me by an elementary school teacher that effectively models a new procedure for your students. The I Do- We Do- You Do Approach is a gradual release process where you first model for the students what the procedure looks like for the students, next you complete a problem with your students, and lastly relinquish control once you're sure students have mastered the procedure. Doing this for the data cubes was highly effective because it left little room for confusion and modeled what it looks like to effectively analyze the graph. I modeled with a graph that examined the carbon dioxide levels in Earth's atmosphere over the last century, then when I relinquished control of the data cubes I had students examine one of three graphs (all NASA data) to help us understand the effects of changing carbon dioxide levels on Earth.

These cubes effectively scaffolded questions for students to ask about the graphs in order to more deeply analyze the data at hand. They increased the rigor of this assignment greatly. Before when we look at graphs in class, it is hard to get students to move past observing whether there is an increase or decrease trend, so this was highly effective at prompting students to go deeper. I think students also enjoyed the NASA data cubes because they gave the assignment a fun spin, which comes from the excitement of not knowing what you will roll next (not to mention students LOVE to flip things). The combined benefit of student engagement and increased scaffolding for questioning graphs leaves this resource as a must-use again in my book. The only improvement I can think of would be on my lesson planning itself- I should have a more formal assessment where students extrapolated the data by comparing the two graphs first before our classroom discussion.