

Link to resource: [Earth System Data Explorer](#)

I picked this resource because it has a great way of allowing students to observe data from both a visual tool (map) as well as the option to generate their own data table comparing two different dates or locations. I would definitely ask my students to filter the data options to the following: biosphere > phytoplankton>monthly chlorophyll concentration. I would ideally use this for my biology students during our photosynthesis unit to draw the connections between chlorophyll and carbon in the atmosphere. I would also use it to demonstrate the standards relating to climate change (viewing the changes of the concentration levels over the years). I would just have to create an exploratory/analyzing handout to be paired with the tool so students have a guide/standard reinforcement. Not only is this data a real-life scenario and applying to class concepts, it also is fairly recent. Students are not seeing data from 30-40 years ago, instead they are viewing dates within their lifetime (last 10 or so years). This will boost engagement to be relatable to them. I would also allow discussion time in class via a gallery walk and then a whole class share-out. This way students can showcase what they found and see how they compare to their peers (what can be improved or changed). It is a simple peer-peer feedback tool and puts the heavy lifting on the students. I would facilitate the discussion of course by asking thought-provoking questions to reach their maximum critical thinking skills. I could potentially also use this for chemistry classes but apply it to a chemical standpoint. For example, I could introduce the concept of elements by using this data because chances are students have heard of carbon but they can see a real-life application in another way they may or may not have seen.