Data Integration Assignment - Wendy Martinez

Data source: SPECIFIC links for access.
Earth Observatory: Chlorophyll
My NASA Data Phytoplankton distribution

Lesson Enhancement: Ok - so maybe I am cheating, but I was super pumped to find these two sites to help illustrate to students that all energy begins with the sun, and then plant life follows close behind. Students do a fine job of mapping the In and Out cheeseburger and animal fries back to the sun, the plants, and so on. They have much less understanding about what value the microscopic plants in our very own ocean bring. Later in the school year our students will grow various types of algae as a part of the Algae Academy lessons. They will grow, track and evaluate data based on the biomass of their culture. These models and data will prepare them for a much better understanding of plant life on Earth.

Interdisciplinary context: The data here is very useful. There are graphs and tables to interpret, and even decimals (A 5th Grade math standard!) to compare. We are always trying to incorporate math into other lessons being taught. One of the first things I would do is ask the students to describe in writing what is happening in the computer model. They would need to describe in words, using scientific terms what the images show across time. They would then go back and research what might have been happening in the world to explain why these shifts might have occurred. The mathematical data would help them delineate specific periods of time where Chlorophyll/Phytoplankton are strong or weak. So far, we are talking about the environment, science, research skills, writing skills, and math skills. I can also picture a couple of good art lessons that could be inserted here, and a creative writing assignment, “Zooplankton bumper stickers”. If I had known this information was available last year while teaching about photosynthesis and respiration, my lessons would have been more accessible!