My NASA Data - Mini Lesson/Activity

How are Phytoplankton and Sea Surface Temperatures Related? (Student Activity)

Student Directions

Virtual Teachers: Make a copy of the Google Form of your choice so that you may assign it directly from your Google Drive into your Learning Management System (e.g., Google Classroom, Canvas, Schoology, etc.). Do you need help incorporating these Google Forms into your Learning Management System? If so, read this Guide to Using Google Forms with My NASA Data.

Directions:

1. Analyze the Chlorophyll Concentrations color bar legend provided. Describe what the color bar legend represents.
2. Describe where you observe the highest concentrations? Lowest?
3. What factors do you think control where phytoplankton are distributed?
4. Now, analyze the Sea Surface Temperature mapped image, paying specific attention to the color bar provided and answer the following questions.
Sea Surface Temperatures (Credit: NASA Earth Observatory)

1. Where do you observe the highest concentrations? Lowest?
2. What do we call the waters that are found here?

6. Answer the following questions:

1. Where are the highest concentrations of chlorophyll generally located? Do the trends that you observed in the Northern Atlantic also occur in the Southern Hemisphere?
2. How do the values of chlorophyll change over the seasons?
3. Why do you think that the polar regions experience these changes during the spring/summer seasons?

 Teachers, these mini lessons/student activities are perfect "warm up" tasks that can be used as a hook, bellringer, exit slip, etc.

Teachers who are interested in receiving the answer key, please contact MND from your school email address at larc-mynasadata@mail.nasa.gov. We verify that requestors are teachers prior to sending access to the answer keys as we’ve had many students try to pass as teachers to gain access. To receive the keys please provide the following:

1. The link to the school/institution’s teacher directory where you are employed so we can verify that you are a teacher
2. Ensure that the school email address is provided in your response as we are unable to send to personal email accounts