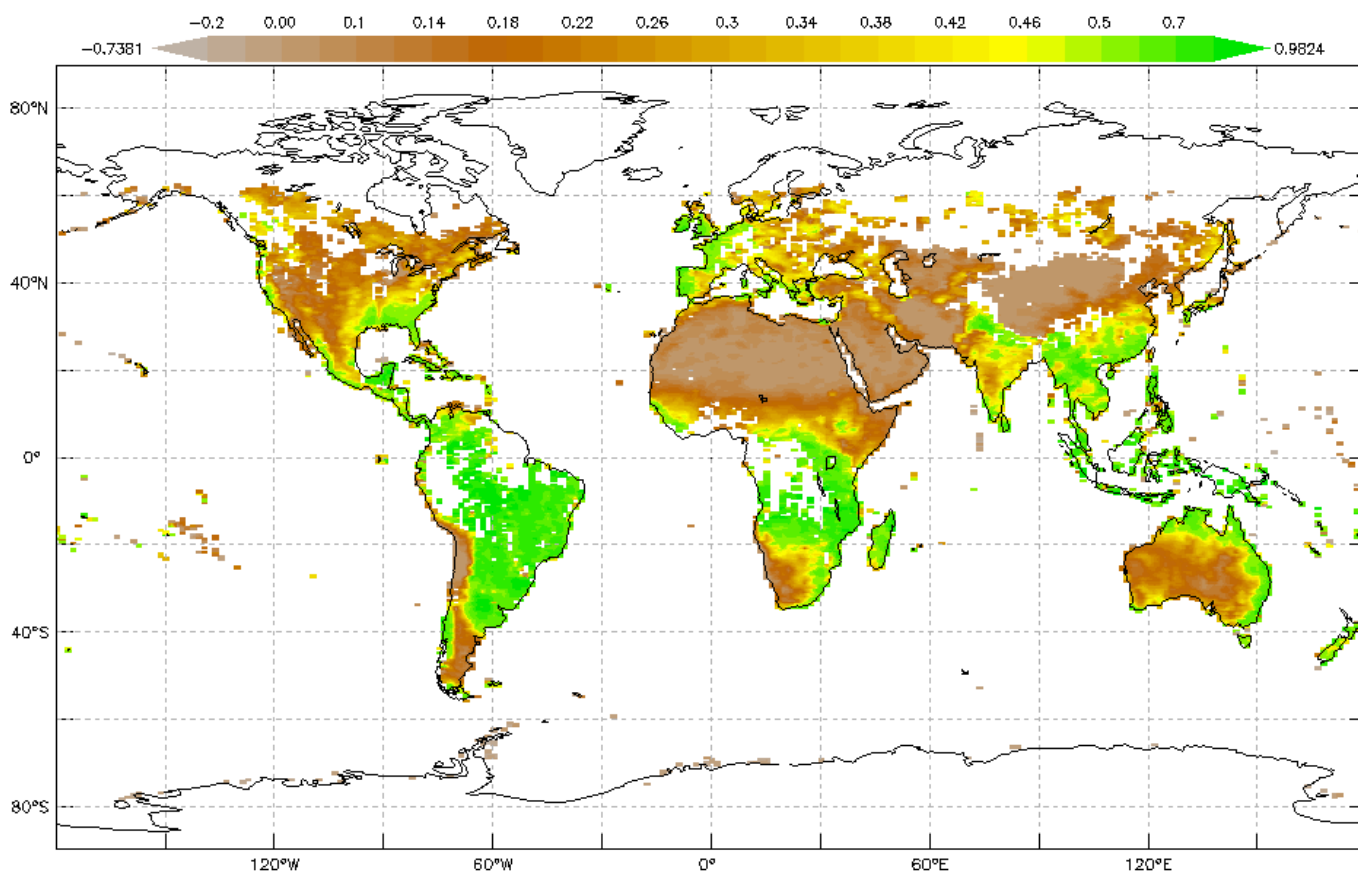


My NASA Data - Mini Lesson/Activity

Analysis & Application of Seasonal Vegetation Data: Student Activity

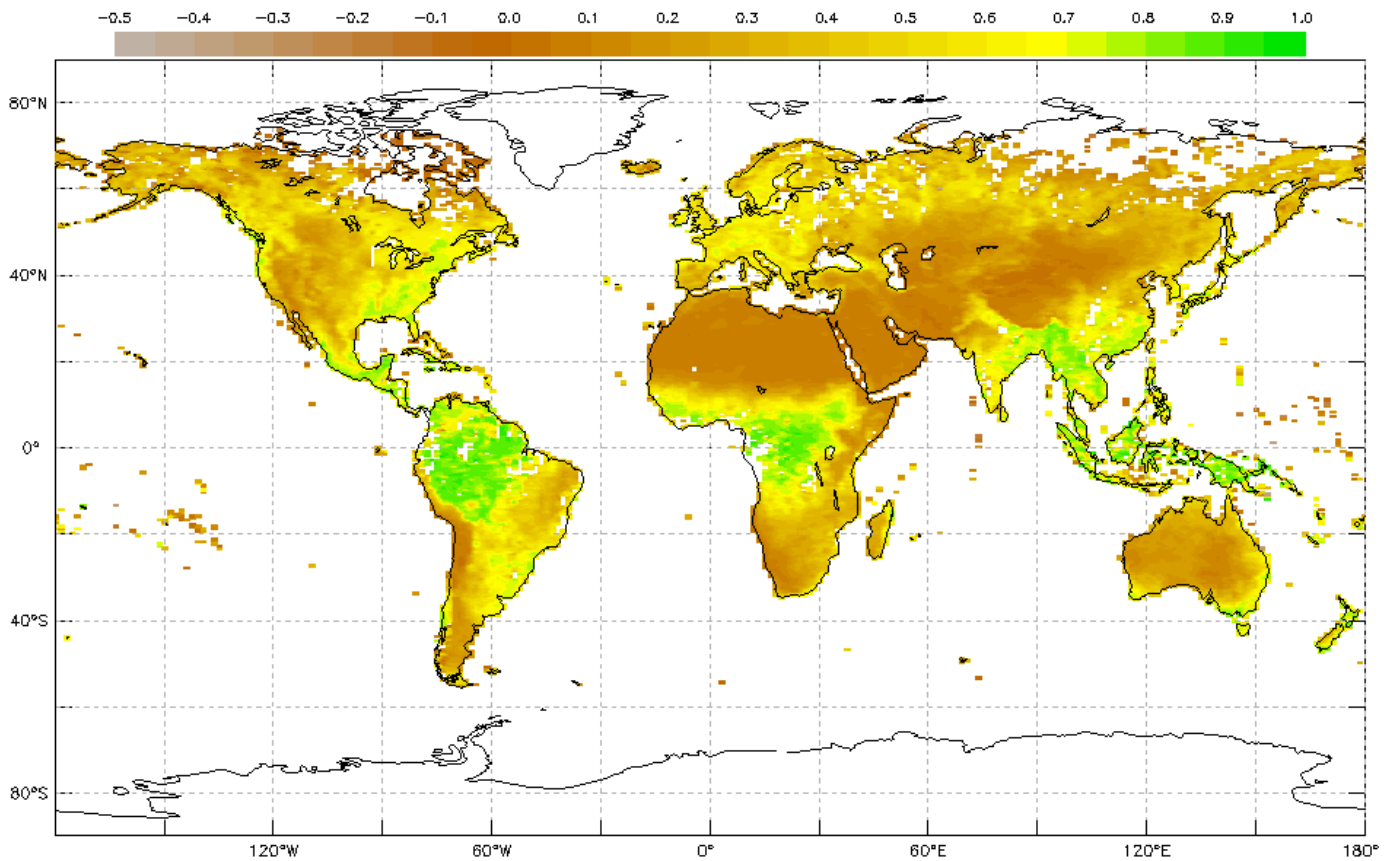


Student Directions

Directions: Students will observe seasonal maps of Monthly Normalized Difference Vegetation, known as NDVI - a measure of the "greenness" of Earth's landscapes and match to four different months of 2017. These maps will be offered in the Google Slide deck or in handouts provided by your teacher.

Teachers: The images can be downloaded, printed, and distributed in a Face-to-Face setting, along with the questions below. Alternatively, virtual learners will need to access the Google Slide to view the maps.

You will analyze these data for any changes in vegetation that are occurring throughout the year.



The colors on this maps show a measure of the "greenness" of Earth's landscapes. The values on these maps—ranging from -0.1 to 0.9—have no unit. Rather, they are index values in which higher values (0.4 to 0.9) show lands covered by green, leafy vegetation and lower values (0 to 0.4) show lands where there is little or no vegetation.

1. The vegetation maps (Images A-D) were created to represent the following time periods: February 2017, June 2017, October 2017, and December 2017 but are not in order. Match the maps with their corresponding months from 2017 based on your observations. For example, Map X = February 2017, etc.
2. Identify the seasonal cycles for vegetation throughout the year by answering the following questions.
 1. What changes do you see through the year?
 2. Choose a location or region. During which months do the extreme highs and lows occur? What explanations can you suggest for the timing of those extremes?
 3. Which regions experience both the extreme highs and lows? Which regions don't experience the extremes? Why do you think this happens?

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

Access and Explore Data

- [Monthly Normalized Difference Vegetation Index \(MISR\)](#)