In this video, Dr. Brad Hegyi discusses his thought process for analyzing data. He introduces ways to approach data to find interesting stories. He identifies five steps for a data exploration or “data dig”. He explains the first two steps in this video. The other steps are explained in UnEarthing Data: Phytoplankton Part 2. Note that the data he uses in this video are displayed on a map. You may not have thought about a map showing data, but these maps do just that.
There are multiple options to distribute the questions to students including a Google Form or a Google Doc.

1. What are the five steps to a successful “data dig”?
2. How should you prepare for the “data dig”?
3. What data set is Dr. Brad using?
4. How does the description help with understanding the data?
5. What guiding questions did Dr. Brad use to help understand the data?
6. Identify at least one pattern in the data?
7. What patterns are oriented east to west?
8. What patterns are oriented north to south?
9. What advice did Dr. Brad give for comparing data from different seasons?
10. What kind of pattern consistently appears every month?
11. What kind of pattern appears over and over with the seasons?

In addition, the following glossary is provided for students who need vocabulary support.

- **anomaly** - something that differs from the normal or standard value
- **concentration** - the amount of something in a solution or area
- **cyclic changes** - appear over and over again
- **Equator** - imaginary 0° line around Earth that divides it into the northern and southern hemispheres
- **hemisphere** - half the Earth, usually north and south or east and west
- **meridional** - patterns oriented north and south
- **polar** - relating to the poles of Earth
- **phenomenon** - an observable event or situation
- **seasonal change** - same in the same month/season each year
- **stability** - consistently appear every month
- **subtropics** - regions bordering the tropics
- **zonal** - patterns that are oriented east and west

Teachers who are interested in receiving the answer key, please contact MND from your school email address at larc-mynasadatal@mail.nasa.gov.