In Unearthing Data: Phytoplankton Part 2, Dr. Brad Hegyi explains the last three steps of a "data dig". These steps will guide students in some techniques for asking and answering questions before summarizing their results. The first three steps were discussed in the video UnEarthing Data: Phytoplankton Part 1. Note that some of the data he uses in this video are displayed on maps.
There are multiple options to distribute the questions to students including a Google Form or a Google Doc.

1. The last three steps of a “data dig” are all about connections. What are these steps?
2. Dr. Brad shared a template for asking questions. What did it include?
3. When investigating relationships between data sets, what is it important to remember?
4. What data sets from the Earth System Data Explorer did Dr. Brad suggest might be related to chlorophyll concentration?
5. Dr. Brad discussed several ways to come up with the “right” question. He makes it clear that you could come up with different questions. What does he mean by the “right” question?
6. Describe the types of evidence that Dr. Brad discussed?
7. How can the Earth System Data Explorer be used to explore correlation and co-location?
8. When Dr. Brad talks about a “Data Picture”, he does not mean a graph, chart or illustration. He is referring to “putting it all together”, or your overall understanding of your investigation. What is another term you could use for creating a data picture?
9. What is one question you can answer to help create your data picture?
10. What is a common misconception about correlation?

Extension:

After watching both videos, students can match data literacy skills with the five steps of a “data dig” in the UnEarthing Data Activity.

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

- causation - causing or making something happen
- co-location - in the same location at the same time
- misconception - common misunderstanding
- correlation - relationship between two variables
- phenomenon - an observable event or situation
- time series - a graph of data that are measured over time. Time is usually on the x axis.
- variable - In this context, it is the data set associated with one aspect of an investigation. It can be the data set for an independent or dependent variable.

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