The Need for Data Literacy

My NASA Data (MND) recognizes the importance of data literacy, especially in the Earth Sciences because data are the foundation of science. But what does data literacy look like?

*Data-literate* people are able to understand, explain, and document the use and limitations of data. They find meaning in data and make informed actions based on it. These citizens collect their own data, identify data based on key characteristics, analyze, interpret, and present data. They also know how to protect data.

21st Century students must develop the skills to solve the complex problems facing their generations. As outlined in the 2018 Executive Plan for building American STEM education ([Office of Science and Technology Policy](https://www.whitehouse.gov)), our classrooms must provide opportunities for students to grow their analytical and critical thinking skills with statistical methods so that they can understand the problems that need solving. MND offers resources and tools to help teachers integrate this computational thinking using NASA Earth science visualizations, data, and more!
Let My NASA Data Help!

At MND, we provide resources to help learners analyze and interpret real-world Earth science data, one of the eight science and engineering practices. Coupled with the skill of constructing explanations based on evidence, MND is a platform to help students access the evidence they need to make evidence-based decisions about changes in the Earth System.

IBM claims that over 90% of ALL data in the world was created since 2012 and quintillion bytes of data are created every day. No matter if the data collected from a personal fitness device, sensors in homes or offices, or payloads orbiting the Earth continuously collecting data, *big data is here to stay.* NASA guarantees that no matter what careers your students take, data analysis and interpretation will be an important skill to have. Let MND help you!

Educators, consider using the My NASA Data Literacy Cubes to guide students’ exploration of graphs, maps, and datasets to enrich their observations and inferences.
Data Literacy Cube sets:

- There are sets for three different cube types. Each cube type has an icon associated with it. Icons are displayed on the right side of My NASA Data pages to indicate which cubes could be used with the content on the page. It is also possible to search content by cube type.
  - Maps
  - Graphs
  - Data

- Each cube type has leveled questions to help you differentiate your instruction. The guides contain labeled versions and unlabeled versions of the question for you to use at your discretion. See the bottom left of the labeled question sheets for the designations of the levels.
Source:


Teacher Resources:

- Partners in Data Literacy (formerly the Maine Data Literacy Project)
- Michigan State University's Data Nuggets