

Components of the assignment:

**Data source:** [My NASA Data- Earth System Data Explorer](#)

**Lesson Enhancement:** In 5th grade, we learn about Earth's major systems (Atmosphere, geosphere, hydrosphere, and the biosphere) and how they interact. This data exploration tool allows students to see data over significant periods of time and connect it with other scientific phenomena/concepts that they've heard about (global warming, for example.) Currently, when I teach this topic, I use mostly diagrams and graphic organizers to help students see relationships and patterns, but my goal with incorporating this new tool is to make it more student-led and exploratory. They can interact with the site and draw conclusions for themselves instead of me telling them about relationships.

**Interdisciplinary context:**

ELA & Social Studies: Relevant content reading and writing, then create a podcast episode using garage band on student iPads all about how a natural disaster (a good example of interactions between systems) also affects humans socially, economically, monetarily, etc.)

Math: Directly cite and plot interactions using data gathered. Can also use as part of a CER in their podcast episode.

Engineering: 3D models, diagrams, or demonstrations