My NASA Data - Lesson Plans

Hurricane Dynamics: Data Literacy Cubes

Grade Band

- 3-5
- 6-8
- 9-12

Time

• 30 minutes

Overview

This Lesson Plan provides maps, graphs, and data tables for use with the Data Literacy Cubes. Because it is a differentiated resource, it is appropriate for multiple grade bands.

Materials Required



Refer to the <u>Data Literacy Cube Guide</u> for the cube template, questions sheets, question forms and optional team task roles.

- Cube template
- Selected question sheets for Google Forms
- 1 sheet of paper per student
- Pencil
- Graph (as a handout or projected on the screen)

Teacher Preparation:

- 1. Print copies of the cube on cardstock and cut out.
- 2. Assemble the cube with glue.
 - Consider laminating after you cut these out for multiple uses.
 - Gaming dice may be substituted for the cubes.
- 3. Also, print off copies of the differentiated Graph Cube Questions if you are not using the Google Forms.
- 4. Distribute to students for group or independent work.

Procedure

Steps:

- 1. Distribute your Earth science Map, Graph, or Dataset to the group or groups of students as well as provide the data cube (or regular die).
- 2. Distribute the appropriate-leveled question sheets to each group or use the Google Forms.
- 3. Optional: Assign each student a role from the task card for each group.
- 4. Instruct the students to roll the cube once.
- 5. Answer one question found under the matching question on the Question Sheet. (If more room is needed, have students use a sheet of paper, labeling the question with the number and letter of the question.)
- 6. Repeat Steps 2 thru 4 until at least 4-6 are answered.
- 7. Have each group share their findings with another group (or with the class) after completing their question sheet.
- 8. Monitor student progress and assign new level sets as students reuse the cubes throughout the year.

NGSS Three Dimensional Learning

NGSS Disciplinary Core Ideas

ESS2D: Weather and Climate

ESS3B: Natural Hazards

NGSS Crosscutting Concepts

Patterns

NGSS Science and Engineering Practices

- Developing and Using Models
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Obtaining, Evaluating and Communicating Information

Teacher Background Information

For more information about how to use the Data Literacy Cubes, visit our YouTube page and watch the <u>Data Literacy Cubes playlist</u> tutorials.

Teacher Resources

Hurricane Dynamics Maps, Graphs and Data

