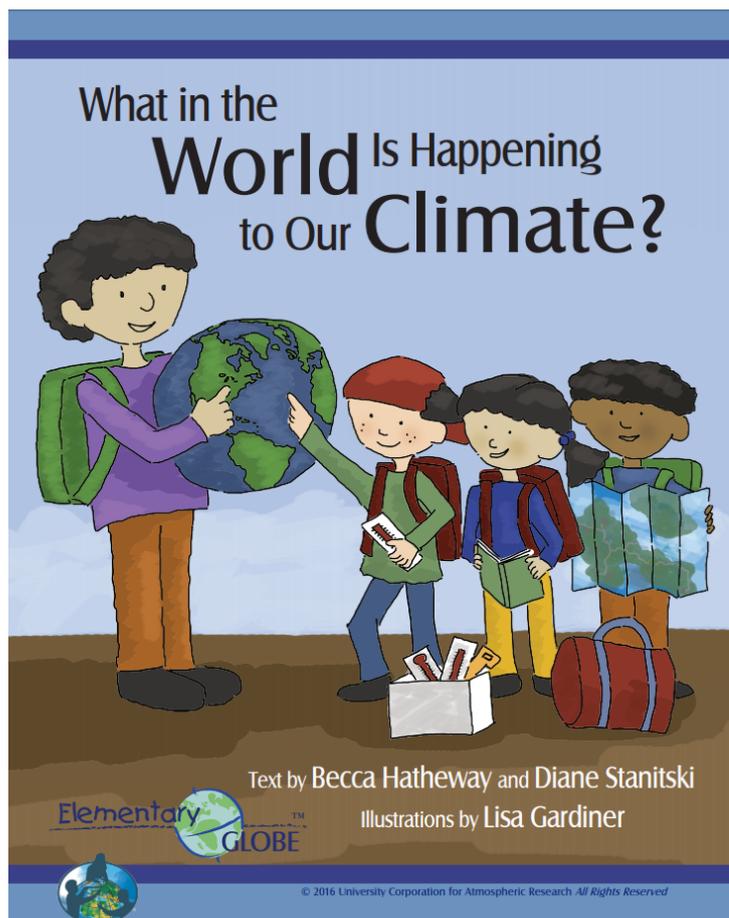


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## My NASA Data - GLOBE Connections

### Sea Level Rise: Elementary GLOBE

**Climate Module**: **What in the World is Happening to Our Climate?** This storybook follows the GLOBE Kids as they take an adventure and learn that climate change affects the whole world, from the tropics to the poles. Through learning activities, students learn how weather over a long period of time describes climate, explore how sea level rise can affect coastal communities and environments, and describe how humans are contributing to climate change and how we can take action to solve this problem.



#### **Elementary GLOBE Learning Activity:** [Seashores on the Move](#)

Overview: This activity is comprised of four parts. In Part 1, students read the Elementary GLOBE book *What in the World is Happening with Our Climate?* and review the cause of sea level rise. In

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Part 2, students build a model of a coastal community. In Part 3, they make predictions about what features will be at risk of flooding as sea level rises and test their predictions by raising the sea level in their box. In Part 4, students plan for changes that will help keep their community from flooding.

Standards Alignment:

- NGSS PE K-ESS3-3 Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
- NGSS PE 2-ESS2-1 Compare multiple solutions to slow or prevent...water from changing the shape of the land.
- NGSS PE 2-ESS2-2 Develop a model to represent the shapes and kinds of land and bodies of water in an area.
- NGSS DCI ESS3.C: Human Impacts on Earth Systems
- NGSS DCI ESS2.C: The Role of Water in Earth's Surface Processes
- NGSS ETS1 A: Defining and Delimiting an Engineering Problem (K), B: Developing Possible Solutions (K), C: Optimizing the Design Solution (2)
- NGSS Science and Engineering Practices: •Developing and Using Models •Obtaining, Evaluating and Communicating Information
- NGSS Crosscutting Concepts: Cause and Effect, Stability and Change

**Elementary GLOBE Learning Activity:** [We're All Part of the Solution](#)

Overview: This activity is comprised of three parts. In Part 1, students will learn about greenhouse gases and how an increase in greenhouse gases due to human activity is causing the climate to change on Earth. In Part 2, students will use a carbon footprint calculator to evaluate the greenhouse gases they are emitting. In Part 3, students will develop ideas for how their home, school, and community can reduce greenhouse gas emissions, and they will share these ideas with others.

Standards Alignment:

- NGSS PE K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
- NGSS DCI ESS3.C: Human Impacts on Earth Systems
- NGSS ETS1 A: Defining and Delimiting an Engineering Problem (K), B: Developing Possible Solutions (K), C: Optimizing the Design Solution (2)
- NGSS Science and Engineering Practice: Obtaining, Evaluating and Communicating Information
- NGSS Crosscutting Concept: Cause and Effect

## Sphere(s)

- [Hydrosphere](#)

## Phenomenon

- [Sea Level Rise](#)

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## Document Resources

### Document Resources

- [We're All Part of the Solution](#)
- [Seashores on the Move](#)