

## Science and Stories: Our Everglades, Our Water

### Lesson Plan: Grades 4 – 8

#### Materials:

Computer or tablet  
Internet connection  
“Our Everglades, Our Water” fact sheet  
“Science and Stories - Our Everglades, Our Water Worksheet - Grades 4 – 8”

#### Essential Questions:

Where does our water come from?  
What is the relationship between the Everglades and our water?  
How have humans altered the Everglades ecosystem?  
What makes a compelling story?  
How does listening to a story feel different from listening to information?  
How can science benefit from storytelling?

#### Lesson:

1. Ask students to share their favorite science stories.
  - a. Encourage them to share whether they have one or not.
    - i. For students who don't have a favorite science story – why don't they? Have they heard a science story? If they don't like the science stories they've heard, why not?
    - ii. For students who do have a favorite science story – what about the story makes it interesting or exciting?
  - b. Record the answers on the board or affirm them out loud, drawing attention to what makes an “interesting” story or an “uninteresting” story.
2. Share that today, the class will be learning about how to tell stories about science and that they will be telling a story about the Everglades.
3. Pass out the “Science and Stories - Our Everglades, Our Water Worksheet - Grades 4 – 8” and ask a student volunteer to read the information in the orange box or read the information aloud.
4. Ask students to think about the phrase “science-communicator”. Consider asking: What would a science-communicator do? What kinds of people might be science-communicators? Is a scientist necessarily a science-communicator?
5. Ask students to think about and answer the first question: What do you think about when you think about the Everglades? Ask student volunteers to share answers aloud.
6. After reading the introductory information, ask students to think about and answer the second question: Write a few lines that illustrate the importance of water in your life, or that illustrate the importance of water in your community
  - a. Students may talk about washing dishes, watering lawns or gardens, drinking water, taking showers or baths, flushing toilets.
  - b. For students who need a challenge, encourage them to think of commercial or industrial water uses – farms, laundromats, golf courses, restaurants, etc.

7. Share the “Our Everglades, Our Water” fact sheet. Explain that students will be reading a fact sheet about the Everglades that’s going to share information about the Everglades and South Florida’s water. The fact sheet is a hyperdoc, which has links to videos and images that will help them understand the text better.
8. Guide the students through the rest of the “Science and Stories - Our Everglades, Our Water Worksheet - Grades 4 – 8” worksheet, scaffolding and providing accommodations as necessary.
  - a. For example, if students need help practicing the “ABT framework”, ask them to develop examples using books they’ve read in class or movies they’ve seen.
9. After students have finished, offer options for sharing a finalized form of their Everglades story.
  - a. One option is sharing their story with their Congressperson during Earth Week, April 19, 2020 – April 26 2020.
  - b. There are directions and a link on the worksheet that will take students to a page where they can type in their name and address and write a letter that will be sent directly to their Congressperson. The link is: <https://bit.ly/evergladesstory>

## Standards:

### 4<sup>th</sup> Grade:

**SC.4.E.6.3** Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.

**SC.4.E.6.6** Identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).

**SC.4.L.17.4** Recognize ways plants and animals, including humans, can impact the environment.

**LAFS.4.RI.1.2** Determine the main idea of a text and explain how it is supported by key details; summarize the text.

**LAFS.4.RI.1.3** Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

**LAFS.4.RI.3.7** Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

**LAFS.4.RI.3.9** Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

**LAFS.4.W.1.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

**LAFS.4.W.2.4** Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

**LAFS.4.W.2.5** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

**LAFS.4.W.3.9** Draw evidence from literary or informational texts to support analysis, reflection, and research.

**LAFS.4.W.4.10** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

### 5<sup>th</sup> Grade:

**SC.5.L.15.1** Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations

**LAFS.5.RI.1.2** Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

**LAFS.5.RI.3.7** Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

**LAFS.5.RI.3.9** Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

**LAFS.5.W.1.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

**LAFS.5.W.2.4** Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

**LAFS.5.W.2.5** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

**LAFS.5.W.3.9** Draw evidence from literary or informational texts to support analysis, reflection, and research.

### **6<sup>th</sup> Grade:**

**SC.6.E.6.2** Recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas, and lakes and relate these landforms as they apply to Florida.

**SC.6.N.1.5** Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.

### **7<sup>th</sup> Grade:**

**SC.7.L.17.3** Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.

**SC.7.E.6.6** Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.

### **8<sup>th</sup> Grade:**

**SC.8.N.4.1** Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.

**SC.8.N.4.2** Explain how political, social, and economic concerns can affect science, and vice versa.

### **Language Arts for Science, 6<sup>th</sup> – 8<sup>th</sup> Grade:**

**LAFS.68.RST.1.2** Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

**LAFS.68.WHST.1.2** Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

**LAFS.68.WHST.2.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

**LAFS.68.WHST.3.9** Draw evidence from informational texts to support analysis reflection, and research.

**LAFS.68.RST.1.2** Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.