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Stories and Science: The Everglades

"[The] inability, or perhaps unwillingness, to use language and writing techniques more suitable to the layperson has only widened the divide and fueled the mistrust that has come to surround scientists and their secret, intimidating world. It's come to the point where one could argue that research has become increasingly irrelevant to the public, and you don't have to look far to find a clash between popular opinion and scientific fact. It's startling that in this age of information, science is essentially inaccessible and the stereotype of cold, unfeeling scientist is perpetuated. To overcome this, we need a different approach.

"I think it a mistake to think of narrative as something distinct from science communication," adds [Professor Mike] Jones. "Humans are naturally predisposed to understand the world in narrative terms—characters existing in the world, linked together via a plot, causing things to happen (or not), all the while organizing emotional responses by both the sender and receiver of the story. This is essentially what science does too. Perhaps the difference is that scientists go out of their way to tell bad stories, stories with little to no emotion, sterile, or objective."[1]

There's a growing understanding that science needs science-communicators: people who can translate research and scientific facts for larger audiences.

A science-communicator can speak to people like elected officials, who make important decisions about these issues, or the general public, to help them better understand the science. In this exercise, you are going to be a science-communicator for the Everglades, telling the story of the Everglades and South Florida's water to an audience of your choice.

Step 1: Do a Little Research
Everglades 101

Telling a story about science doesn't mean making things up, or changing facts to make them seem more exciting. It means talking about the facts in a way that people can relate to them. To start, you want to make sure you have the facts you need to tell a complete story. In this case, you'd want to read about the Everglades, the relationship between the Everglades and water, and solutions that can help.

We've put all that information in an **Our Everglades, Our Water fact sheet** for you.

Read it over and underline, highlight, or take notes on:

1. Points that show why the Everglades is important to people who live in South Florida
2. Problems the Everglades has faced and is facing
3. Solutions to those problems

For additional information, you can check out this article:

WLRN article: Everglades 101: Just How Does This Thing Work Anyway?

[1] Corless, V. (2019, November 14). The Role of Narrative in Science. Retrieved from https://www.advancedsciencenews.com/the-role-of-narrative-in-science/

Step 2: Frame the Message/Pre-Writing Exercise

Now you're almost ready to write the story. The next step is picking an audience.

Who is this story meant to be told to?

- If you're thinking about sharing with your Congressional representative, there's a link at the end where we'll help you write to them.

Pick your audience and write it here: _____

Now, map out the goals of your story by answering the following:

Audience: What do you know about the audience? What values and experiences do they have that you might be able to appeal to? What keeps them up at night? If you don't know specifics (for example, you might not know your Congressional representative), think about general values and experiences someone in their role might have.

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Speaker: You! How do you want to represent yourself? As a student, a nature-lover, an aspiring business owner, a longtime resident of your city, county, or state? Consider which parts of your identity will help the audience connect with you as you talk about this issue.

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Purpose: At the end of your story, you want people to know and *think* something specific about the Everglades. Additionally, you want them to *feel* something. People are persuaded by evidence, but they are also persuaded by feelings. If you want to encourage someone to act, you might want them to feel worried, hopeful, brave, patriotic, or other emotions. Lastly, a good story will make the audience want to *do* something.

At the end of your story, what do you want the audience to think, feel, and do about the Everglades?

Think:_____

_____

Feel:_____

_____

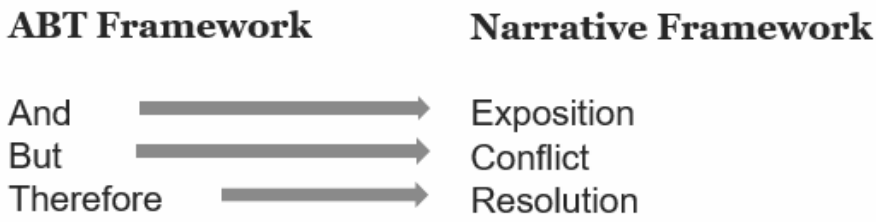
Do:_____

_____

Step 3: Put it All Together

A traditional narrative format follows a plot pattern you may be familiar with: Exposition, Rising Action, Climax (the height of the conflict), Falling Action, and Resolution.

Randy Olson, the author of *Houston, We Have a Narrative*, looked at stories and looked at how scientists were talking about science, and saw there was a big difference. Scientists weren't including a plot in their stories. They were sharing a lot of facts, but not tying them together for their audiences. He created the "And, But, Therefore" framework to help scientists tell their stories. Below, you can see how the elements of the ABT framework correspond to the parts of a traditional narrative framework



The ABT framework can be found in our most popular stories:

Moana is a young Polynesian girl who lives on an island
AND though she loves the water, she stays on the island to keep her family happy
BUT a mysterious disease starts to affect the island
THEREFORE, she embarks on a quest to find Maui, a demigod, and save her home

It works with scientific facts:

Roseate Spoonbills are wading birds that live in the southern Everglades
AND they eat the fish that live in shallow waters
BUT the southern Everglades doesn't have enough freshwater to support those fish populations
THEREFORE Roseate spoonbills are moving north where they have more food

And it works with describing scientific research processes:

Roseate Spoonbills eat the fish that live in Florida Bay, the southern part of the Everglades
AND they build nests where they have enough food
BUT we've observed that they're moving north
THEREFORE we're measuring the salinity of the water in Florida Bay to see if it's too saline for their food sources

And it works with arguments based on research:

Roseate Spoonbills are wading birds that live in the southern Everglades in Florida Bay
AND they eat the fish that live in shallow waters
AND they nest where they have sufficient food sources
BUT the southern Everglades doesn't have enough freshwater to support the fish populations they need
THERFORE Roseate spoonbills are moving north where they have more food
THEREFORE the southern Everglades needs more freshwater

The ABT framework is just that – a framework that describes a pattern, not a strict formula. As you see in the last example, there can be more than one "Therefore" or more than one "And". The goal is to have the general structure move from explanation, to conflict or contrast, to resolution.

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Write a story about the Everglades, based on what you read in the Our Everglades, Our Water fact sheet. Keep your audience and purpose in mind. It can be more than four sentences and it doesn't have to follow the ABT framework exactly. You might not use the words "but" or "therefore". Maybe you'll use other words like "however" or "so". Maybe you'll find other ways to write the story. Just keep in mind that the goal is to have the general structure move from explanation, to conflict or contrast, to resolution.

Step 4: Craft Your Personal Connection to the Issue

You're an important part of this story too. The Everglades provides drinking water for over 8 million Floridians. That's one out of every three people that live in the state. Think back to how you identified yourself as a "speaker". Keeping that in mind, write a few lines that illustrate the importance of water in your life, or that illustrate the importance of water in your community.

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Step 5: Share Your Story

Think about ways to share your story. You can tell folks over the dinner table, create an infographic or post to share online, or write your elected officials.

Share Your Story With Congress

If you want Congress to hear your story about Florida's clean water and the Everglades, we'll help you write to them.

It's important for Congressional representatives to hear from their constituents, the people who live in their district. Members of Congress vote on national laws, but they also vote on the federal budget. They help decide how much money is spent on things like education, highways, housing, or environmental projects, like Everglades restoration.

Whenever you're writing to an elected official, you should accompany your story with a specific "ask", a decision you want them to make. In this case, you could ask your Congressional representative to make sure to support Everglades restoration funding.

Consider this outline:

1. Introduce yourself
2. Include your "ask" – politely ☺ – so they know why you are writing to them
3. Explain why the Everglades is important to you and your community
4. Tell the story of the Everglades to provide context for your ask
5. Repeat the ask and thank them for their time and work (this part is done for you)

During Earth Week, April 19 – April 26, go to this link: https://bit.ly/evergladesstory
Follow the instructions to write your Congressional representative. The email will automatically be sent to them.