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FOUNDATION

Everglades Dilemmas

Have you ever been in a dilemma before? To work through it, you have to consider all of your options and determine the outcome of each option. The same goes for Everglades dilemmas.

Directions: In this activity, students will be presented with different "water dilemmas" affecting the Everglades. Teams will analyze the different scenarios, select which action they would take related to the dilemmas, and justify their reasonings. After each group selects the best option to solve their dilemma, students will share with the class their decision making process and why they chose that option.

Download the <u>Everglades Dilemmas Powerpoint</u> for background information. Then use the dilemma cards (attached below) to complete the assignment.

For the assessment: Have students write an explanatory essay that describes two different dilemmas they might face daily and discuss how the decisions they make impact natural resources and habitats. Consider ways that human decisions affect the health of the Everglades, including how the management of water resources have to be made daily and how these decisions impact the health of the Everglades, including how the management of water resources can create dilemmas. Essays should reflect ideas, concepts, and information gleaned from the dilemmas discussed in class.

Standards: SC.8.N.4.2, LAFS.8.W.1.2, LAFS.8.SL.1.1

Everglades Literacy Lesson Connection:

Grade 8, Lesson 3-Everglades Dilemmas https://www.evergladesliteracy.org/eighth-grade

-Students will be presented with different "water dilemmas" affecting the Everglades. Teams will analyze the different scenarios, select which action they would take related to the dilemmas, and justify their reasonings.

Grade 8 - Lesson 3



Dilemma Cards

Dilemma 1: Social/Economic Concerns

You and a friend are hiking in Everglades National Park and you see someone dumping a 55-gallon drum of a dark liquid into the water next to the trail. What should you do?

- 1) Run over and ask what is going on.
- Quickly use your cell phone to call the police. This is an environmental hazard and can harm the wildlife that live here.
- 3) Wait until the person leaves, then investigate by smelling and feeling the liquid.
- 4) Take down the license plate number of the nearby truck and report the situation to the fire department.
- 5) Nothing. It is none of your business. The costs to clean this mess up will be charged to Everglades National Park.
- 6) Other?

Dilemma 2: Economic/Political Concerns

You own a small fish camp on the shores of Lake Okeechobee. There are about 100 other camps in the same area. Several residents around the lake have been complaining because they think the section of the lake near the camps has poor water quality. They have noticed an increase in algae growth and an unpleasant odor. A public service announcement informed the community that these problems likely are caused by septic tanks, leaking sewage into the groundwater which feeds into the lake. Septic tanks are individual homeowner underground sewage/ wastewater collection systems (Think about all your toilet flushes, dish washing, clothes washing, etc.). The announcement advised that septic systems should be checked every three years. It has been almost ten years since yours has been checked and you know other camp owners have not checked theirs recently either. Checking your septic tank and fixing the problem could be costly. A fine could be imposed if your septic tank is found to be defective; although it is not likely the tank will be checked. What are you going to do?

- 1) Do nothing; your tank probably isn't leaking—and if it is, the fine can't be that bad.
- 2) Have your septic tank checked; and if it is leaking, pay to have the sewage pumped and hauled to a safe place.
- 3) Have your septic tank checked, and if it is leaking, sell the camp.



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Dilemma Cards

- 4) Have your septic tank checked; fix it if it is leaking and form a homeowner's association to encourage everyone else to check their tanks too.
- Rally the public works system to develop a community water and sewage system and pay to have your camp hooked up.
- 6) Other?

Dilemma 3: Social/Economic Concerns

Your friends have spread a plastic tarp on a hill and are spraying it with a community park hose. This creates a great water slide, however, sliding repeatedly kills the vegetation on the hillside and large amounts of water are consumed during the game. You have been invited to take a dive down the hill. What should you do?

- Report the game to the local authorities and have them cut off the water supply. This will
 cost the county a lot of money.
- 2) Change into your bathing suit and join the fun. You're not paying for it.
- 3) Join the activity but only for a short while, encouraging your friends to stop with you.
- Refuse to join in and go home and watch television. Wasting water can impact water supply for everyone.
- 5) Lecture your friends on the reasons to not waste water.
- 6) Other?

Dilemma 4: Economic/Social/Politics Concerns

Your neighbor Ms. Rose has the most beautiful garden around. Unfortunately, she keeps her garden growing with commercial fertilizer which she applies weekly. Every time it rains, the water that falls on her garden carries some of this fertilized soil into storm drains and eventually into the waterways. Fertilizers are loaded with nutrients like phosphorous and nitrogen. Fertilized soil carries nutrients that can harm the environment and have negative effects on water quality. There is a law known as the Clean Water Act which regulates the amount of pollution that is allowed in our waters. What do you do?

- 1) Don't say anything; it really isn't any of your business.
- 2) Offer Ms. Rose a startup kit for a vegetable garden instead of roses.
- 3) Steal her bags of fertilizer every time she goes to the store before they get to the garden.



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Dilemma Cards

- 4) Tell Ms. Rose about the negative effects of phosphate pollution and help her start a compost pile.
- Help Ms. Rose put up a fence around her garden hoping this will block some of the fertilizer runoff.
- 6) Other?

Dilemma 5: Social/Economic Concerns

Your friend has a pet Burmese python that has gotten too large and his parents are making him get rid of it. They told him to take a weekend trip to Everglades National Park and let it go. They told him that it would have plenty of food and water and space to be free – the perfect habitat! What do you say to your friend about this topic?

- Do nothing, say nothing you don't want to contradict his parents or make him think less of you.
- 2) Join in on the camping trip, make sure the snake is let go in a suitable place.
- Ask your friend if you can talk to him and his parents about why this is not the best idea, the effects of invasive species on the Everglades system, etc.
- 4) Convince your friend to go to an Exotic Pet Amnesty Day that Florida Fish and Wildlife puts on regularly throughout the year and give the snake to them, not release it in the Everglades.
- 5) Your friend lives by a canal. Convince your friend that the better habitat is this canal, and he will be able to still visit his pet when he wants. This way, it will not have any negative effects on the Everglades system.
- 6) Other?

Dilemma 6: Social/Environmental

You and your friends are going on a fishing trip on the Kissimmee River. Once on the boat your friends are throwing their garbage, drinks, and tangled fishing line over the side into the water. Marine debris contains toxic chemicals that seep into the ocean. Marine animals eat, suffocate, and are exposed to chemicals leading to disease from plastic in the ocean. What do you do?

1) Who cares? You are on a vacation - don't worry about anything!



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Dilemma Cards

- Volunteer to use your backpack as the "garbage bag" for the waste instead of throwing it overboard.
- Silently take the garbage, not saying anything to anyone about it and dispose of it when you get home.
- 4) The river is a big place, a small amount of litter won't really have that much of a negative impact, so don't worry about it.
- Lecture your friends for the rest of the day about how wrong it is to litter and what litter does to the habitat around.
- 6) Other?

Dilemma 7: Social/Environmental

You are invited to go on an airboat tour in the Everglades. Before you go, you do some research on the company that your group is using. They do live gator shows and feed raccoons on the side of the bank by the airboat. If they see turtles, they catch them and let the tour attendees touch their shells and feet etc. Feeding alligators is against the law. Feeding wild animals can cause them to lose their natural fear of humans. This increases the danger to animals and humans. What do you do?

- 1) You are a guest, silently listen to the show, pet the animals carefully and with respect.
- Do more research before you go, and decide that this is not what you want to do politely tell your friend you can't go because you aren't feeling well.
- Do more research, find a tour that doesn't feed animals or let people touch them and is conscience of the ecosystem.
- 4) Tell the family that invited you that airboat rides destroy the Everglades habitat and they are awful people to want to go.
- 5) What a unique opportunity to see some animals up close that live in the Everglades! Take full advantage, touch all the animals to understand them more and be the first to volunteer to feed them show the rest of the group how it's done!
- 6) Other?



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Dilemma Cards

Dilemma 8: Environmental/Economic

You are moving to South Carolina from Florida! Unfortunately, your parents are not letting you keep your giant fish tank. This means you have to get rid of all the fish. Most of your fish are non-native to the Everglades. Nonnative and invasive species can wreck an ecosystem. Your friends recommend you releasing it in the canal behind your house. The impacts of invasive species costs billions of dollars each year. What do you do?

- 1) You know dumping them in the canal is not a good choice flush them down the toilet.
- 2) Your friends know best, put them in the canal.
- 3) Call the local fish store and see if you can donate or sell your fish to them.
- 4) You know better than that bring them to the ocean and release the fish.
- 5) Ask your classmates if they would be willing to take your fish instead of releasing them.
- 6) Other?

Dilemma 9: Economic

You just inherited a lot of money, but a clause requires that you donate 50% of it to a certain organization that would benefit the Everglades system as a whole. But, there is a way to keep all the money for yourself if you do nothing with it for 50 years. What do you do?

- 1) Do nothing, wait 50 years for the money.
- Do a lot of research and find an organization you feel does the best job working with Everglades Restoration and donate to them, trusting that they will know best.
- 3) Do a lot of research and find an organization that works with Everglades Restoration and donate to them, asking that you are kept in the loop of what the money is being spent on.
- 4) Contact an expert on Everglades Restoration to see where your money would be best used.
- Create your own organization called "We Love the Everglades" and "donate" your money to your own organization.
- 6) Other?



Dilemma 10: Social

You just inherited 100 acres that borders Lake Okeechobee. You could do several things with this land. What do you do?

- 1) Use the land for development, build houses and apartment buildings.
- Use the land as farm land, there are already many farms around so you can ask the neighbors for help to get started.
- 3) Keep the land natural, making it into a park.
- 4) Do nothing with the land; you have no idea how to use 100 acres in that area.
- 5) Donate it to the state to have them use it in the best way for the Everglades.
- 6) Other?

Everglades Dilemmas Assessment Grading Rubric

THE	EVER GLADES FOUNDATION

Name: ______ Date: _____

Criteria	2	1	0	Score
Describe how different social and economic decisions impact the Everglades	Shows several linkages between dilemmas and understanding of the impacts on natural resources and habitats	Shows several linkages between dilemmas but does not connect to impacts of natural resources and habitats	Links and connections to impacts are not made.	
Explain how decisions made on a daily basis have the potential to impact the Everglades	Shows several linkages between the human decisions and management of water resources	Shows several linkages between the human decisions but does not connect it to water management.	Links are not made	
Organization	Distinct introduction, body, and conclusion. Smooth transitions between paragraphs and ideas.	Organization is inconsistent, incomplete, and/ or ineffective.	It is difficult to understand how the piece is organized. Paragraphs and ideas do not flow.	
Mechanics & Usage	No errors in sentence or word usage; No errors in punctuation, capitalization or spelling.	Some errors in sentence or word usage; AND/OR some errors in punctuation, capitalization or spelling.	Multiple errors in sentence or word usage; AND/OR multiple errors in punctuation, capitalization or spelling.	
TOTAL SCORE				