

PATH OF THE PANTHER

Interdisciplinary ideas and activities for learning about environmental conservation concepts: **endangered species recovery** and the role of **wildlife corridors**

FOR MIDDLE AND HIGH SCHOOL EDUCATORS



PathofthePanther.com

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WELCOME

Get ready for an immersive and awe-inspiring experience. Viewing the captivating documentary *Path of the Panther* (rated PG), you and your students will embark on a journey through lush and vibrant landscapes of the Florida Wildlife Corridor. This guide has been designed to enhance the educational experience of watching this documentary by providing useful resources, discussion topics, and activity ideas.

Path of the Panther offers unique insight into the lives and struggles of the endangered Florida panther. Through breathtaking visuals and informative narration, this film highlights the importance of conservation and the urgent need to protect the natural habitats of these majestic animals.

The **Florida Wildlife Corridor** not only provides a natural habitat for countless endangered species, but it also plays a crucial role in maintaining the delicate balance of our planet's ecosystem. By learning about this unique region, students can gain a deeper understanding of the importance of conservation efforts and the impact that humans can have on our environment. Exploring the Florida Wildlife Corridor can help students to develop a sense of responsibility toward preserving our natural resources for future generations.

We hope that this guide will help you to create a meaningful and engaging learning experience for your students, and inspire them to take action to protect our planet's natural resources.

NOTE ABOUT TEACHING WITH FILMS

When planning to teach with movies or videos, it is important to talk with an administrator or your technology department about policies for streaming or showing video content in classrooms. Every school and district will have its own rules for showing videos as part of learning. See the [Common Sense Media](#) website for more guidance for showing movies and videos in the classroom.

KEY TERMS**camera trap**

a tool for monitoring wildlife in remote areas; sensing motion or heat from a passing animal, the camera takes a photograph or records video.

conservation

the act of protecting Earth's natural resources for current and future generations

Endangered Species Act

a law that provides for the conservation of threatened and endangered organisms and their habitats

keystone species

an organism that helps to hold an ecosystem in a state of balance; scientists divide them into three types: predators, ecosystem engineers, and mutualists

predator

an animal that hunts, kills, and eats other animals

wildlife crossing

bridges and tunnels designed for animal movement, in order to reduce the environmental impacts of vehicles on roads



BEFORE VIEWING

PATH OF THE PANTHER

Path of the Panther will inspire new understanding in viewers of any age or background. National Geographic Explorer Carlton Ward Jr. and his team spent years tracking, filming, and photographing the elusive Florida panther with unbelievable perseverance. The roles played, and actions taken, by a collaborative conservation community—veterinarians, researchers, scientists, mapmakers, landowners, ranchers, advocates, and policymakers—show cooperation and deep commitment to a critical cause. And exploration of South Florida’s natural environment is full of surprises.

Before showing the film, give students an opportunity to talk about what they know and wonder about the Florida panther, and then map some of the film’s geography.



ACTIVITY

A CLOSER LOOK AT THE PANTHER

Help students access prior knowledge and build interest about what they might learn from the film. Show [Florida panther photographs from this link](#). Give students an opportunity to talk about what they know and what they observe in photographs. Make notes together as a class about their ideas and questions.



ASK:

- What do you **know** about the Florida panther?
- What do you **notice** about panthers in the photos?
- What do you **wonder** about this animal?
- Why do you think animals (such as the Florida panther) may become endangered?
- How might the Florida panther be **interconnected** with other living organisms?
Allow students to share ideas about other animals, plants, and humans as well.

If time allows, preview [the people featured in the film](#) and talk about the [camera trap technology](#) used to find the elusive Florida panther.

10
MIN



BEFORE VIEWING PATH OF THE PANTHER

ACTIVITY

MAPPING THE PATH OF PANTHER RECOVERY

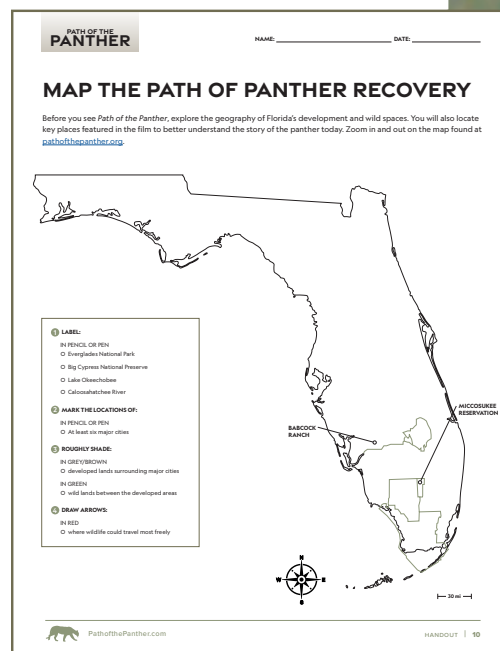
Help students become familiar with places in the film, see the mosaics of developed and wild areas, and mark where they expect panthers could someday roam throughout the state. As they follow steps on the handout, they will study the [map from this link](#).

Provide a copy of the handout for each student. They will need a **pen or pencil** for labeling, as well as **green, grey /brown, and red colored pencils** to create their map. Make sure everyone has **access to the map** via a projection they can view easily, or on tablets or laptops.

Have students follow these steps as noted on the handout:

- 1 ZOOM IN on south Florida, marking **place names** provided (e.g., national parks, key river).
- 2 ZOOM OUT to the whole state. Mark locations of at least **six major cities**. Have students look for large areas where cities are surrounded by grey shading, which represents development of land. If living in Florida, have your students mark their location on the map also.
- 3 ROUGHLY SHADE the **grey areas** around the cities. Then roughly shade the **green areas**, representing the wild lands.
- 4 AS SHOWN on the map, draw **red arrows** where the wildlife can likely move freely, representing the Florida Wildlife Corridor areas.

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Find handout on **page 10**.

NOTE: This map activity is meant to be done quickly to give students experience with the film's geography, so end results may be far from perfect. Give students more time if maps will be displayed.



WHILE VIEWING PATH OF THE PANTHER

Consider student age and experience with learning through films as you plan for note-taking and discussion during and after *Path of the Panther*. Included in this guide is a handout to simplify note-taking, and there are a variety of approaches for discussion.

If students generated questions in the Before Viewing: A Closer Look at the Panther activity (page 3), be sure to revisit those questions for discussion and possibly for further research.

Your students can use the Viewing Guide (page 11) for simplified note-taking while they watch, with questions on the second page for individual, small group, or whole class follow-up discussion.

Alternatively, use questions on the next page of this guide (page 6), or your own, to stop and discuss throughout the film.



VIEWING TIME:
1 HOUR 30 MIN

STREAMING
ON HULU
AND DISNEY+

PATH OF THE PANTHER NAME _____ DATE _____

VIEWING GUIDE

Before viewing the film, read the note-taking suggestions in the four boxes below. While you watch, add notes or circles to keep track of what happens in the film and to help with discussion following the film.

List the animals in the film.	List five or more words to describe the panther's natural environment.
List the jobs of five or more people in the film.	Circle any threats to the panther in the list below.
	cars cities boats oceans highways rivers aircraft diseases hunters other animals

PathofthePanther.com HANDOUT | 11

PATH OF THE PANTHER NAME _____ DATE _____

VIEWING GUIDE (CONTINUED)

REFLECT
This film is presented to help you connect to the Florida panther and its home. Reflect on the film and your notes as you share your ideas below.

What did you see in the film that is new to you?
How did the film make you feel?
What do you think the people and the wildlife in the film have in common?
Are any of the groups more important than the others: wildlife, habitat, or people? In what way?
In what ways do people in the film take action to deal with threats to wildlife and habitats?
In just a few words, what's the most important thing you learned from the film?

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ACTIVITY

PATH OF THE PANTHER VIEWING GUIDE

Before students watch the film, give them the *Path of the Panther* Viewing Guide and talk about the instructions and note-taking guidance for each of the four boxes. After the film, you can also have students work in small groups or individually with the Reflection handout on the second page.



Find handouts on **pages 11-12**.



WHILE VIEWING PATH OF THE PANTHER

ACTIVITY

QUESTIONS FOR DISCUSSION

While showing the film, here are some optional pause points with guiding questions to focus students on key ideas and check for understanding. These may also generate some interesting discussions:

TIME CODE(S)	QUESTION(S) TO ASK	POSSIBLE STUDENT RESPONSES
12:37 Ranches as panther habitat	What do you think it is about ranches that make them appealing to panthers?	Large tracts of land, prey items, places to hide, dry places to den, no people
29:00 - 30:56 SEL Moment: persistence toward goals	Have you ever experienced a really big setback when working toward a goal? How did it make you feel? Which of the strategies Carlton Ward used to move forward and accomplish his goals appeal most to you? Least? Why?	Answers may vary. Conversation could also address challenges of camera trap technology if more appropriate to class.
34:15 - 38:39 Role of the Panther in Miccosukee culture	Describe the relationship the Miccosukee have with the panther. Is this similar to or different from the relationship early Florida settlers had with the big cat?	Interdependent relationships within ecosystems. The presence of the panther benefits all animals (and people).
56:00 - 57:09 Rural lands need revitalizing?	Do you agree or disagree with the speaker? Would you ever consider speaking at a public hearing? Why or why not?	Answers may vary.
1:15:00 - 1:17:00 Land for farms & animals	How do conservation easements benefit farmers and wildlife? Are there benefits for all Floridians when we conserve land?	Provide financial incentive to keep land as farmland, which provides food for people and land for animals. Clean water/air.



AFTER VIEWING

PATH OF THE PANTHER

After the film, take time to revisit students' questions from the Before Viewing activity. Did the film help students answer their questions, or will they need to do some research? Also revisit the map from Mapping the Path of Panther Recovery and ask: Which locations were featured in the film? Why do these locations matter to the story?

ACTIVITY

GRAPHING THE ISSUE: FLORIDA PANTHER POPULATION

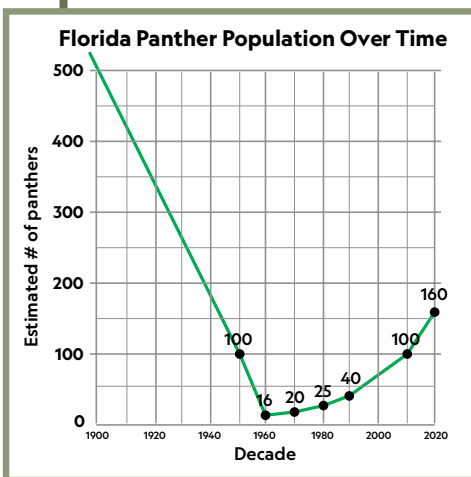
Another valuable activity is for students to apply graphing skills to create a visualization of panther data for the past century and beyond.

Note that this activity may need to be adapted for different age groups. For *middle school* students it might be helpful to simplify and do the activity together as a class, while *high school* students should be able to work with the data individually or in pairs.

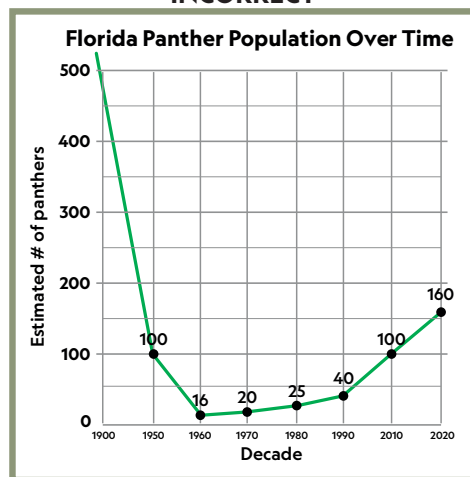
Students will graph panther population, identify trends, and consider causes of panther population declines. On the second page, students apply the Claim-Evidence-Reasoning model to their graphing.

NOTE ABOUT EXAMPLE GRAPHS: Students may have misconceptions about graphing. One common error is incorrect scaling. Notice one sample graph does not reflect the years missing data points. Graphing programs often make this mistake. Remind students the scale must be consistent even if there are missing data points. Students can label or circle actual data points for clarification.

CORRECT



INCORRECT



NAME: _____ DATE: _____

GRAPHING THE ISSUE: FLORIDA PANTHER POPULATION

In the film, you learn that the panther population in Florida has decreased as the land available to panthers has shrunk. The Florida Wildlife Corridor provides a path for panthers to expand their territory north of the Caloosahatchee River. Use the data provided in the chart to graph the Florida Panther population since the 1900s. Include a title and label each axis. Use as much of the graph space as possible to help make the graph clear and readable. Think about these questions: How will any missing data points be represented? How will you address data ranges—choose the lowest, highest, or determine the average?

YEARS	ESTIMATED # OF PANTHERS*
1900	500+
1950	100
1960	12-20
1970	20
1980	20-30
1990	30-50
2010	80-100
2020	120-230

*Counting panthers is challenging work and so these estimates are based on observations and a variety of scientific methods, measures, and organizations.

- Describe the population of the Florida panthers from the 1900s to the 1960s. What may have caused any changes you observe?
- What happened to the populations between the 1960s and 2020? Why do you think this trend occurred?
- Predict what you think will happen to the panther population in the next 20 years. Justify your response.

PathofthePanther.com HANDOUT | 13

30-45
MIN

NAME: _____ DATE: _____

GRAPHING THE ISSUE: FLORIDA PANTHER POPULATION

CLAIM - EVIDENCE - REASONING

Review the graph you created. Have you connected the data points?

Describe the trend evidenced by the graph (i.e. What claim can you make about the panther population?).

Identify the data (evidence) in your graph that supports the trend you identified above.

Using knowledge you learned from the film, provide reasoning to connect your claim and evidence.

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Find handouts on **pages 13-14**.



AFTER VIEWING PATH OF THE PANTHER

ACTIVITY

ACTION IDEAS: WHAT CAN STUDENTS DO?

The Florida Wildlife Corridor is not yet complete. Habitat destruction is still a threat in Florida and in other areas around the world. Help students understand that they can take action and make a difference.

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GIVE STUDENTS ACTION IDEAS SUCH AS:

- 1 BETTER UNDERSTAND the habitats and wildlife of the Florida Wildlife Corridor. Plan ways to explore and connect with it through recreational activities.
- 2 FOLLOW PROGRESS with the corridor on pathofthepanther.com. Talk about why it's important with friends and family. Share the film with them, and then discuss opportunities for taking action.
- 3 WRITE POLICYMAKERS about the importance of protecting the Florida panther's habitat and the Florida Wildlife Corridor. Go to pathofthepanther.com for details on how to write to policymakers. Or write to Fish and Wildlife Foundation of Florida, P.O. Box 11010, Tallahassee, FL 32302.
- 4 IF OUTSIDE OF FLORIDA, research nearby wildlife corridors or local keystone species and write to policymakers and government officials about conservation there.
- 5 AS A NATIONAL GEOGRAPHIC EXPLORER, Carlton Ward Jr. exhibits a certain mindset that contributes to his success. Have students think about which aspects of this [Explorer Mindset](#) could help them as they take action.



“...more panthers now roam South Florida than probably at any time in the past 50 years. There are still too few of them, of course, but the fact they’re here at all is no small miracle.”



RESOURCES

WEBSITES

[Path of the Panther](#)

[Wildpath](#)

[Archbold Biological
Station-Education](#)

[Florida Wildlife Corridor](#)

[Regeneration:
Wildlife Corridors](#)

[Florida Panther Program](#)

[Help Save the Florida Panther](#)

[Live Wildly](#)

STORY MAPS

[Connecting the Corridor](#)

[The Road to 30:
Wildlife Corridors](#)

[The Florida Black Bear](#)

VIDEOS

[Saving the Florida
Wildlife Corridor](#)

[Understanding
Wildlife Corridors](#)

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Ward Jr./Wildpath

Film Discussion Guide sponsored
by Disney

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LEARNING CONNECTIONS

There are so many ways to incorporate learning about ecosystems, endangered species, wildlife corridors, and conservation of critical habitat. Consider these additional ideas:

TECHNOLOGY: Have students find out more about the [camera trap technology](#) and network used to track the panther. Students can help to identify species in conservation areas globally through [InstantWild.zsl.org](#), a hub for camera trap citizen science. Find out more about teaching with camera trap citizen science through this National Geographic [online course](#) for educators.

CLIMATE SCIENCE: Research how climate change might be affecting panther habitats. Sea level rise, changes to vegetation, temperatures, disruptions to other wildlife in the food chain, disruptions to the water cycle, storms, and more can all have detrimental effects on panther habitat and populations.

SOCIAL STUDIES: Research history of the land, including native/indigenous connections to the panther and the lands of the Florida Wildlife Corridor. Students can begin with the [Native Land Digital map tool](#).

SCIENCE/GENETICS: Research genetics issues for the Florida panther, including the need for genetic diversity and importance of connectivity in long-term recovery of the species. Students could also find out more about pumas brought from Texas to Florida to help save the Florida panther.

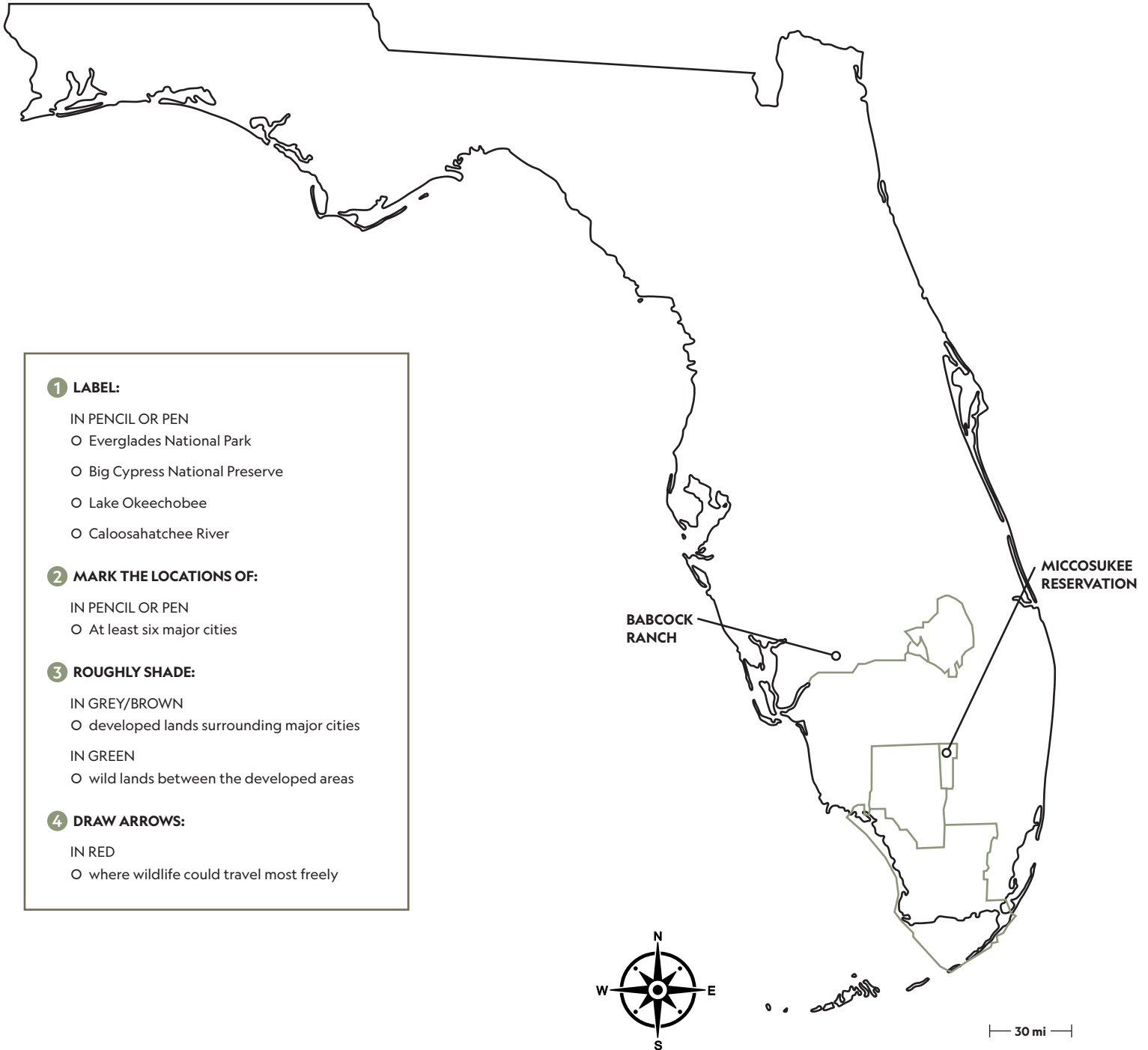
ART/LANGUAGE ARTS: Have students create art, poetry, essays, or fiction honoring or sharing the story of the Florida panther or the Florida Wildlife Corridor. On this [Corridor Progress](#) site, students can find Florida Wildlife Corridor places and identify those they'd like to visit. Or assign roles from the film such as conservationists, photographers, ranchers, scientists, etc., and have students write from different perspectives about panther conservation.

Thank you for making *Path of the Panther* part of your students' learning. We'd like to learn about what resonated with you and them. We invite you to post on social media [@PathofthePanther](#).



MAP THE PATH OF PANTHER RECOVERY

Before you see *Path of the Panther*, explore the geography of Florida's development and wild spaces. You will also locate key places featured in the film to better understand the story of the panther today. Zoom in and out on the map found [here](#).



1 LABEL:

IN PENCIL OR PEN

- Everglades National Park
- Big Cypress National Preserve
- Lake Okeechobee
- Caloosahatchee River

2 MARK THE LOCATIONS OF:

IN PENCIL OR PEN

- At least six major cities

3 ROUGHLY SHADE:

IN GREY/BROWN

- developed lands surrounding major cities

IN GREEN

- wild lands between the developed areas

4 DRAW ARROWS:

IN RED

- where wildlife could travel most freely



VIEWING GUIDE

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<p>List the jobs of five or more people in the film.</p> <hr/>	<p>Circle any threats to the panther in the list below.</p> <p>cars cities</p> <p>boats oceans</p> <p>highways rivers</p> <p>aircraft diseases</p> <p>hunters other animals</p>



VIEWING GUIDE (CONTINUED)

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.....

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GRAPHING THE ISSUE: FLORIDA PANTHER POPULATION

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