



Saving Wild Florida: Imperiled Species Series Activity

Background

- **Endangered Species:** A species at risk of extinction in the wild due to one or more impacts that commonly include habitat loss, competition from invasive species, disease, and overexploitation.
- **Threatened Species:** A species at risk of becoming endangered in the foreseeable future if threats are not minimized through policy and management strategies.

Throughout history there have been several mass extinctions, where individual species could not adapt to large scale events such as climate change, asteroid impacts, and sea level rise. Today, species are threatened by natural and man-made causes. Due to an increasing amount of habitat destruction, invasive species introduction, climate change, air and water pollution, and overexploitation more and more species are at risk of extinction.

In 1973, Congress recognized the need to provide protection to imperiled species. Through this policy and others, efforts to protect at risk species range from habitat protection and restoration to captive breeding programs. Many of these methods are being employed within Palm Beach County to protect our 23 threatened/endangered species.

You can help imperiled species as well by participating in litter clean-ups, creating a native plant habitat in your backyard, collecting citizen science data, and volunteering at an environmental facility. One of the biggest ways you can help is by spreading awareness and encouraging others to join you during one of the activities described above. It will take all of us to ensure that these animals survive for generations to come.

Materials

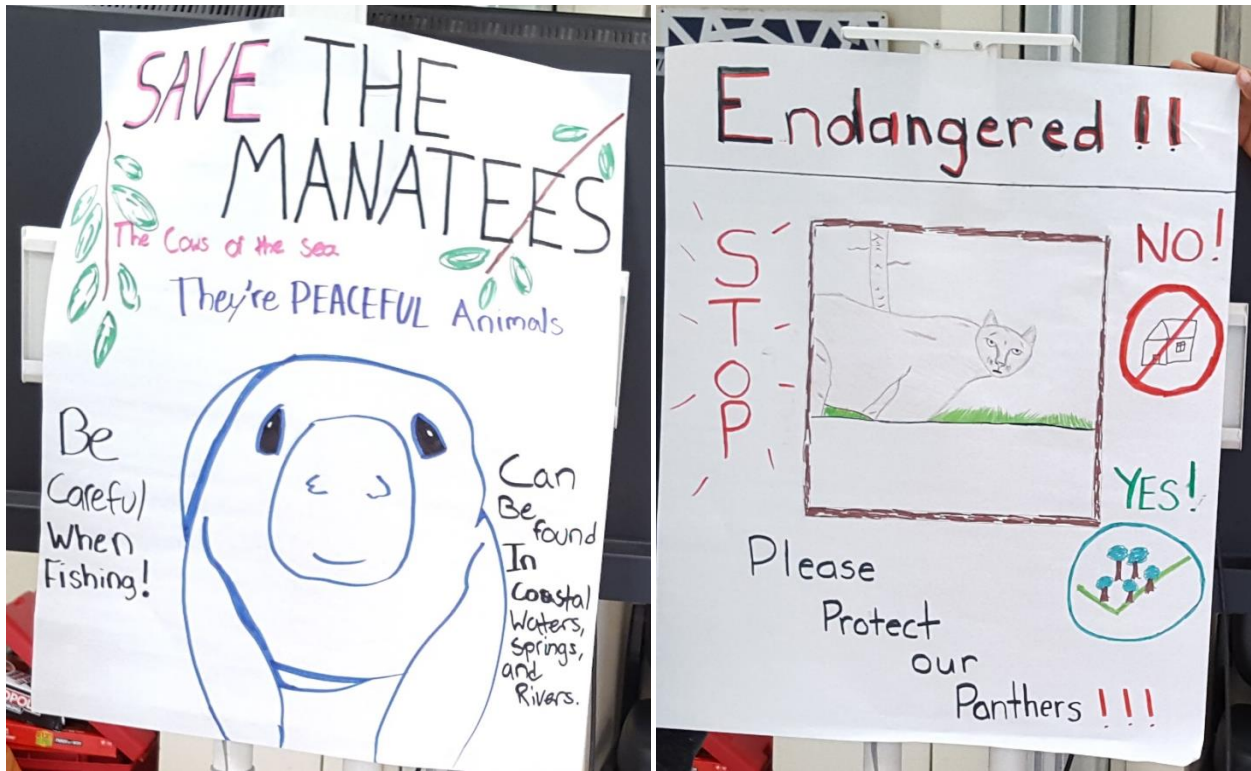
- Poster or Blank Sheet of Paper
- Markers or Colored Pencils
- Imperiled Species Reference Sheet

Instructions

1. Imagine you have been hired by an advertising firm to launch a campaign to save an imperiled species in Palm Beach County. Your job is to create a poster or flyer that generates awareness and encourages the public to take action to protect your species.
2. To start, select your favorite animal or plant species on the imperiled species reference sheet. These are all endangered or threatened species found within Palm Beach County.

3. Create a poster or flyer that includes a slogan, drawings or photos of your species, and the information from the questions below. Check out the information on the imperiled species reference sheet as well as some examples on page 2.
4. Below are some examples of information that can be featured on your flyer or poster:
 - a. What is its common and scientific name?
 - b. What type of habitat does it live in?
 - c. What are its identifying physical characteristics?
 - d. What is its diet? Illustrate its food web.
 - e. Is it classified as endangered or threatened?
 - f. Why is it endangered or threatened?
 - g. What are the symbiotic relationships it has with other species?
 - h. Why is your species survival important?
 - i. What are some ways that people can help your species?
5. Share your flyer with friends and family in order to generate awareness for your endangered or threatened species and start a discussion on how they can help.
6. Email a photo of your finished product to education@swa.org in order to receive a prize related to the protection of these species.

Poster Examples



Adapted from Project Learning Tree's "Life on The Edge" Activity

Standards Related to this Activity

Next Generation Sunshine State Standards

SC.6.L.15.1 Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.

SC.6.N.2.3 Recognize that scientists who make contributions to scientific knowledge come from all kinds of backgrounds and possess varied talents, interests, and goals.

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.

SC.7.L.17.1 Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.

SC.7.L.17.2 Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism

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.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.912.L.17.6 Compare and contrast the relationships among organisms, including predation, parasitism, competition, commensalism, and mutualism

SC.912.L.17.8 Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.

SC.912.L.17.9 Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.

SC.912.L.17.20 Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.

Next Generation Science Standards

MS-ESS3-3 Earth and Human Activity: Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

MS-ESS3-4 Earth and Human Activity: Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

HS-LS2-6 Ecosystems: Interactions, Energy, and Dynamics - Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

HS-LS2-7 Ecosystems: Interactions, Energy, and Dynamics - Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

HS-LS4-5 Biological Evolution:Unity and Diversity - Evaluate the evidence supporting claims that changes in environmental conditions may result in (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.