



Education and Research: Testing Hypotheses

Birds of a Feather

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Summary

Students will study three birds (Osprey, Snowy Plover, Black Skimmer) relevant to conservation efforts in Northwest Florida. Students will research using texts and internet, then collect data on a field trip to the beach, and finally develop a presentation and present their findings. Students will explore physical traits, migration tendencies, bird sounds, hunting, and nesting and reproducing. Students will develop their own data sets during the field trip. Findings will be enhanced using the visual arts via photography on the trip as well.

Key Concepts

[MS-LS2-1 Ecosystems: Interactions, Energy, and Dynamics](#)

Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

[3-LS4-3 Biological Evolution: Unity and Diversity](#)

Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

[3-LS4-4 Biological Evolution: Unity and Diversity](#)

Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.*

[5-ESS3-1 Earth and Human Activity](#)

Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and 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.

Objectives

Students will observe and identify three birds: Osprey, Snowy Plover, and the Black Skimmer.

They will record and describe their appearance, behavior, habitat, migration pattern, both from internet research and personally recorded data.

Students will be able to speak about the nature and purpose of conservation efforts in the area.

Students will communicate results via presentations.

Materials

National Geographic Bird Guides

Binoculars

Cameras

Computers with internet access for research

Bird calls

Birds of Florida's Gulf Coast folding guide

Data collection sheets/journals

Procedure

1. Attention grabber/introduction – A listen and match activity where students predict which sound is made by each of the three birds
2. Research Process – Assign students a partner and bird to begin independent research process
3. Field Trip – students collect data and take pictures
4. Analyze and conclude data, develop presentations
5. Presentation

Assessment

1. Formative assessment – check-ins via questions and editing along that way to confirm understanding
2. Summative assessment – presentation graded against rubric

Going Further

- In dance class, students will be experimenting with movement and space inspired by the birds, their traits, habits, and habitat.
- In art class, students will edit and crop their bird photography then also use these pictures as inspiration to create bird sculptures from found objects.
- In yoga, students will learn poses inspired by bird postures, including the crane and the heron.