



## From Hunting Retreat to Bird Sanctuary

### Resource Guide

---

#### Summary:

- **Recommended grade level:** 2 - 5
- **Classroom activity:** 20 minutes a day for one week
- **Site visit:** 1 - 2 hours
- **Benchmarks:** Interdependence, heredity and reproduction, earth structures, reading comprehension, the practice of science
- **Subjects:** Science and Ecology
- **Skills:** Creating a hypothesis, observation, inference and teamwork
- **Objectives:** Students will learn how to observe the life of another being and understand how habitats and time periods affect the way animals and plants survive or adapt.

#### Materials:

- *Learn and Tour Lessons – Ecology: From Hunting Retreat to Bird Sanctuary* lesson booklet
- Display panels
- Multimedia disk

#### Vocabulary:

- *Adapt:* using surroundings and local resources to survive in a specific location
- *Chicks:* baby birds – such as ducks, swans and cranes – that hatch covered with downy feathers
- *Endangered:* species at risk of dying out
- *Extinct:* species that no longer exist
- *Invasive species:* plants, such as the air potato vine, that overtake a site and destroy other species
- *Natives:* plants or animals that grow in their natural environments
- *Non-natives:* plants or animals that were brought to another environment and are not natural or appropriate for the new environment
- *Nest box:* birdhouses for birds to lay their eggs in
- *Nestlings:* baby birds – such as doves, woodpeckers and bluebirds – that hatch without feathers
- *Sanctuary:* an area that offers a safe place for animals to live

## Background:

In 1870, Frederick deBary came up the St. Johns Rivers on a steamboat to Enterprise, Florida, to enjoy the outdoors, fishing and hunting away from his business life in New York. He enjoyed the area so much that a year later he bought land for a hunting estate of his own. His lands, which grew to over 9,000 acres, contained orange groves, farming areas and hunting preserves. Mr. deBary and his guests enjoyed hunting quail, turkeys, snipe and predator birds. He even had a case custom-made for quail he collected from different areas.

Today, Volusia County manages 10 acres of Mr. deBary's former estate. The area is a bird sanctuary, a place where birds can live and nest safely. Bird-watchers and hikers can see many types of birds on a given day. Some of our feathered friends include turkeys, peacocks, ibis, golden hawks, owls, bats and eagles.

## Procedure:

1. In the classroom: As a class, "adopt" a wild bird. Watch birds that live around your school. Choose one bird to study for a week. Be sure not to disturb your bird so you can understand its natural patterns.
2. Individually, create a bird-watching journal to document your observations of your class bird. Use the scientific method to determine a *purpose* and create a *hypothesis*. For the *process*, keep track of the bird's natural schedule and make notations about the environment it lives in, the food it eats, if it is a solitary or social bird, and any challenges it faces. At the end of the week, discuss your findings and develop a *conclusion*.
3. Tour DeBary Hall: During your tour, we will explore the ecology of DeBary Hall. We will compare the plants and animals that lived here during the DeBarys' time and what has come and gone since. We will look for different bird species along the hiking trail and try to spot and identify a few species.

## Extension ideas\*:

1. Research how birds live in other habitats. Have each student pick a different bird and give a report about how these birds live using the questions from the worksheets. Discover if all birds fly. Compare feather patterns, what different birds eat, and how their beaks differ and for what purposes.
2. As a class, research ways humans have affected birds through habitat disruption, hunting and beneficial programs such as the Audubon Society and other wildlife rescue programs. Discuss ways humans can be more aware of birds.
3. Create a "bird log" for your class in which you can keep track of the various birds you see throughout the year. Take pictures and note how long birds stay in the area and how often they visit.

\*Extension activities may be completed during the tour of DeBary Hall. Please contact the education coordinator for details.

## Benchmarks

### Science

SC.4.E.6.6

SC.4.L.16.2

SC.4.L.16.3

SC.4.L.17.1

SC.4.L.17.4

SC.4.N.1.1

SC.4.N.1.3

SC.4.N.1.5

SC.4.N.1.6

### Reading and Language Arts

LA.4.1.7.1

LA.4.4.2.2