

# Wetland Walk Educational Kit Outline

## Why do we provide the Educational Kit?

This activity kit is designed to familiarize your students with topics presented in the Wetland Walk field trip, and to provide a depth of experience and opportunity to apply knowledge after the trip. The activities within this kit will give your students a better understanding of such topics as **adaptations**, **the wetland habitat**, **change in environments**, and **data collection** using unique artifacts and hands-on exploration. They are designed to build a strong background for the field trip itself, thereby enhancing your students' outdoor experience.

## How does it work?

We recommend that these activities are done in the order that they are presented, for a more comprehensive understanding of relevant concepts. These activities can be adjusted to different age or learning groups. If you feel that your students could benefit from more written analyses, the kit's curriculum includes extensional writing prompts with particular activities, which help to further understanding and scientific observational skills.

## Wetland Kit Contents

1. Supplemental Activity Curriculum Descriptions
2. Materials to support curriculum
3. Visual Aids to support curriculum, including habitat photos, diagrams, and worksheets
4. Artifacts to let students get up close and personal with wetland plants and animals including snake skin, plant seeds, and a birds nest.

## Teachers will need to supply:

1. Modeling Clay
2. Aluminum pan or pie tin
3. Watering can
4. Strip of carpet

## List of Activities and Key Concepts Covered

1. **Bill Nye Wetlands DVD** - *Wetland habitat and ecosystem values*  
This DVD and its related activity help students further understand the important roles wetlands play in our lives and how we can better care for them. Material is also available on a USB stick.
2. **Neary Bird Guide** - *Adaptations, identification skills*  
Students learn about different local birds and create their own field identification cards.
3. **Using Binoculars** - *Identification/observation skills, using scientific equipment*  
Students practice using binoculars in the classroom to hone skills prior to using them on the field trip.

4. **Campus Bird Exploration** - *Identification/observation skills, using scientific equipment*  
Students will observe the various habitats on their school campus and Identify which birds are found in each habitat
5. **Bird Beak Buffet** - *Adaptations, ecological niche*  
Students use stimulated beak types to pick up different food sources to show the importance of beak adaptations.
6. **Migration Hopscotch** - *Wetland values, data collection*  
Students learn the challenges of bird migrations and the important roles wetlands play in this annual event.
7. **History of Neary Lagoon** - *Changing environments, adaptations*  
Students learn the history of Neary Lagoon using a timeline in the classroom.
8. **Wetland Draw Along** - *Changing environments, wetland values*  
Students follow along with the teacher in learning the flow of wetlands through different scenarios.
9. **Building a Wetland\*** - *Wetland values*  
This activity builds on the Bill Nye video using modeling to show the values of wetlands. **(the kit does not include the materials for this activity as they are highly single use, however the materials are easy to come by and relatively inexpensive)**
10. **Bird Report** - *Adaptations, data, research*  
Students pick a local bird and do a research report on it
11. **“Who Am I” Game** - *Adaptations*  
Students play 20 questions to try to figure out what animal identity they have been given.
12. **Importance of Wetlands** - *Wetland values*  
This activity reviews the classroom presentation covering the 6 reasons why wetlands are important.
13. **Seasonal Bird Migration** - Students will be able to explain why some birds migrate, describe how migration is tied into seasonal shifts, and analyze graphs of average temperature, average day length, and bird population. Students will analyze and interpret data looking for patterns.

The Educational Kit includes the visual aids and materials for all activities, unless otherwise noted, and suggestions for extension activities and writing prompts which encourage deeper understanding.

**See chart below for NGSS connections for each activity.**

## Wetland Walk Classroom Kit Standards

Activity	5 E	Focus	Next Generation Science Standards (NGSS)			Suggested Compliment Activities	Best before or after field trip?
			Disciplinary Core Ideas Supported	Science and Engineering Practices Supported	Cross-Cutting Concepts Supported		
<b>Engage! Activate prior knowledge and experience, and get focused for future learning</b>							
Bill Nye DVD	Engage	Background	LS2.C; LS4.D	Engaging in argument from evidence	Systems and System Models	Good intro to any activity	Before
Nearby Lagoon Bird Guide	Engage	Bird ID	LS4.B		Patterns	Bird Beak Buffet, Who Am I game	Before
Using Binoculars	Engage	Field Trip Skills					Before
<b>Explore! Use senses to make observations, discoveries, and connections that stimulate thinking</b>							
Bird Beak Buffet	Explore	Adaptation	LS4.C; LS4.B	Analyzing and interpreting data	Cause and Effect	Nearby Lagoon Bird Guide	Before
Building a Wetland	Explore	Wetland Function		Developing and using models			
Wetland Draw Along	Explore	Wetland Function	LS4.D				
Bird Migration Hopscotch	Explore	Migration + Wetland Function	LS4.D; LS2.C	Developing and using models, Analyzing and interpreting data	Patterns	Season Activity, Why are Wetlands Important	Before or after
Who am I Game	Explore	Bird ID				Nearby Lagoon Bird Guide	Before
Campus Bird Exploration	Explore	Bird ID + Habitat	3LS4-3	Obtaining, evaluating, and presenting information; Carrying out Investigations	Patterns, Structure and Function	Nearby Lagoon Bird Guide	Before
<b>Explain! Construct explanations and hypotheses based on observations</b>							
History of Nearby Lagoon	Explain	Background and History			Influence of Science, Engineering, and Technology on Society and the Natural World	Why are Wetlands Important?	Before or after
Season Activity	Explain	Migration + Seasons	LS2.C	Analyzing and interpreting data	Patterns, Cause and Effect	Bird Migration Hopscotch, Why are Wetlands Important	Before
<b>Elaborate! Take explanations one step further, construct arguments, come up with new questions</b>							
Why are Wetlands Important?	Elaborate	Wetland Function		Engaging in argument with evidence; Obtaining, Evaluating, and Communicating Information	Influence of Science, Engineering, and Technology on Society and the Natural World	History of Nearby Lagoon, Bird Migration Hopscotch	Before or After
Bird Report	Elaborate	Adaptation and Bird ID	LS4.B; LS4.C				Before or After