

Long Island Expedition Lesson Plan

Key Concepts

- Applying facts, inference, & experiment
- Using senses and recording observations
- Sharing observations in a concise manner
- Everyone owns National Wildlife Refuges
- Individual quiet time can support exploration & connection with the wild

Materials – refuge provided

- Tent
- Wildlife guides, assorted
- Rulers
- Magnifiers
- Pencils – regular
- Labels for reflection exercise
- Colored pencils
- Additional “Get Outside” notebooks
- Gallon-size plastic bags (70 per day)
- Clipboards
- State Parks Gear Trailer (includes life vests, rain gear, boots)
- Binoculars (from State Parks)
- Spotting scopes & tripods (from State Parks)
- Backpacks (from State Parks)
- Timers – one for each group
- Volunteer vests & nametags
- Schedules
- Laminated Habitat Map of Long Island – at least one per group
- Refuge Deeds – one per student
- List of inferences

Materials – student/classroom provided

- At least one chaperone per student group
- Inferences and plans for experiments – at least three per student group
- Wildlife pocket guides – at least one per group of students
- Pencils – two per student
- “Get Outside” observation notebooks – one per student
- Lunch & water – at least one each per participant

Set-up

- Set-up tent in lawn behind office.
- Students divided into groups of 5-7 students, each student group has at least one chaperone



- Students have their observation notebooks, pencils, wildlife guides, inferences/experiment ready (they have backpacks with lunch, etc).
- Each instructor is paired with a group and have equipment as needed (magnifiers, etc) to support their student group's inferences/experiments
- Gear trailer is parked in visitor lot near restroom, open and gear sorted by size
- Clipboards, pencils, additional notebooks, gallon bags are ready as needed
- Barge is docked at boat ramp and ready
- Long Island has been prepped (trails marked, etc)

1. Intro (5 - 10 minutes) – Led by Ranger Nancy on bus

1. Welcome and introductions – “Refuge Explorers have an important expedition today. You have been training all spring for this important event. You have facts about the refuge, observation skills and have made educated guesses about what you will find...”
2. Recap purpose of expedition – a journey to make observations and scientific discoveries to help wildlife – and review today’s lesson
3. Unload bus, split into pre-assigned small groups, instructors join assigned groups.

2. Small Group Intro (10 - 15 minutes) – facilitated by small group instructors

1. Intros – Form a circle that includes the students, chaperone(s), helpers and instructor. Introduce and facilitate name game. Instructions:
 - a) Have each person think of an animal or plant at Willapa NWR that starts with the same letter as their first name and a gesture that represents it.
 - b) Have one person say their name, the plant or animal name and make a gesture like that animal/plant.
 - c) The group repeats the name, animal/plant name and performs the gesture.
 - d) Continue until each person in the circle has shared names and gesture.
2. Gear Check & Restrooms
 - a) Have students use the restrooms, while...
 - b) Ensure that each student has: an observation notebook, two pencils, backpack, lunch, water, and raingear (as needed). Each group should have wildlife guides, inferences/experiments, additional equipment as needed.
 - c) Provide clipboards, plastic bags, notebooks and pencils, as needed.
3. Follow Schedule – the schedule will direct the group’s activities and outline timeframes.

3. General Schedule (each group will follow specific timeline)

Each group will have an opportunity to participate in the following activities:

- I. **Walk on the Art Trail and Cutthroat Climb** (45 - 60 minutes) ****Note: not all schools do this**
 - a) As a small group, travel the trail. Instructor and chaperones encourage students to observe using all their senses. Here are some suggestions for questions or activities:
 - What do you hear, see, smell, or feel?



- Give them an inference (This is an old growth forest.) and have them point out observations that support the inference.
 - Have them point out things they have learned during the classroom lessons
 - Guess the animal track signs
 - Look for specific colors, plants, animal signs – this can be a contest to who can observe it first or each student can take turns leading the group by identifying and directing the group’s attention to something.
 - What story does a particular art piece tell about the refuge?
- b) At the end of the walk, have students sit quietly for 5 minutes to make notes about the trail and their experience in their notebooks. This could include sketches, observation notes, feelings, a story...

II. ***Expedition to Long Island*** (gear-up & travel = 20 minutes each way, Expedition = 60 – 90 minutes)

Gear Up & Travel

- a) As a small group, gear-up. Instructor and chaperones help students get into appropriately sized life vests.
- b) Cross road carefully – look both ways & place an adult of both sides of group
- c) Await okay from Jonathan to load barge & load with people sitting along railings
- d) Enjoy ride!
- e) Await okay from Jonathan to unload barge. Have students leave life vests in a pile at the designated location

Experiments

- a) Gather group in a quiet location to plan where to go first using inferences and habitat maps (NOTE: this is student-directed learning, so the students should be able to tell you where they need to go). Ask:
 - What habitats do you need to visit?
 - Which one shall we go to first? And how do we get there from here?
- b) Have students lead the way, helping them as needed
- c) Have students share their inference and experiment idea with you before they conduct it. Share any safety concerns or specific areas of focus the students may need and have not thought of
- d) Have students share their observations with you after/during the experiment
 - What do they hear, smell, see, feel?
 - Is their inference correct? Why or why not?
 - What does it mean to the refuge to know this information?
 - What can they do differently to get more/better information/facts?
 - If there is time, allow the students to make adjustments and complete the experiment again



- e) Work through the process again, until all three experiments have been conducted.
NOTE: you may have to speed up the kids or leave out an experiment if time is running short.
- f) At the end of the three experiments, have students sit quietly for five minutes and record observations, thoughts, feelings or sketches in their notebooks to capture their “data”. Remind them that they will be reporting their findings to the Refuge Manager.
- g) If time allows – have the students choose what else they would like to explore

Gear Up & Travel Back

- a) Instructor and chaperones help students get into appropriately sized life vests.
- b) Await okay from Jonathan to load barge & load with people sitting along railings
- c) Enjoy ride!
- d) Await okay from Jonathan to unload barge. Have students leave life vests in a pile at the designated location
- e) Cross road carefully – look both ways & place an adult of both sides of group

4. Individual Reflection (10 - 15 minutes)

- a) Explain to students that they will have an opportunity to find a “special spot” to make observations using their senses. They can choose any location that:
 - Is within view of an adult
 - No closer than 10 feet from another student or adult
 - On the beach, in the salt marsh or forest
- b) Further explain that they will have just 2 minutes to find their special spot and get settled. Once there, they will have 10 minutes to do the following (give them each a label for their journals as a reminder):
 - LOOK – take in the big picture or focus on something small
 - LISTEN – what do you hear, where and how much?
 - FEEL – Is there wind or rain touching your skin? How does an object (such as a leaf, rock or soil) feel?
 - SMELL – Can you sniff out any odors – pleasant or unpleasant
 - RECORD – Draw or write in your journal with enough details that you will remember this spot later. You can write a poem, a song, a story, or field notes. You can draw a picture of something small or the whole view you see.
 - REMEMBER – this is your quiet time in your special spot, do not make eye contact or talk with anybody else.

5. Eat Lunch (25-30 minutes)

6. Report Observations/Findings to Refuge Manager (10-15 minutes)

- a) Gather under tent on lawn – students have their notebooks ready, instructors get refuge gear back from students (pencils, magnifiers, binos, guides)



- b) Refuge Manager thanks the students for taking this expedition to help wildlife and requests their insights and observations
- c) Students can share their observations popcorn style (anybody at random calls out) or each student one at a time.
- d) Refuge Manager offers concise, specific praise for each observation shared
- e) Refuge Manager shares how these observations will help the refuge meet our mission to protect wildlife and habitat
- f) Refuge Manager explains that each of us plays an important role in protecting refuges – we are all owners. Each student receives a Refuge Deed.

7. Closing (5 minutes) - Nancy

- a) Thanks students for their efforts and encourage them to continue making observations about nature. Scientists and citizens are making new discoveries all the time. Hope to see you soon.
- b) Direct students to buses, double check for left behind gear, wave goodbye

8. Clean-up (10 - 20 minutes) – Staff & Volunteers

- Hang up life vests & any wet gear in trailer, LOCK TRAILER
- Box clipboards
- Refresh materials such as laminated maps, notebooks, sharpen pencils
- Prepare magnifiers and other equipment
- Thank Volunteers!!!!

