

***GeoAdventure**

Leader Guide

Introduction

This GeoAdventure offers the opportunity for mystery and a sense of wonder. The activity invites you to shed your everyday persona and explore the refuge with an alter-ego, choosing to see the land as a biologist or an archeologist.

You are presented with a mystery, specific to your chosen identity. The clues to solving the mystery are discovered at each location you visit (or “waypoint”) within the Refuge.

Aiding in your adventure, you are given a small bag filled with mysterious objects (printed images, natural objects, pencil and paper, and more), along with a journal filled with the thoughts and clues left behind by a predecessor of the same profession. Inside the journal you will find the GPS coordinates needed to locate each waypoint, along with an entry filled with clues that will help you figure out what item in your bag pertains to that waypoint. Ultimately, by combining the journal entry, the bag object, and the place at which you stand, you will be able to answer the question on the card.

By answering all of the questions at each waypoint, you should gain an appreciation for how your chosen discipline contributes to the conservation mission of the Refuge, and learn important lessons about the natural world.

Your Role as a Chaperone

- Help students participate in this activity through asking leading questions and keeping them on task.
- Provide adult supervision while on-site.

Tips:

- Always have students work together on all steps and read everything out loud.
- The accuracy of the GPS varies depending on the location of satellites and the weather conditions. Stopping points will be general areas that have been summarized in the following leader answer sheet.
- Remind students to stay together and on the path.

- Use your answer sheet to guide the students. Do not give them the answers.
- To get some of the answers the clues must be thoroughly read, not just glanced at. Encourage the students to take turns reading these things out loud.

To Start

1. Read the introduction on this sheet and have the students read all of the directions for the GPS unit, out loud and together. They must figure out the GPS unit together before heading out on the trail.
2. Establish which way north is. This will help the students understand how to hold the unit.

Discussion point: Why is important to know your cardinal directions and not rely on electronics to tell you?

3. Start navigating toward the first waypoint. Stay together as a group and on the path. Remember the stopping point will be a general area depending on the accuracy of the unit in the current weather conditions. See your answer page for a description of the area.
4. When you arrive at the first point have the students take out the journal and read the corresponding journal entry. (Waypoint 1 = Day 1) Then use the clues in the bag and the surrounding view to answer the question.
5. Everyone switch roles and go to the next waypoint.

Archaeology GeoAdventure – Answer Sheet

Day 1

Stop: SW of entrance bridge, at base of hill looking at Carty Lake (SW)

Clues: Soup Recipe Card & To Do List (last item)

Answer: Soup and Trade

Day 2

Stop: Under Oak Tree N of entrance bridge

Clues: Swiss Family Robinson card, railroad ties in tree

Answer: Railroad spikes

*Hint: Encourage students to get close to the tree to inspect it.

Day 3

Stop: Front of Plankhouse (make sure they stand back far enough not to disturb the tour inside)

Clues: Wood Artifact

Answer: Wood Splitting Wedge

Day 4

Stop: About 1/3 mile down path the trail splits into three. Take the far right trail and go to an open spot off to the right lined with cedar trees.

Clues: Western Red Cedar Monthly Fall Catalog cover

Answer: Clothing

Biology GeoAdventure – Answer Sheet

Day 1

Stop: SW of entrance bridge, at base of hill looking at Carty Lake (SW)

Clues: Flood Pictures

Answer: Nutrient Rich Soil

Day 2

Stop: The oak tree branch dips low over the path and has some curious growths on it.

Clues: Insect field guide page.

Answer: Oak gall wasp.

Day 3

Stop: When the two trails join find a tree on the upper trail that is riddled with wood pecker holes.

Clues: Woodpecker field guide page

Answer: Red breasted sapsucker

Day 4

Stop: The path dead ends on the left at a HUGE old oak tree.

Clues: string, calculator, “How old is my oak” instruction sheet.

Answer: Varies depending on your measurement. Around 350 year old.

Tip: Have students do this math one step at a time. Write down the answers as you go. It can be empowering for them to figure this long equation.

Day 5

Stop: Trail opens to wetlands and the Plankhouse can be seen when looking south.

Clues: To do list – last item

Answer: The Dalles

Day 6

Stop: Basalt outcrop, looking over wetland

Clues: “Portland Streets Get Makeover” article clipping

Answer: Belgium blocks

Day 5

Stop: This one is at the end of the trail on a high place overlooking the wetlands and oaks.

Clues: Airline ticket.

Answer: British Columbia, Canada