

Water Safari	
Student name	Anna Noel, arnoel@iu,edu
Summary of lesson	Students will conduct a field investigation at an outdoor study site to discover wildlife, signs of wildlife, and the location of water sources which wildlife may use on the site.
Setting	<ul style="list-style-type: none"> • Dunn’s Woods • Dunn Meadow by the creek
Season	Any season, but best done in spring/summer
Activity Length	5-10 minutes
Type of program	School activity
Audience and Number of Participants	College students
Grade or Grade Band	Lower elementary (K-2)
ONE Academic Standard for the above grade or grade band:	<p>Next Generation Science Standards Kindergarten-Life Science 1-1 (K-LS1-1): <u>Use</u> observations to <u>describe</u> patterns of what plants and animals (including humans) need to survive.</p> <p>Correlation: Activity has students observe sources of water for wildlife and reinforces the idea that water is essential for survival of wildlife</p> <p>This activity fulfils the standard without changes.</p>
Alignment with ONE Indiana Environmental Literacy Guideline Strand <i>hyperlink</i>	Indiana Environmental Literacy Guideline Strand 1: Questioning, Analysis, and Interpretation
Objectives – one-two objectives	<p><i>By the end of the activity Students will be able to:</i></p> <ul style="list-style-type: none"> • <i>Observe, identify, describe, and illustrate wildlife and sources of water for wildlife on a study site</i> •
Materials – detailed list	<p><i>For example:</i></p> <ul style="list-style-type: none"> • <i>Hand sanitizer</i> • <i>Magnifying glasses</i> • <i>Paper and pencil to record observations</i>
Activity Outline and Details	

Introduction

1. Ask students about basic things they need to survive (food, water, shelter, etc.). Discuss where they get their water from and what the local water sources are. Also mention that beverages and food they eat are another source of water they need.
2. Ask students if other organisms use water like we do. Have them describe the ways animals use water that are like how humans use it. But wait, do all animals get their water (and resources) in the same way?
3. Ask students the difference between domesticated animals and wildlife. Explain that wildlife gets their resources themselves while domestic animals are provided for by humans. So, when we're talking about how animals get water we're NOT talking about your dog or cat. Have students say some wild animals that they know of in the area.
4. Inform students that they will be conducting a study of the wildlife in the area and where they get their water.

Forming a Question

1. Since discussing where humans get their water, discuss with students where they think animals get their water from.
2. Remind students that they want to figure out what wildlife lives in the area and what their water sources are. Ask for ideas on questions that could help them find that out. Ex: what wildlife can we find at the site? What are the different kinds of water sources? Where on the site will we find wildlife or clues of wildlife? What clues can we find that wildlife has been in the area?
3. Choose questions to find the answers to.

Conducting the Field Activity

1. Hand out paper and magnifying glasses and explain that the students will be acting as scientists conducting a field survey on the area to answer the questions they came up with in class. To conduct the survey the students should look for wildlife, any signs of wildlife (tracks, feathers, bee/wasp nests, holes in trees, etc.) and water sources that the wildlife might use.
2. Send the students out into the area to search for wildlife and signs of wildlife (search for water after this). Have students illustrate what they see on the paper with a rough drawing of its location.
3. If students bring back something that they can't identify, don't immediately do it for them. Direct their attention to how it looks. Have them describe the animal and draw it well enough or take a picture to identify later.
4. After looking for signs of wildlife for a few minutes, have the students look for potential water sources for the wildlife they found or think live there. On the back of the paper they have, students should illustrate the water source and its location.

Drawing Conclusions

1. Have the students come together as a group and say briefly what they found. Ask students if they see any patterns in what was found (what animal was seen most often, what type of water source was most abundant, was there something they expected to see but didn't and vice versa?)
2. Reinforce that water is essential for the survival of wildlife. Ask students what the relationship is between the presence of water and the presence of wildlife. Are there actions we could

<p>take to help wildlife or improve water availability on the study site? How would we tell if the actions were successful?</p>	
<p>Assessment (can be included in your activity details)</p>	<ul style="list-style-type: none"> • Identify three places where wild animals can find water on the study site. • Describe three ways students could improve water sources for animals in their area.
<p>TWO Suggested modifications for poor weather or participants of differing abilities or for COVID</p>	<ul style="list-style-type: none"> • A student with a physical disability could help identify animals brought back • A student unable to go search for things could be the designated artist for a group of other students and what they find. • To stay safe with increased risk of COVID students could wear masks, stay distant, and sanitize their hands and the magnifying glass they use.
<p>This lesson was adapted from this Aquatic WILD activity (name and page number).</p>	<p><i>Adapted from Aquatic WILD's Water Safari page 37</i></p>

This lesson plan was an assignment for the course Field Techniques in Environmental Education, Indiana University- Bloomington