



OO, OO, OO NATURE! (PART 1 OF 3) : OBSERVING OUTSIDE (OUTDOOR BASICS FOR CITY-DWELLING MIDDLE SCHOOLERS)

This lesson plan was created by Leah Guenther as part of the Acadia Teacher Fellows (ATF) program. ATFs created lesson plans are created by educators for educators. Any books or links suggested in this curriculum are not an endorsement by the National Park Service.

Grade Span	Grades 6-8
Time Span	<p>This lesson is part of a series of three lessons on basic outdoor observational skills for middle school students.</p> <p>This first lesson in the series takes approximately 90 minutes, equally divided between preparing for observations, conducting observations, and discussing what was observed.</p>
Standards	<ul style="list-style-type: none"> • CCSS.ELA-LITERACY.CCRA.W.4: Produce clear and coherent writing in which the development, organization and style are appropriate to task, purpose, and audience. • CCSS.ELA-LITERACY.CCRA.W.7: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation. • CCSS.ELA-LITERACY.CCRA.SL.4: Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
Focus Question	What elements of the natural world are present in our particular city space?
Overview	<p>This lesson is part one (the first set of OOs!) in a three-part framework called “OO, OO, OO, Nature!” that teaches students about three types of outdoor observation:</p> <ol style="list-style-type: none"> 1) <u>O</u>bserving <u>O</u>utside: observe the natural elements at their school 2) <u>O</u>bserving <u>O</u>urselves: observe our own behavior outdoors 3) <u>O</u>bserving <u>O</u>thers: observe others’ behavior outdoors <p>The repeating “OO” mnemonic is designed to remind burgeoning nature observers of these three different ways of observing when outdoors.</p>
Objectives	<ul style="list-style-type: none"> • Students will predict what natural elements are on the school campus. • Students will check for predicted elements and observe additional natural elements that engage their curiosity.



	<ul style="list-style-type: none"> • Students will compile data on the campus's natural elements and create a worksheet for future students at their school to use, to guide those students' nature observations.
Materials Needed	<ul style="list-style-type: none"> • Whiteboard or chart paper to collect class perceptions and predictions about what they might see, as well as to report results after observations • Slides or copied images with some options for tree, plant, bird, and insect types that students are likely to find on the school grounds, along with other types in each category • Worksheet entitled "OO, OO, OO Nature!: Outside Observations" (below) for recording outdoor observations • Worksheet entitled "Finding Nature at our School" (below) for future nature-observing students to use at your school • Clipboards, pens/pencils
LESSON	
Vocabulary	<p>Observe: to notice or perceive something and register it as being significant</p> <p>Natural: existing or caused by nature; not made or caused by humankind</p>
Teacher Prep	<ul style="list-style-type: none"> • Identify an area on the school grounds where students can observe natural elements. This can be as small as a patch of grass, a single tree, or an area around which insects tend to gather. • In that area, identify elements of nature that are commonly found. For example: what trees or flowers are on your grounds? Are there certain insects always in the area? What birds have you noticed flying about? • After identifying what natural elements are common to your grounds, create slides or handouts with those images, along with other images to choose from. These slides or handouts can be used to push students' thinking as they brainstorm and predict what they will see outside. They will also be used to teach students about other elements of nature that they may see off school grounds but in their city generally. • Prepare students for spending roughly 30 minutes outside. • Prepare clipboards and pens/pencils with the worksheet entitled "OO, OO, OO Nature!: Observing Outside" (below) for students to take outside with them. • Copy the worksheet entitled "Finding Nature at our School" (below) for students to complete after their outdoor observations.
Background	<p>Students whose schools are in urban settings often do not have many opportunities to observe the natural world. This lesson takes into account the challenges that an urban landscape presents by asking students to notice what is there, rather than what is not. The final product will be the completion of a worksheet that future students will use to make observations at the</p>



	<p>school, observations that are specific to that particular urban space.</p> <p>The goal of designing this school-specific observational checklist for future students is to introduce the idea that nature can be found everywhere, if you slow down and observe carefully. Ideally, it will broaden students' idea of their school community to include the natural world outside of it.</p>
<p>Procedure</p>	<p>Engage: Before heading outdoors, engage the class in a discussion about the outdoors with the following questions:</p> <ol style="list-style-type: none"> 1) What are some ways to spend time outside? 2) What are some concerns about going outside? <p>Using the board or chart paper, record students' predictions to the following questions:</p> <ol style="list-style-type: none"> 1) If we go outside to our school grounds, what types of plants will we see? 2) What types of insects will we see? 3) What types of birds will we see? 4) What types of animals will we see? <p>As students suggest what they might see, be prepared with follow-up prompts:</p> <ul style="list-style-type: none"> • Push students to think about <i>types</i>. If they say they'll see "trees," for example, be prepared to push them to get more specific. If you know you only have oak trees on the premises, show them prepared pictures of oaks and their leaves, along with other tree types (preferably common to your area), from which they can choose. • Urge students to get <i>specific</i>. If you know students will mention the bees or butterflies that are always in the parking lot, present prepared images of several regional varieties to prepare them to make more detailed observations. <p>After the class discussion, have students individually select what they think they'll see outdoors. They should select 4 items that they are looking for outside and fill them into spaces 1-4 in the "PREDICTIONS" section of the attached worksheet, "OO, OO, OO Nature!: Observing Outside" (below). Draw their attention to the mnemonic of "OO, OO, OO Nature!" at the top of their worksheet, letting them know that "Observing Outdoors" is the first of three "OO"s, and thus the first of three types of nature observation they will learn.</p> <p>Explore: Head outdoors, encouraging students to look for their chosen 4 items. They can record on the top portion of their worksheet whether they saw what they were looking for, what condition it was in or activity it was performing, and</p>



	<p>they can sketch a detail of the item.</p> <p>Explanation: First, gather students after about 15 minutes, or when most students have been able to search for what they predicted they'd find. Lead a discussion about what students have located and what they noticed.</p> <p>Next, send students off to do a second set of observations, this time about natural items that they haven't yet examined but which roused their curiosity. They can record these items on the "Other Observations" part of their worksheet. If the teacher notices that students have found natural elements that s/he did not already research or discuss, s/he might snap images on the iNaturalist or Seek apps to prepare for the follow-up discussion of observations.</p> <p>Extension: Return to the classroom, and lead a class discussion about what the class saw outside. Use the following questions as prompts, and record student responses on the board or on chart paper:</p> <ol style="list-style-type: none"> 1) Which items that we predicted did we actually see? 2) What other items did we see that are part of our school's natural community? 3) What do we need to know about the items we found in our school's natural community?
<p>Wrap-Up</p>	<p>Evaluate: Using the discussion prompts above, direct students to choose the top 7 natural items that other students are most likely to see outside of the school, items that those students would be most interested to observe in the school's outdoor space.</p> <p>Direct students to the first column of the "Finding Nature at our School" worksheet. They should fill in what future students should be looking for, and details that will help those students identify the item. These worksheets can then be distributed to another class at your school.</p>



OO, OO, OO NATURE!: OBSERVING OUTSIDE

A. PREDICTIONS: Choose 4 natural items that you'll be looking for outside.

What might you see?	Did you see it?	What was its activity / condition?	Sketch a detail of what you saw
1.			
2.			
3.			
4.			

B. OTHER OBSERVATIONS: Record 4 other natural items you saw outside.

I noticed...	I wonder...	It reminds me of...
1.		
2.		
3.		
4.		



FINDING NATURE AT OUR SCHOOL

We are looking for... Details to look for are...	Did you find it? What do you notice about it?	What do you wonder about it?	Sketch a detail of what you saw
1.			
2.			
3.			
4.			
5.			
6.			
7.			