

Wetland Survey

Grade 7 – Science and Technology



Lesson Details

Grade Level:	7	Curriculum Links:	Science and Technology	Time Needed:	2 hours
Learning Goal	To learn about the interactions of different organisms by conducting in-person field research. To investigate what is within a wetland ecosystem, and how certain organisms might interact with each other and their environment.				
Success Criteria	By the end of this activity, students will have a general understanding of what biotic and abiotic organisms are. Students will understand how organisms in their local wetland interact and create a functioning ecosystem.				
Specific Expectations	<p><i>Understanding Life Systems: Interactions in the Environment</i></p> <ul style="list-style-type: none"> • Demonstrate an understanding of an ecosystem as a system of interactions between living organisms and their environment; • Identify biotic and abiotic elements in an ecosystem and describe the interactions between them; • Describe the role and interactions of producers, consumers and decomposers within an ecosystem. 				
Materials Needed	Worksheet (attached), Pencil, Clipboards, Appropriate Clothing and Footwear (Rainboots), Field Guides (optional).				

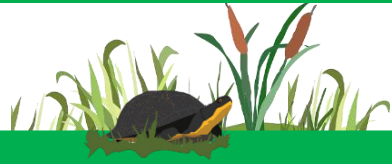
Lesson Description

Overview	Students will go out into a wetland and try to identify what they see in the field. Back in the classroom, students will talk about what they found, and how all the pieces of what they surveyed interact together.
Activity	<ol style="list-style-type: none"> 1. Begin by introducing the students to wetlands. 2. Discuss with students who Wetland Scientists and Researchers are, and how their jobs sometimes include going into wetlands and taking note of every species they see. 3. Before heading out to explore the wetland, give each individual student (or groups of students, however you decide to split them up) a clipboard, pencil, and the attached worksheet. 4. Send the students out to explore the wetland, reminding them not to take anything from nature, and to take anything with them that they already brought themselves. Remember, be kind to the environment. 5. Have students fill out the attached worksheet while on their walk. 6. Back in the classroom, as a class, discuss what you have found. 7. End the discussion by asking the students what the benefits of wetland ecosystems are to humans.
Background Information	<p>Wetland Scientists and Researchers are crucial to the health of wetland ecosystems; inventorying wetlands can sometimes help to protect wetland from development and preserving the plants and animals within them.</p> <p>Wetlands are crucial to the health of water systems. If a wetland was part of the human body, it'd be known as our kidneys. They filter water and regulate the distribution of its flow. Without wetlands, silt, sand, and pollutants would flow directly into our lakes, rivers, and oceans. It is important to note that wetlands are also a home to many</p>

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	species, not just plants. Turtles are most often found in wetlands. They are considered keystone species, in other words, incredibly valuable and integral to the health of the water. Likewise, wetlands provide a home for animals and contribute to their overall well-being. Wetlands teach us the relationships between the environment, plants, and animals.
Blacklist Masters	<ul style="list-style-type: none"> • Worksheet (attached) • Video Link(s): Wetlands and Turtles in Ontario • For more information, please visit https://www.turtleguardians.com/sample-page/turtle-habitats/
Place-Based Learning	By visiting a wetland, students will learn the importance of them for ecosystem health as well as how wetlands impact our everyday life.
Inquiry-Based Learning	<p>Using Open Inquiry, students will conduct their own survey as they explore a wetland collecting data about the biotic and abiotic things that are present.</p> <p>Ask the students:</p> <ul style="list-style-type: none"> • What is a wetland and why is it an important part of an ecosystem? • How does each living organism within a wetland interact with the others? • How do these organisms interact with abiotic elements in the environment? • Were there any human abiotic elements in the ecosystem? • Were these human elements negative, or positive to the organisms living in this wetland?
Turtle Stories	Make a replica of the wetland you visited. Try creating a wetland in a pan, or a wetland in a bottle using natural materials. Students are encouraged to share their experiences, pictures and worksheets on the Turtle Stories website, found here: https://www.turtlestories.ca/
Turtle Guardian Program Links	After completing Level 1 (Ontario Turtle Identification) of the Turtle Guardian Program , students can move onto Level 2 (Wetland Watchers). In this level the students learn how to monitor wetland habitats, contribute to knowledge of wildlife-biology in the region, and are able to adopt a wetland to monitor for turtles, birds, and other animals. For more information, please visit https://www.turtleguardians.com/what-is-a-turtle-guardian/

My Notes



Wetland Survey

Item (E.g. Maple Tree, Rock, Garbage)	Biotic or Abiotic? (Living or Non-Living)	Notes About Interactions (E.g. Turtle basking on a dead log)

Additional Notes:
