

Wetland Characteristics

Grade 3 – Science and Technology



Lesson Details

Grade Level:	3	Curriculum Links:	Science and Technology	Time Needed:	45 minutes
Learning Goal	To learn about the characteristics of a wetland and the various types of wetlands while also testing their knowledge. Students will also learn about conservation by visiting a real wetland.				
Success Criteria	By the end of this lesson, students will understand the characteristics of the various types of wetlands and be able to answer questions about them. Students will also be able to identify ways in which humans can help protect wetlands.				
Specific Expectations	<p><i>Understanding Life Systems: Growth and Changes in Plants</i></p> <ul style="list-style-type: none"> Assess ways in which plants are important to humans and other living things, taking different points of view into consideration, and suggest ways in which humans can protect plants; Assess the impact of different human activities on plants, and list personal actions they can engage in to minimize harmful effects and enhance good effects; Investigate ways in which a variety of plants adapt and/or react to their environment, including changes in their environment, using a variety of methods. 				
Materials Needed	Worksheet (attached), Pencil, Appropriate Outdoor Clothing (Rainboots), Notebook, Clipboard (Optional), Colouring Pencils, Crayons, Markers.				

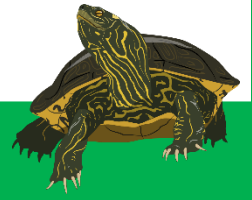
Lesson Description

Overview	After visiting a wetland, students will complete a worksheet based on their observations and newly gained knowledge about the various types of wetlands.
Activity	<ol style="list-style-type: none"> Introduce the topic of wetlands to the students while also discussing the various types of wetlands. Take the students to a real wetland to observe the local environment. Students should write notes of their observations in a notebook. Back in the classroom, distribute the attached worksheet and have the students complete it independently. Optional: Take up the worksheet as a class.
Background Information	<p>Wetlands are habitats where water is contained on land for more than 45 consecutive days of the year, and therefore where organic spongy soil develops. The plants that love water and organic soils are unique and, with the soils, are able to remove excess nutrients and pollutants from the water and environment. The spongy soils also control water levels, by soaking up excess water and reducing flooding, and by providing water when everything else is dry. Wetlands teach us the relationships between the environment, plants, and animals; in fact, wetlands are habitats that are needed and used by more than 70% of all of Ontario's mammals, birds, fish, amphibians, and bugs.</p> <p>There are the different types of wetlands in Ontario. Swamps are wetlands that are dominated by live or dead trees. Here the soil is very mucky and organic. Carrs are wetlands that are dominated by shrubs – very similar to swamps but the woody plants are not as large. Bogs are usually in isolated pockets, and covered in sphagnum moss,</p>

Lesson Description

	<p>known as "quaking mats". Bogs have very acidic waters. In central and northern Ontario fens are very similar to bogs; they are sphagnum dominated, but are less isolated with some movement of water, and therefore with more nutrients that would support some tree species like Tamaracks or black spruce. Marshes are wetlands that may look similar to ponds, however they may be large or small, in pockets on the landscape or adjacent to rivers and lakes, but are often shallow areas where sunlight can reach the bottom of the basin resulting in lots of plant growth, and where water remains for many months resulting in the formation of organic spongy soils. Marshes often have lots of emergent plants such as grasses, sedges, and cattails and/or areas of floating plants such as white or yellow water lilies or duckweed.</p>
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	<p>Students will have first-hand experience exploring a wetland and writing down their observations. Having this knowledge and experience will allow the students to become more conscious about the environment and how to help conserve it.</p>
Inquiry-Based Learning	<p>Using Confirmation and Structured Inquiry, students will use their observational skills to confirm the importance of wetlands and determine its characteristics.</p> <p>Ask the students:</p> <ul style="list-style-type: none"> • What is a wetland? What does it look like? What is part of it? • Who lives in a wetland? Animals? Plants? • What can we do to help protect and conserve wetlands?
Turtle Stories	<p>What are the different components of a wetland? Try creating your own mini wetland in a bottle by collecting various materials such as soil, rocks, leaf litter, and water. Students are encouraged to share their experiences, pictures, and worksheets on the Turtle Stories website, found here: https://www.turtlestories.ca/</p>
Turtle Guardian Program Links	<p>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/</p>

My Notes



Wetland Characteristics

Part 1. Fill in the blanks

Wetlands are habitats where water is contained on land for more than 45 consecutive days of the year. The plants in wetlands love water and organic soils. The soils are able to remove excess nutrients and pollution from the water and environment. The spongy soils also control water levels, by soaking up excess water and reducing flooding, and by providing water when everything else is dry. Wetlands are found in the middle of forests and fields, at the edges of lakes and rivers, and as ponded areas that beavers have dammed among the rocks.

Word Bank:

Flooding

Forests

Water

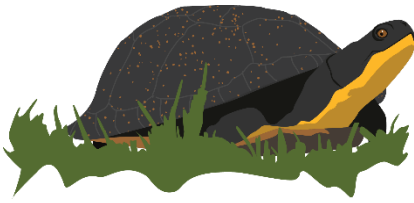
Beavers

Levels

Land

Soils

Pollution



Part 2. Matching

There are many different types of wetlands in Ontario.
Can you match the correct wetland to its definition?

Swamp

Less isolated with some movement of water. Lot's of nutrients that support the trees. Similar to bogs.

Carr

Isolated in pockets and has lots of moss. The water is very acidic.

Bog

Many live and dead trees. The soil is very mucky and organic.

Fen

Look similar to a pond. Close to rivers or lakes and can be found where there is shallow water. Lots of plant growth (like cattails) and spongy organic soils.

Marsh

Many shrubs and other small woody plants. Similar to a swamp.

Part 3. Answer the following questions

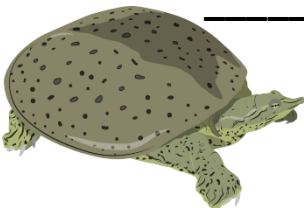
1. What type of wetland did you visit?

2. What observations did you make when visiting the wetland?

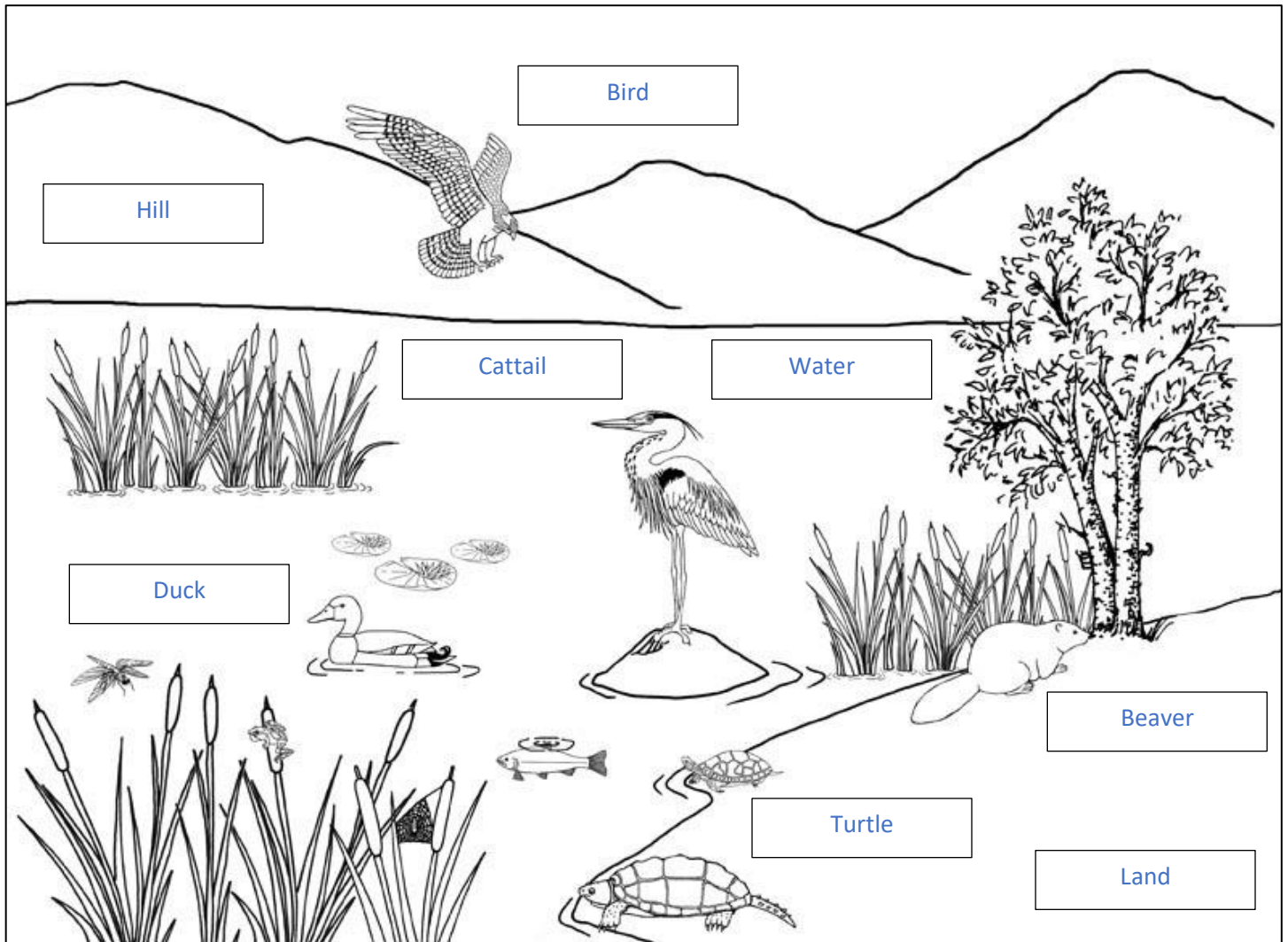
3. What characteristics does a wetland have?

4. Who lives in a wetland? Animals? Plants?

5. What can we do to help conserve and protect wetlands?



Part 4. Colour and Label the Wetland



Word Bank:

Water

Land

Bird

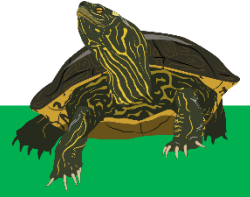
Turtle

Beaver

Cattail

Duck

Hill



Wetland Characteristics

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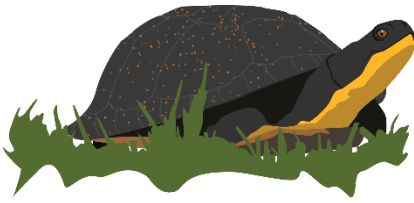
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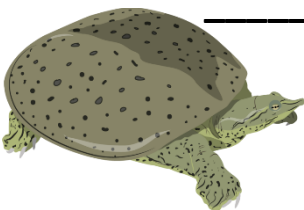
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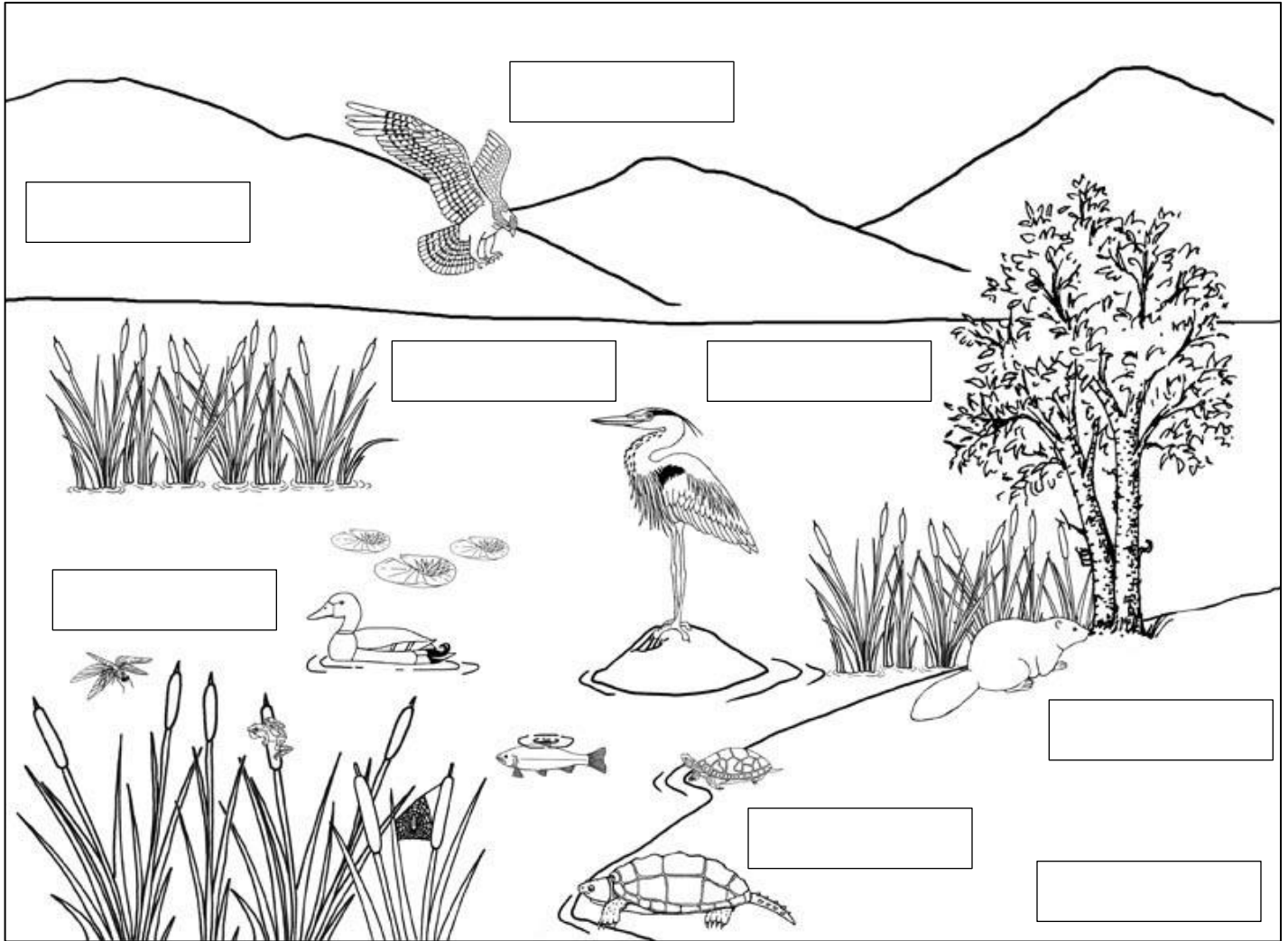
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