

# Turtle Characteristics

Grade 4—Science and Technology

Turtle Guardians



## Lesson Details

<b>Grade Level:</b>	4	<b>Curriculum Links:</b>	Science and Technology	<b>Time Needed:</b>	30 mins
<b>Learning Goal:</b>	To understand how characteristics relate to function, and use this knowledge to understand the difference between specialists and generalists.				
<b>Success Criteria:</b>	By the end of the lesson, students will be able to identify a specialist. Students will also know the parts of a turtle.				
<b>Specific Expectations:</b>	<p><i>Understanding Life Systems: Habitats and Communities</i></p> <ul style="list-style-type: none"> <li>• Explain why changes in the environment have a greater impact on specialized species than on generalized species.</li> <li>• Describe structural adaptations that allow plants and animals to survive in specific habitats.</li> </ul> <p><i>Language - Reading for Meaning</i></p> <ul style="list-style-type: none"> <li>• <i>Making Inferences/Interpreting Texts: make inferences about texts using stated and implied ideas from the text as evidence.</i></li> </ul>				
<b>Materials Needed:</b>	Worksheet (attached), pencils				

## Lesson Description

<b>Overview:</b>	Learn about general characteristics of turtles and the difference between specialists and generalists with examples.
<b>Activity:</b>	<p>Students will work through the provided worksheet. Using reading skills, they will prove an understanding of generalists and specialists and use inquiry to infer as to why specialists are more effected by changes in the environment.</p> <p>This activity can be supplemented with the “Threats Video”, where students will learn about what threatens turtles.</p> <p>This activity can be supplemented with the “Identification Video”, where students will learn about general turtle characteristics and how to identify Ontario’s turtles.</p>

## Lesson Description

<b>Activity Continued:</b>	
<b>Blacklist Masters:</b>	<ul style="list-style-type: none"><li>• Classroom worksheet (attached)</li><li>• Turtle Guardian Videos</li></ul>
<b>Turtle Guardians Program Links:</b>	In Level 1 of the Turtle Guardians program, students learn how to correctly identify Ontario Turtle species.

## My Notes

# Turtle Characteristics

Match the Characteristic with the Purpose:

Webbed Feet

Long Tail

Hard Shell

Extra Eyelid

Like a rudder on a boat,  
helps them to steer when  
they swim

For swimming fast!

Help to see underwater,  
like built in goggles

Protection

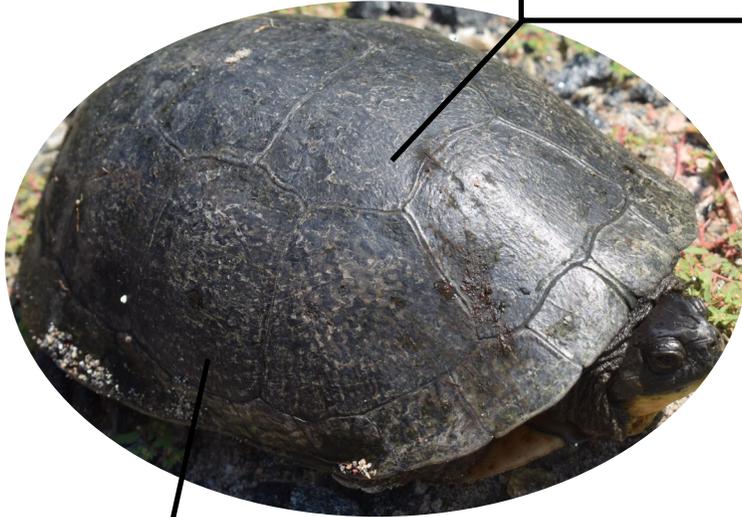
Turtles hibernate at the bottom of lakes and large wetlands in the winter. They bury themselves in the mud to keep warm. How do they breathe under the water all winter? The answer may surprise you!



We breathe through our butts! Turtles have special blood vessels that allow us to take oxygen out of the water.

# Turtle Characteristics

Label the Parts of a Turtle:



**Legend:**

Head	Scute	Foot
Carapace	Plastron	

# Specialist vs Generalist

**Specialists** are picky. They are found in only one kind of habitat. They often have a specific diet.

**Generalists** can live in a variety of habitats. They often eat more than one thing.

## Let's Learn About 2 Different Kinds of Turtles:

Northern Map Turtles are found in large lakes and rivers with a healthy mollusk population. Mollusks include snails and mussels. The Map Turtle has a powerful jaw, and a ridge lining their mouth made of keratin (our fingernails are also made of keratin). They have this characteristic to allow them to eat mollusks. Map Turtles have large webbed feet that make them strong swimmers. They can be identified by the yellow markings on their bodies. The design on their shells looks like contour lines on a map.



Painted Turtles are found in lakes, rivers, ponds and wetlands. They have yellow and red markings on their face and legs. They will eat algae, insects, fish, frogs, dead matter and plants. They have a dark shiny looking shell, and are often seen basking (laying in the sun) on logs and rocks.

1. Which turtle do you think is the specialist? Why?

2. Which turtle do you think would be affected more by changes to the environment? Why?

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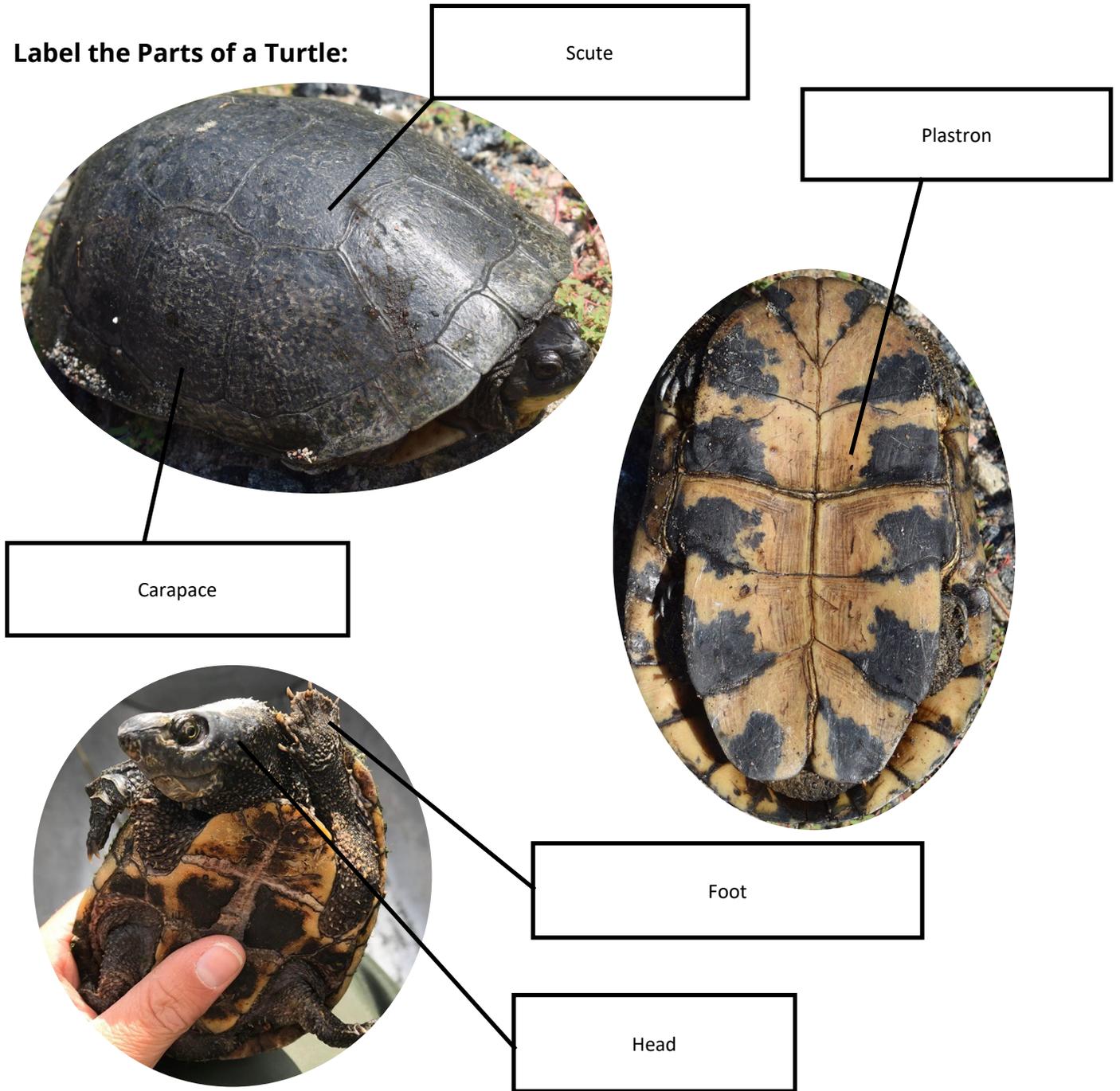
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1. Which turtle do you think is the specialist? Why?

The Map Turtle is the specialist because it can only live in large lakes and rivers, and it has a specific diet.

2. Which turtle do you think would be affected more by changes to the environment? Why?

The specialist would because it would take one small change for them to disappear. If mollusks disappeared in the lake or river, so would the Map Turtles. The Painted Turtles would be able to better adapt to changes because they can eat more than one thing and live in many habitats.