

Graphing Our Favourite Turtles

Grade 3 – Mathematics



Lesson Details

Grade Level:	3	Curriculum Links:	Mathematics	Time Needed:	40 minutes – 1 hour
Learning Goal	To gather and organize categorial data that has been collected amongst peers in the classroom. Students will display the data on bar graphs with appropriate labels, then interpret the data presented.				
Success Criteria	By the end of this lesson, students will have produced their own bar graph using categorial data they collected and interpret the data in prompts.				
Specific Expectations	<p><i>Data Management and Probability</i></p> <ul style="list-style-type: none"> Collect data by conducting a simple survey about themselves, their environment, issues in their school or community, or content from another subject; Collect and organize categorial or discrete primate data and display the data in charts, tables and graphs (including vertical and horizontal bar graphs) with appropriate titles and labels and with labels ordered appropriately along the horizontal axes, as needed, using many-to-one correspondence; Read primary data presented in charts, tables and graphs, then describe data using comparative language and describe the shape of the data; Interpret and draw conclusions from data presented in charts, tables and graphs. 				
Materials Needed	Worksheet (attached), Pencil, Colouring Pencils (optional), Graph Paper.				

Lesson Description

Overview	Students will collect data from classmates about which Ontario turtle is their favourite. After collecting the data, students will then graph it appropriately and interpret.
Activity	<ol style="list-style-type: none"> First introduce a brief overview of the 8 species of Ontario turtles to the class. Next, using the provided worksheet, have students walk around the classroom, visiting each of their peers asking, “which Ontario turtle is your favourite?”. Students will tally these results. Optional: This activity can be simplified by the teacher asking students to raise their hand when prompted about their favourite turtle. The teacher then tally’s the results and shares with the class. Once the data has been collected, students will use graph paper to display their data by creating a bar graph. After this, students will interpret their data on the worksheet by answering the prompted questions.
Background Information	<p>Blanding’s Turtle: Bright yellow neck, highly domed carapaces (upper shell), many irregular radiation dots (small and discrete) on their shells, large black symmetrically arranged scutes (triangular sections).</p> <p>Painted Turtle: Red colouring underneath carapace and on neck, yellow stripes on face, smooth carapace, pale plastron (under-shell).</p> <p>Map Turtle: Carapace is green to olive-brown with thin brown-yellow lines that are patterned and look like a “map” and is noted to have a thin ridge running along the centre from head to tail, small yellow spot is found behind its eyes.</p>

Lesson Description

	<p>Spotted Turtle: Black carapace that is sprinkled with a few larger yellow spots, spotting on head and limbs, both sides of the head are marked by large orange spots that look like ears.</p> <p>Snapping Turtle: Rough brown-olive to dark green carapace, large thick legs and toes with sharp claws, very small plastron, pointed jaw-tooth, rough ridges on tail and carapace.</p> <p>Spiny Softshell Turtle: Soft leathery speckled carapace, olive green to light frown yellow in colour, long pig-like snout/nose.</p> <p>Stinkpot Turtle: Tipped protruding and tiny nose, high domed carapace, light olive to black in colour, their plastron is small and yellow-brown in colour.</p> <p>Wood Turtle: Carapace has large sculpted scutes resembling irregular pyramids, the shell looks like “wood”, plastron is yellow with black spots, the skin of the neck and forearms are reddish brown to bright orange.</p>
Blacklist Masters	<ul style="list-style-type: none"> • Worksheet (attached) • Video Link(s): Ontario Turtle Identification • For more information, please visit https://www.turtleguardians.com/sample-page/id-turtles/
Place-Based Learning	Students are encouraged to visit a wetland to try to spot their favourite turtle in nature.
Inquiry-Based Learning	<p>Using Guided Inquiry, students will collect data about their peer’s favourite turtles and create a bar graph from the results.</p> <p>Ask the students:</p> <ul style="list-style-type: none"> • What are the 8 different species of Ontario turtles? • What is your favourite turtle? Why? • Why is collecting data from a large group better than a small group? • What is a bar graph?
Turtle Stories	What is your favourite Ontario turtle and why? Draw a picture of your favourite turtle in its home. 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

Graphing Our Favourite Turtles

Walk around the classroom and collect data from all your classmates.
Using tally marks, keep track of which Ontario Turtle is their favourite!



Common Snapping Turtle



Midland Painted Turtle



Blanding's Turtle



Wood Turtle



Spotted Turtle



Eastern Musk Turtle



Spiny Softshell Turtle



Northern Map Turtle

Graphing Our Favourite Turtles

Question 1.

The mode of our class' favourite turtle is:

My favourite turtle is:

Why?

Question 2.

Our classroom's least favourite turtle is:

My least favourite turtle is:

Why?

Questions 3.

Describe the pattern (distribution) of the data by examining the graph you created.
