Math
2nd Grade

Lesson - Math: Beaver Math | 30 minutes each

Activity 1 – Beaver Map Math Worksheet
Activity 2 – Make a Bar Graph

Summary

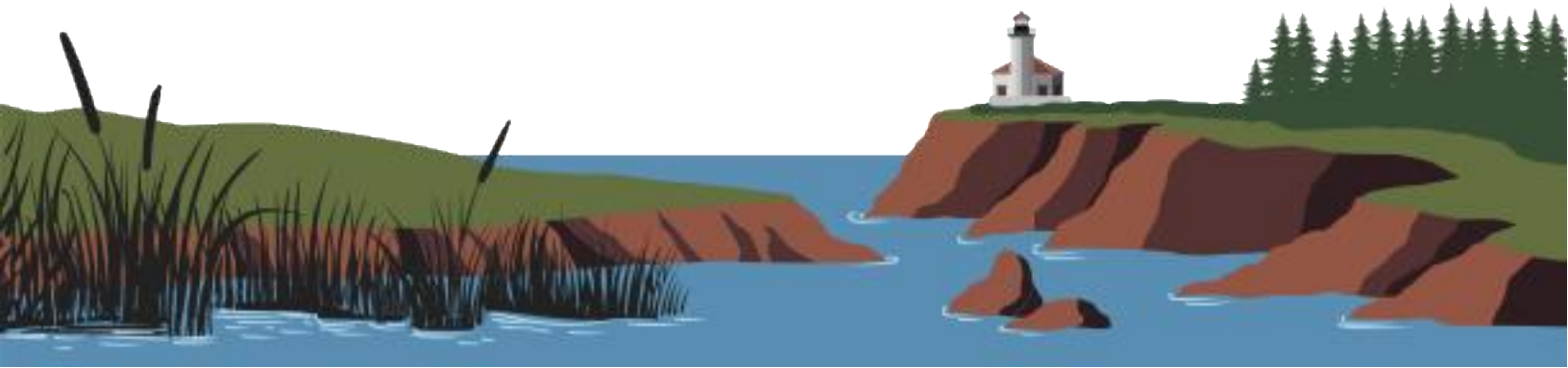
This lesson uses maps and classroom data to show how numbers, measurement, and representation help make sense of shared information and support group understanding.

***Key Discovery**:*
Math tools such as map legends, scale, and bar graphs help represent distance, quantity, and shared information in clear ways.

Standards	• Primary: CCSS.MATH.CONTENT.2.MD. D.10
Materials	• Beaver Math Map Worksheet • Beaver Math Map • Beaver Bar Graph Worksheet • Beaver Story Bar Graph PowerPoint • Make a Bar Graph
Vocabulary	• **Map Math:** A way of calculating distances in map measurement form. • **Map Scale:** Defines the ratio between the distance on a map to corresponding distances on the ground. • **Bar Chart/Bar Graph**: A chart or graph that presents categorical data. • **Vote:** An official choice on some specific question or issue. • **Majority Vote**: The highest number of votes received.

Setup & Logistics:

- Print the Beaver Map Math, the Beaver Bar Graph, and the Beaver Story Worksheets for use.
- Prepare the Bar Graph PowerPoint for display.
- Ensure graphing materials are available (e.g., crayons or markers in designated colors).
- Identify a surface for recording class data (whiteboard, chart paper, or projected slide).



Language Extension:

Language Audio to be added soon.

Class Flow:

Activity 1: Map Math

Step 1: General introduction to geography and maps

- Teacher Prompts:
    - Maps are special pictures that help us to see a place from above, like a bird's eye view.
    - Maps use symbols, such as a compass rose or a legend to give us important information about directions, distance and features.

Step 2: Map Math Worksheet

- Distribute the map math worksheets.
- Invite students to work individually, in pairs, groups, or the whole class to complete the work.

Step 3: Whole Group Discussion

- Invite students to come together as a group.
- Discuss the worksheets and answer any questions.
- Suggested Prompts:
    - What strategies did you use to find your answers?
    - What did the map help you understand about distance or location that might have been harder to see without it?

Activity 2— Make a Bar Graph

Step 1: General Introduction to Data and Choice

- Introduce voting as a way to gather classroom data.
- Clarify that each student chooses one option.

Step 2: Interpreting Representations

- Display and share the Math Bar Graph PowerPoint with the students.
- Pause to invite questions or notice patterns in the examples shown.



Step 3: Collecting Classroom Data

- Invite students to vote, using a visible method such as tallies on the board.
- Note that each student contributes one vote to the group total.

Step 4: Representing Data

- Distribute the Bar Graph Worksheet to students.
- Invite students to use the collected data to complete the bar graph.

Step 5: Interpreting and Discussing Results

- Invite students to notice which choice has the most votes and the least votes.
- Encourage sharing about whether the class results match individual choices.
- Teacher Prompts:
    - What does the graph help us see about our class choices?
    - How does the graph make it easier to compare the results?
    - Each person's opinion and voting choice is valid.

