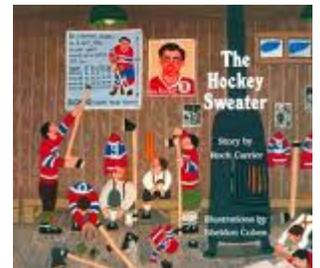


Math Topic: Developing Criteria for a Bar Graph and Double Bar Graph

Grade Level(s): 4/5



Learning Outcomes:

Grade 4

D2: construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions

Grade 5

Construct and interpret double bar graphs to draw conclusions

Context of Lesson within the unit:

This works as launch to a graphing unit where students develop the criteria, self and peer assess the graphs they create.

Materials:

Graph paper

Sample graphs – exemplars off web site

Books: If the World Were a Village and The Hockey Sweater (English and French)

Sheets

Next page for lesson ideas.

Lesson Ideas:

1. Share Learning Intention:
 - I can explain the criteria for a good bar (double bar) graph
 - I can make a graph that matches the criteria
2. Distribute exemplar bar graphs to pairs or groups of students. Explain that the same data was used to make each graph. Their challenge is to determine the graphs that communicate the data the clearest and to be prepared to explain why. Distribute the developing criteria sheet for students to make notes of what they noticed.
3. As a class working through each graph – discuss what works and what doesn't with each, making sure that the following is discussed (specific title, labels, scale, origin, accurate data, spacing and a detailed summary statement).
4. Have students complete the rubric for a 3 – fully meets. What must a graph include?
5. Record the details of number 4 in the rubric (see sample created by one class).
6. Students then attempt to graph the same data, presenting it in the best graph possible.

Basketball Scores for the Jaguars

Game	Score
1	67
2	72
3	71
4	68
5	80

7. The next day, using the criteria developed have students self and peer assess their own graphs, prior to making a new one. Use any of the information in the book "If the World Were a Village" to help generate data. The more spread the numbers, the more challenging it is to determine an appropriate scale.
8. Repeat the process for a Double Bar Graph for the 5's with students examining the exemplars and changing the criteria to reflect the details of a double bar graph.
9. Using a 'matching' paragraph in the Hockey Sweater, students are then to collect data – number of words, letters, commas, words I know etc. Grade 4's graph the French and the Grade 5 complete a double bar graph that compares the two language versions.
10. Peer and self assessing using the rubrics.

Lesson Review:

- Did I connect the concept to previous experiences?
- Did I provide individual choice?
- Was there an open-ended task?
- Was it possible to enter the task from a variety of levels?
- Was time provided for 'Turn and Talk' for sharing of strategies and perspectives?