Algebra/Geometry Institute Summer 2008

All About Graphs
Miter Franklin
Robinsonville Elementary

Grade Level: 3 - 4

1 Teaching objective(s)

-Gather, organize, and display data in an appropriate chart or graph.
-Read, interpret, and predict data from charts and graphs.

2 Instructional Activities

-The teacher will access students prior knowledge about graphs by asking the following questions:

1. What is a graph?
2. Where and when can graphs be used?
3. Do you think graphs are important, why or why not?

-The teacher will then discuss with students what graphs are and how they are used. The teacher will tell students that a graph is a tool used to organize data or information. The teacher will then show students an example of a bar graph. The title will be Our Class' Favorite Colors. The teacher will write the colors red, blue, yellow, pink, and black in a list on the board. The teacher will name a color and ask those students who like that color to raise their hands. The teacher will instruct students to raise their hands only once. The teacher will put tally marks to show how many students picked a certain color.

RED	**IIII**
BLUE	**III**
YELLOW	**II**
PINK	**III**
BLACK	**I**

-The teacher will then draw a bar graph on the board and allow students to come to the board and complete it using the information from the class.

Our Class' Favorite Colors

5					
4					
3					
2					
1					
	Red	Blue	Yellow	Pink	Black

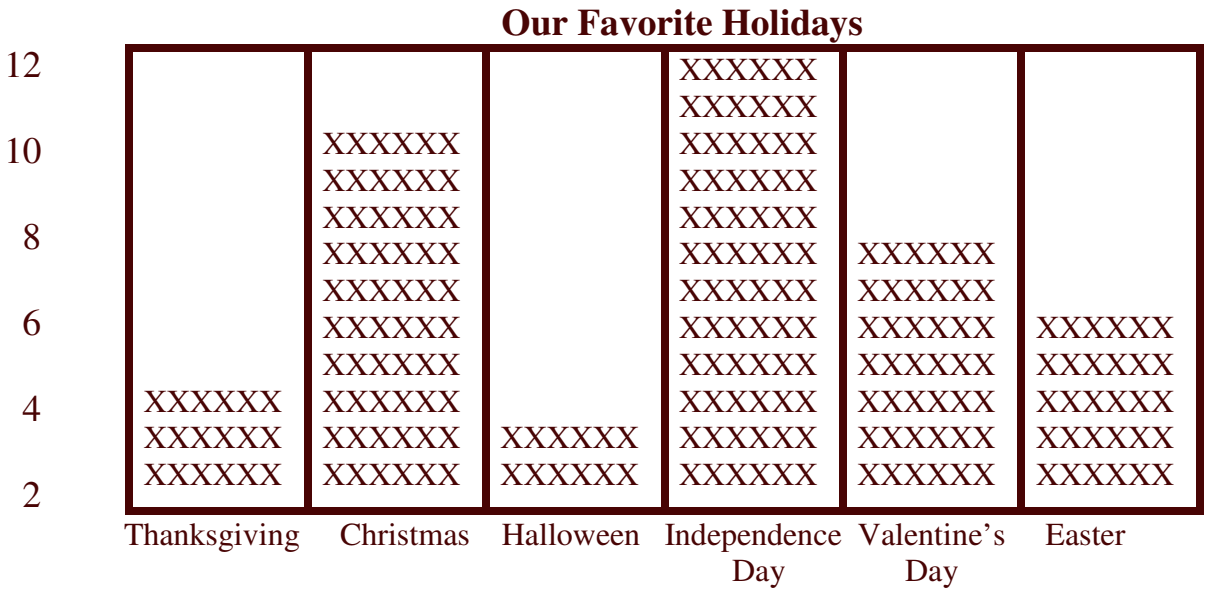
-Using the example the teacher will ask students questions about the graph. The teacher will ask the following questions:

1. What is the title of the graph?
2. Which color has the most votes?
3. Which color has the least votes?
4. How many people voted for red?

-After answering the questions about the graph the teacher will then tell students that today we will be using information or data provided to complete a bar graph in groups.

-The teacher will divide students into groups of four. Each group will be given a large poster with the lines already on it, markers, glue, a title, numbers to use for the scale, and labels. Students will be instructed to glue on the title, scale, and labels in the correct spaces on the graph. Students will then work cooperatively using the marker(s) to decide how and where to fill in the graph. While students are working the teacher will walk around the room and observe each group, helping when needed.

-After each group completes their graph, the teacher will give each group a sheet of chart paper. Students will write five questions about their graph. The teacher will put numbers in a bag and allow someone from each group to pull. Each group will rotate to the group's number they pulled and answer the questions about their graph. The teacher will use the group projects as an assessment.



-After completing the group projects, students will be given a completed bar graph with corresponding questions and will work independently using the graph to answer the questions. This activity will be taken up and graded as well.

3 Materials and Resources

Posters
Glue
Title Cards
Scale numbers
Labels
Chart Paper
Markers
Whiteboard

Resources

Bright, George W.; Frierson, Dargan Jr.; Tarr, James E.; Thomas, Cynthia. Navigating through Probability in Grades 6-8. Reston, VA; The National Council of Teachers of Mathematics, Inc., 2003. pp 29-40.

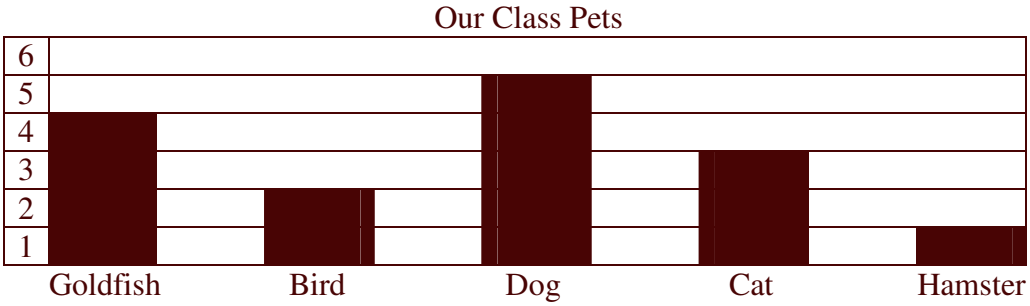
Grober, Keith. *Mississippi MCT2 Coach Gold Edition Grade 4:* New York: Triumph Learning 2008, Pages 198-201.

4 Assessment

Students will be assessed using teacher made test.
Monitoring and Observing Group work
Graphs made in groups

Name_____ Date_____

Directions: Use the bar graph to answer the questions that follow.



1. Which pet did most students have?
   A. dog
   B. cat
   C. hamster

2. Which pet did fewer students have?
   A. goldfish
   B. bird
   C. dog

3. How many students have dogs?
   A. 3
   B. 4
   C. 5

4. How many more students have dogs than birds?
   A. 1
   B. 2
   C. 3

5. How many students have goldfish and dogs altogether?
   A. 9
   B. 1
   C. 3

Answer Key

1. A
2. B
3. C
4. C
5. A