**Lesson Plan**
“Data Representation”

**Teacher**
Stout

**Subject**
Math

**Grade**
1

**Objectives:**
Students will be able to represent the data through using counts and bars.

**Standards [GLEs]:**
S&P-1 Construct and use real graphs, pictographs, and bar graphs.
S&P-2 Collect and record data.

**Assessment Plan:**
Students will be assessed through their use of manipulative squares to display the data and the ability to graph on their own in their homework assignment.

**Anticipatory Set:**
Kids get to get up and moving as they create life size bar graphs. Then they get to use manipulative squares to display the data as well.

**Teaching:**

**Input:**

Explain the terms – bar graph, count, column, axis, vertical, horizontal, question, and answer options.

For vertical and horizontal explanations have them use their own arms to explain this.

Check for understanding:

Ask them to tell you what the different parts of the graph on the board are now that you have gone over the definitions.

**Modeling:**

Ask the group to stand up. Write boy and girl on the board so they can line up. Have all the boys line up in one line and the girls next to them in the other. Use the board to draw a representation of these with square indicating the individual within the bar.

**Guided Practice:**

Next let kids pick from the following list of possible questions. [the number will be based on the time you have] --- you may have the class choose their options of give them to them
based on time as well. ***make sure to have one extra question to put on the homework sheet if you are doing that portion of the lesson

What is your favorite sport?
Possible options: Football, Basketball, Soccer, Running

What is your favorite Pet?
Possible options: Dog, Cat, Fish, Lizard

What is your favorite school subject?
Possible options: Math, Science, Reading, Writing

What is your favorite Color?
Possible options: Blue, Red, pink, Green

What is your favorite Shape?
Possible options: Circle, Square, Triangle, Rectangle

What is your favorite Fruit?
Possible options: Banana, Orange, Apple, Pear

What is your favorite vegetable?
Possible options: Carrot, Broccoli, Potato, Beans

What is your favorite season?
Possible options: Fall, Winter, Spring, Summer

Once they have chosen the questions have them stand up and model the life size graph. Write the column names on the board and have the kids line up in front of that column. Count each number of people in the columns related to the answers. Tally them on the board.

Independent Practice:

Have students sit on the floor or at desk and instruct them that they will now be displaying the numbers on their own graphs, like we did with gender, point to the board where that is still up.
Choose one question and help them figure out the counts from the tally’s. Draw a graph on the board that is blank, put the four categories on the bottom with numbers 1-4 next to the answer so it is associated with their graph paper.

Hand out the 1-inch graph paper and the manipulative squares.

Have them place one square per count for each category. Walk around the room and help as they place their squares into the separate columns.

When everyone is done, go back up to the board and do follow up with them on how it should look.

Repeat for the questions the class chose to analyze.***save one for the homework

Closure:

Great job! Brief review of what they did today. ***Explain the homework.

***Independent Practice [Homework]:

Homework attached to the lesson for them to take home and complete on their own on a piece of supplied graph paper.

**Time Line**

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<td>Input</td>
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<td>Independent Practice</td>
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<td>Closure</td>
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**Materials:**

Board and markers

Manipulative square blocks

Create One –Inch Square Graphing paper with Axis and columns that have squares indicated for the kids to place their manipulative. Put 1-4 as the column titles.

Homework sheet with attached graph paper