

Fun Park Lesson Plan #3 – Graphing Data on a Bar Graph (Outdoor Alternative)

Name of teacher designing the lesson: Geri Belt/Rose Rivezzi

Full day field trip to the Fun Park

Lesson # 3) Graphing data on a bar graph, fractional part, median, mode, and mean

SKILL

Collect and record data

Tallying numbers

Fractional part

Mean and median

CONCEPTS

Students will record mini-golf scores on a chart

Students will use calculators to figure mean

Students will determine fractional part of holes-in-one

Students will set up a bar graph accurately recording data

Brief outline of the lesson:

1. The students will play 18 holes of mini-golf
2. Partners will record scores
3. Partners will answer questions based on their data
4. Students will make a bar graph of scores

Detailed step-by step outline of the day:

One chaperone can be stationed here. Before students begin, he or she should go over the worksheet and expectations. Students will play golf and record scores. Pairs should begin at different holes. Once data is collected, students answer questions and make their bar graphs reflecting data. Students can work at the tables there.

Resources Required:

1. Pencils
2. Colored pencils to show different colored bars
3. Worksheet (see below)
4. golf club and balls provided by park

Preparation Required:

- Reproduce copies of worksheet
- Arrange for adult chaperones to assist students.
- Classroom lesson on bar graphs, mean, median, mode

Assessment: I simply used a $\sqrt{+}$, $\sqrt{}$, $\sqrt{-}$ scoring depending on the completeness of the task or level of understanding.

Student Worksheet – Fun Park Lesson #3 Graphing Data with a Bar Graph

Station #1 Mini Golf

- The most important thing to do in your time here is to record your scores for 18 holes of golf on your sheet. You and your partner are to play each hole together (you will be told which hole to start on....wait for those ahead of you to finish).

- When you are done, go to one of the tables in the assigned area and begin your task.

Needed: clipboard, pencil, calculator

TASK:

1) Holes-in-one were what **fractional part** of your scores? _____

2) What was your **mean (average)** score? To find this, add up all the scores and then divide by 18. Round off your answer to the nearest whole number.

Total strokes taken _____

Average - total divided by 18 (rounded) _____

3) What was your **median** score? To find this, write all your 18 scores in order from least to greatest and circle the ninth and tenth scores. Add these two scores and divide by 2 to get your median score.

Show work here:

4) What was your **mode** score? Which score did you get most often? Look at the box above. Which score did you write the most # of times? _____

5) Make a bar graph of your results. Follow the criteria given on the graph page.

Bar Graph Criteria:

Give your graph a title.

Decide on the interval you will use (will you count by 1's, 2's, 3etc.)

Label each axis using double labels (what do the numbers mean that are on each axis?)

Correctly graph your data.