



# Percentages - Fractions

## Algebra/Geometry Institute Summer 2005

### Lesson Plan 2: Skittle Around with Fraction and Percentages

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**Grade Level:** 5th

Teaching objective(s):

Models and shows relationships among fractions and percents.

Instructional Activities:

- Teacher will prepare students for the activity by discussing fractions and percents. Given below are questions that the teacher will ask the students:
  1. What is a fraction? (Possible explanations should include part of a whole, etc).
  2. How is a fraction written?
  3. What is a percent? Teacher will explain that percent is so many out of 100.
  4. How are fractions and percents related, and how can fractions be used to calculate percents?
- Teacher will guide students through the written directions, by explaining the variety of activities to complete.
- Teacher will model the work required to complete the assignment, such as computing percents. Ask students if they have questions before they start.
- Teacher will divide students into cooperative learning groups. Have students pair up, so that each student has a partner.
- Have students sort the Skittles according to color and calculate the number of each color of Skittles recording to the data in columns 1 and 2 on the chart, according to the corresponding space for each color.  
**(Attachment 1)**

- Have students compute fractions for each color of Skittles in their bags. Record data in column 4 on chart. **(See attachment # 1).**
- Have the students share their group's information. Record the information on the chalkboard or transparency so that all students can see it, and have students record this information on data sheet.
- Based on knowing the number of one color from one pack of Skittles, have students make predictions or estimates related to the fractions/percents for the other colors.
- Use the data students computed and compare the results of individual colors by using greater than, less than or equal to problems.
- Have students create their own problems using the data collected from their Skittles information and share those problems with the class.
- Have students discuss class data and results.

### Materials and Resources:

Log chart

Skittles Candy

Calculators

Pencils

Silver Burdett Ginn Mathematics: The Path to Math Success. Copyright 2001.

### Assessment:

- Teacher will observe students as they work. Teacher will check to make sure students are following the guidelines correctly.
- Teacher will review the math concepts practiced in class on fractions and percents. Ask students to discuss the relationship between fractions and percents.
- Have a group discussion about the overall activity, which tasks were difficult, which concepts were unclear, what areas need to be reviewed so that students have a better understanding.
- Students will collect data and record it on the Skittles data sheet. Have students use data and concepts written from the activity to create their own Skittle's problem. Have each group share results of data gathered with class and explain problems. Through their explanation students should

Name \_\_\_\_\_ Date \_\_\_\_\_  
group's sheet.

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## Skittles Data Sheet

Color of Skittles	Amount for each color	Percentage of each color	Fractional parts for each color
Total # of Skittles =			

### Discussion Questions:

1. What kind of answers did you compute? \_\_\_\_\_  
\_\_\_\_\_
2. How do you think your results will compare to the other students?  
\_\_\_\_\_  
\_\_\_\_\_
3. Given the result gathered for one color of Skittles, is it possible to make estimates or predictions pertaining to the other colors? \_\_\_\_\_  
\_\_\_\_\_  
  
State reason for your answer: \_\_\_\_\_  
\_\_\_\_\_
4. What kind of results did you expect? \_\_\_\_\_  
\_\_\_\_\_
5. Why do you think you got those results? \_\_\_\_\_

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