

2011 Summer Math Institute
“Using M&Ms to Teach Percents and Circle Graphs”

I. Goal/Objective

The goal of this staff development is to teach/show math teachers the effectiveness of using M&Ms as a manipulative when teaching mathematics.

II. Math Concepts

- a. Finding percentages. (MSMF Objective 5a. For Grade 7.)
- b. Using percentages to construct a circle graph. (MSMF Objective 5c. For Grade 7.)

III. Materials

- a. Individual packages of M&Ms for each participant
- b. M&M sorting sheet
- c. Plastic sandwich bags
- d. Compass
- e. Straight edge
- f. Protractor
- g. Calculator
- h. Crayons
- i. Pencil
- j. Paper for computations and circle graph

IV. Management

- a. Things to prepare ahead of time.
 1. Check with principal to set up a date for staff development.
 2. Purchase enough packages of M&Ms for the participants.
 3. Gather enough of the other materials listed above for the participants.
- b. Participant groupings.
 1. Set up 3 tables numbered 1, 2, and 3.
 2. Place three number tiles of each number (1, 2, and 3) in a bucket.
 3. As participants enter, ask them to choose a number tile from the bucket without looking. The number tile will determine what table to sit at.
- c. Time Frame.
 1. The approximate time for the entire activity is 45-60 minutes.

V. Procedure

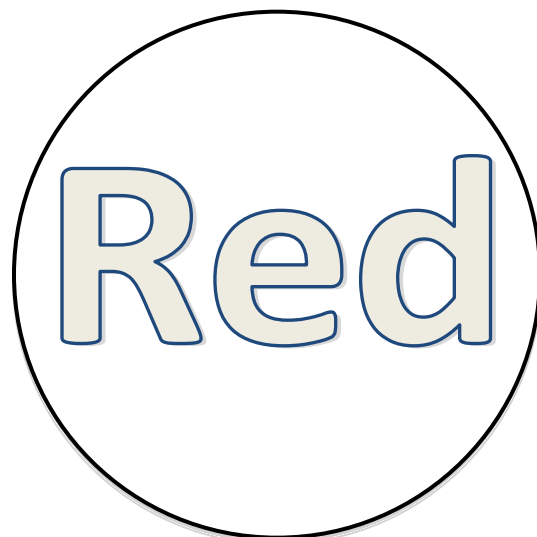
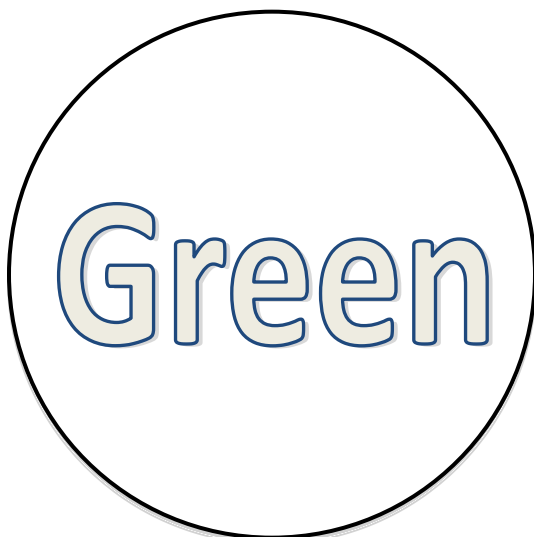
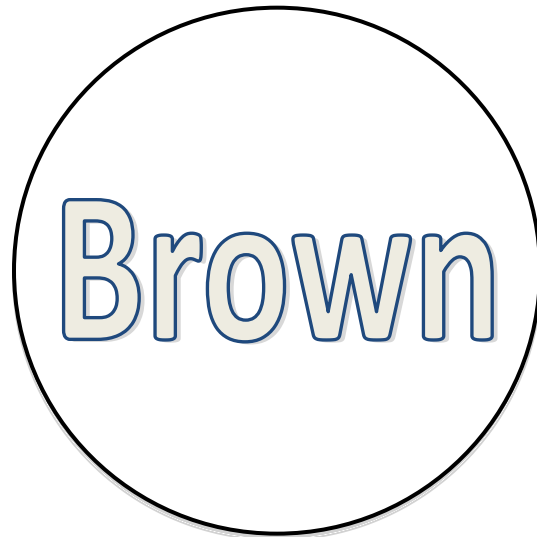
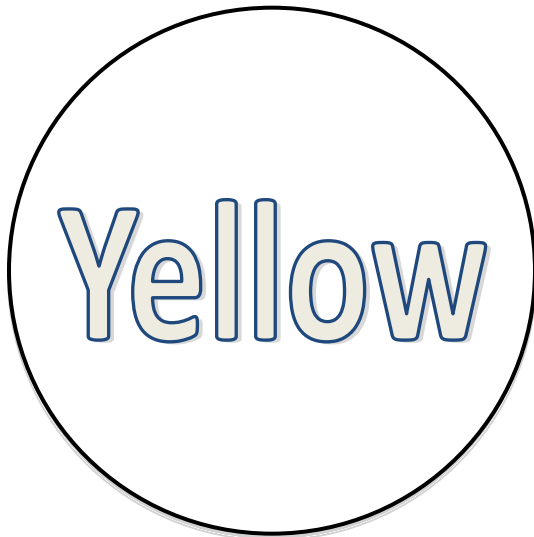
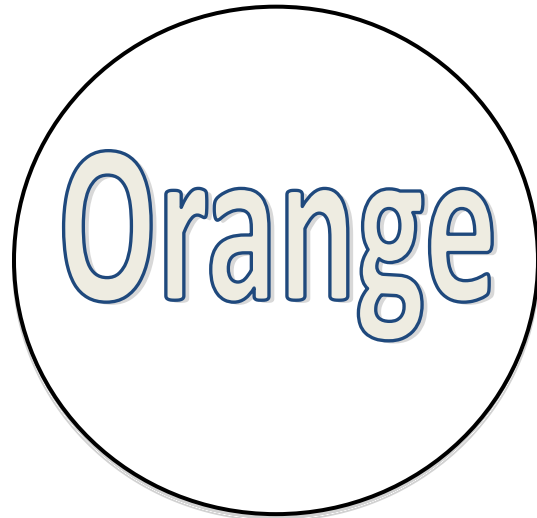
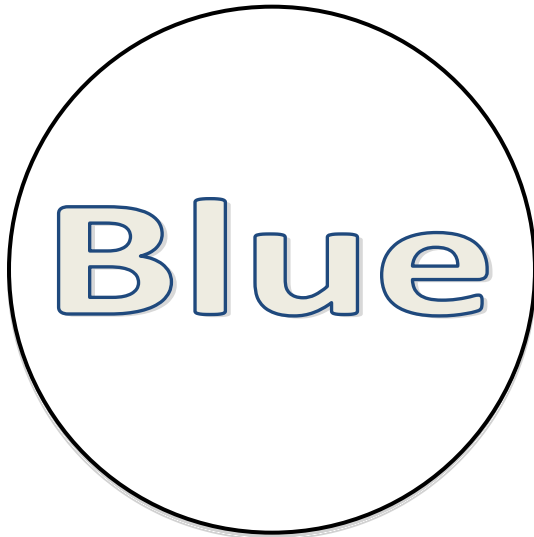
- a. Pass out the M&Ms and the sorting sheet.
- b. Have the participants place their M&Ms in the correct circles by color.
- c. Have the participants record the number of each color.
- d. Have the participants find the total number of M&Ms in their package.
- e. Have the participants prepare the percentages of each color by dividing the total number of each color by the total number of the contents of the bag. Calculate the number of degrees this would represent. Multiply the percent of each color by 360 degrees.
- f. Use a protractor to measure the number of degrees this represents. Divide the circle accordingly. Color the circle using the same color as the candy being represented in the graph.

- g. Have the participants share their data with the class. Ask the participants if any of their data matches; if so what? Ask them to make predictions about how many M&Ms will be in a bag. Ask them to make a prediction of which color or colors will have the greatest percentage in a bag.**

VI. Closure

- a. Ask the teachers if they enjoyed working with the M&Ms.**
- b. Ask the teachers if they think their students would enjoy using the M&Ms.**
- c. Ask the teachers if they would use the M&Ms to teach in their classrooms.**
- d. Ask the teacher if they could use the M&Ms to teach other concepts in math.**

Attachment 1
M&M
Sorting Sheet



Attachment 2
M&M Circle Graph

