

NCLB Summer Math Institute 2011
Lesson Plan
Statistics

Topics:

1. Statistics
2. Mean, Median, and Mode
3. Bar Graphs

Grade Level:

5th to 8th Grade

Objectives:

- a. The students will sort, tally, and analyze the contents of a bag of M&Ms. (MSMF Objective 5 for grades 5-8.)
- b. The students will use their results to find mean, median, and mode. (MSMF Objective 5a. for grade 5.)
- c. The students will use their results to construct a bar graph. (MSMF Objective 5a. for grade 6.)
- d. The students will combine the class results to find mean, median, and mode for the entire class. (MSMF Objective 5b. for grade 5.)

Procedures:

- a. Have a student pass out the bags of M&Ms to the students. Tell the students not to open their bags or eat any of their M&Ms until the teacher gives permission.
- b. Have several students help hand out the worksheets (Attachments 1-5) that each student will need.
- c. Have a student pass out a box of crayons or colored pencils to each student.
- d. Tell the students to open their bag of M&Ms and sort the colors on the "Sorting" sheet (Attachment 1.)
- e. Tell the students to construct a bar graph of his or her data (Attachment 2.)
- f. Tell each student to record his or her data on the student M&M tally sheet (Attachment 3).
- g. Call each student up to record his or her data on the overhead class data sheet (Attachment 4.)
- h. Have each student find the mean, median, and mode of the class data and record them on his or her worksheet (Attachment 5.)

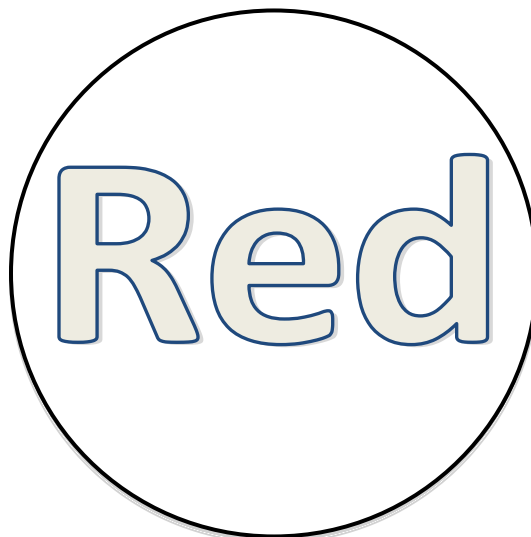
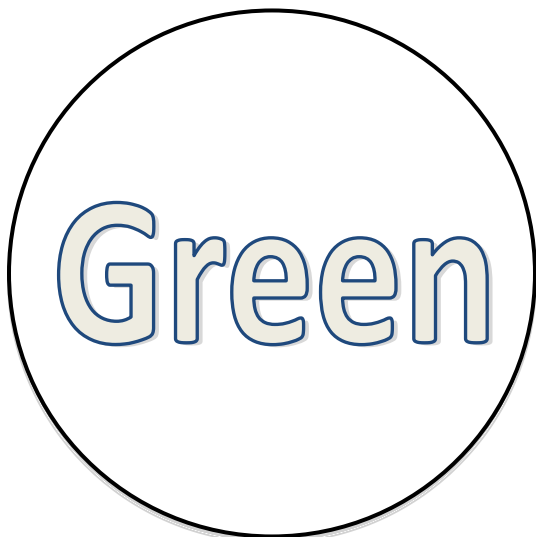
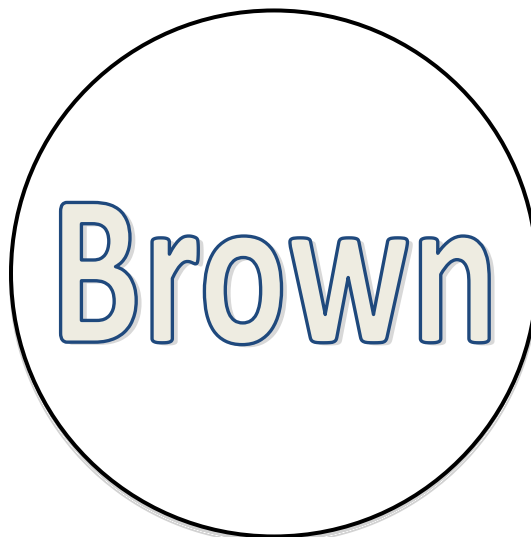
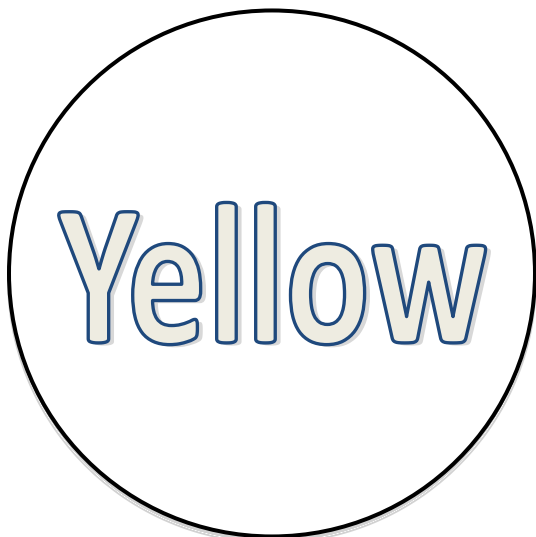
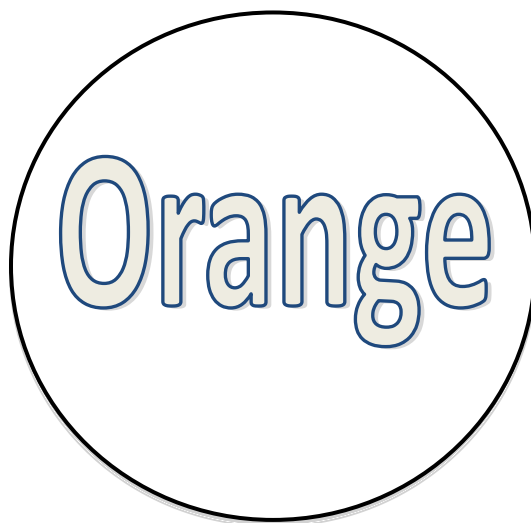
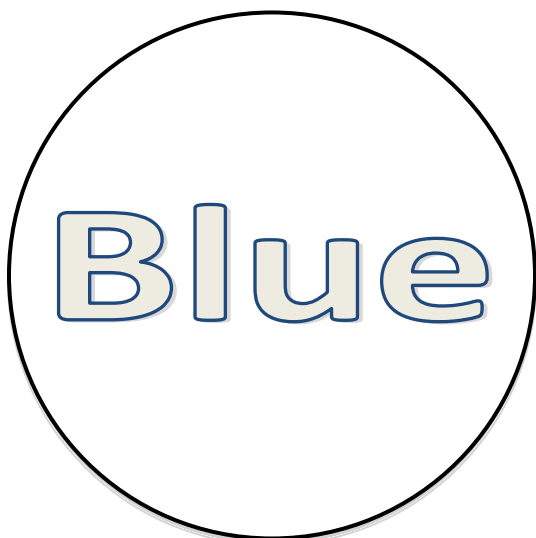
Materials Needed:

- a. One bag of M&Ms (peanuts or plain), per student.
- b. One small plastic sandwich bag per student.
- c. One M&M Sorting sheet per student. (Attachment 1, Teacher Created)
- d. One M&M Tally sheet per student. (Attachment 2, Teacher Created)
- e. One M&M Graph sheet per student. (Attachment 3, Teacher Created)
- f. One overhead M&M data collection sheet for the class results. (Attachment 4, Teacher Created)
- g. One M&M question sheet per student. (Attachment 5, Teacher Created)
- h. Crayons or Color pencils.
- i. One calculator per student.

Assessment:

- a. Have the class compare and discuss their answers.
- b. Take up all the students' graphs and check to see if they constructed them correctly.
- c. Take up attachment 5 and keep for later use.

Attachment 1
M&M
Sorting Sheet



Attachment 5
M&M Data Analysis Worksheet

1) Find the mean, median, and mode for each color from the class data sheet.

Color	Mean	Median	Mode
Orange			
Red			
Brown			
Blue			
Green			
Yellow			

2) Find the mean for the total number of M&Ms for the entire class.

3) Find the mode for your individual bag of M&Ms.

4) Using the given data predict how many M&Ms you would expect to be in your next bag of M&Ms and which color would you see most.

5) YOU MAY NOW EAT YOUR M&Ms, ENJOY.