Activity 2: What's in the Bag?

PURPOSE Use percents to compare the composition of a sample and the composition of the population.

MATERIALS Data from Activity 1 on the number of each color of *m&m's* Plain Chocolate Candies in a one-pound bag

GROUPING Work individually.

GETTING STARTED

DID YOU KNOW?

According to Mars, Inc., the manufacturers of *m&m's* Plain Chocolate Candies, there are 30% brown, 20% yellow, 20% red, 10% orange, 10% blue, and 10% green candies in each bag.

1. Record the number of each color of *m&m's* in the one-pound bag from Activity 1 in the table below. Determine the total number of *m&m's* and the percent of each color.

Color	Brown	Green	Orange	Red	Blue	Yellow	Total
Number							
Percent							

2. Use the data in the table to support or dispute the claim made by the manufacturer. How could the company explain any discrepancies between its claim and the percents you found?

EXTENSIONS Investigate the effect of using different sampling techniques by repeating the experiment in Activity 1 using a one-pound bag of individually wrapped FUN SIZE packs of *m&m's* and giving each student a FUN SIZE pack for his or her individual sample.* Answer the following questions.

1. Are the percents of the different colors in your FUN SIZE pack the same as the percents you found in your individual sample in Activity 1?
2. In which individual sample (your scoop of *m&m's* or the FUN SIZE pack) are the percents of the colors closest to the percents given by the manufacturer?
3. Are the percents of the colors in the one-pound bag of FUN SIZE packs the same as the percents you found in the one-pound bag of *m&m's* in Activity 1? Are they the same as the percents given by the manufacturer?

*FUN SIZE® is a registered trademark of Mars, Inc.