

# Get Halloween Math Practice with Candy Calories

by Cindy Donaldson

Have you ever wondered which [Halloween](#) candy has the most calories per gram? Here's a way for your student to figure it out. By tracking nutritional information from candy wrappers, your student can use statistics to find which treats offer the fewest tricks. Here's a lesson that will help him review how to make some important types of graphs, and help him remember which kind is best to use with different types of data.



## What You Need:

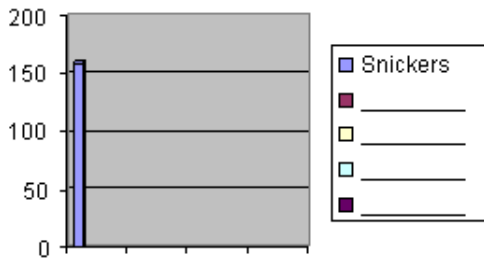
- The large bags that your Halloween miniature candy comes in. These bags list the nutritional data for the candy.
- A copy of the chart below.
- Paper and pencils.

## What You Do:

1. Gather the large bags that contain the Halloween candy you distribute.
2. Copy the following chart. The first line is filled in as an example. Have your student choose at least 4 other candies to fill in the rest.

Candy name	Calories per serving	Weight in grams
Snickers	34	160

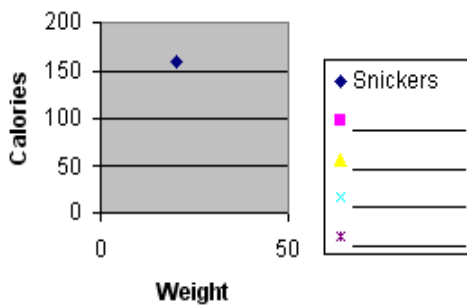
3. Make a Bar Graph showing the Calorie count for each type of candy. The left side should represent the number of calories, with a a different color bar for each type of candy, like this:



*Analysis Question:* Which of your candies is the most caloric, based on a quick look at the graph?

4. We now have a short answer about which candy is the richest, but we can get more precise. Maybe the most caloric candy is that way because there's more of it. If we plot the candy by weight vs. calories, we'll get a clearer picture of which candy is the densest.

5. Make a scatter-plot graph. The bottom of the graph (x-axis) will represent the weight and the left side (y-axis) will represent the number of calories. Plot each candy as a colored dot based on a pair of numbers: (weight, calories). For instance, a Snickers bar would go at point (34, 160)



*Analysis Questions:* Now, you can think about more complicated ideas.

- Look at the upper left-hand corner. Those are candies that weigh little but have a lot of calories.
- Now look at the lower right-hand corner. Those are candies that weigh a lot but have few calories.
- Look at the upper right-hand corner. What would the properties be of these candies?
- How about the lower-left hand corner?
- Which would you choose for a snack? Why?
- Bar graphs are good when you only have one variable per item (like calories per candy bar). Scatter-plot graphs are great for comparing data when there are two variables (like calories *and* weight). Can you think of another example of a data set that would make a better scatter-plot graph than a bar graph? (Examples: Comparing homes by price *and* square footage, Comparing baseball teams by payroll *and* winning percentage, Comparing car weights *and* gas mileage.)

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