

# Graphing Skittles



## **Part I: Comparing Colors in a Skittles Bag**

**Question:** What is in a fun size bag of Skittles?

**Materials:**

- 1 fun size package of Skittles
- Protractor
- Calculator
- Timer
- Colored pencils
- Compass
- Ruler
- A Good Attitude

**Prediction:** (Do this before you open the bag.) Write it down in your notebook:

*I predict that there are \_\_\_\_\_ Skittles in the bag.*

**Procedures:** You will work with the people at your table (1 bag of Skittles per table).

1. Open the bag of Skittles.
2. Lay out all of the Skittles onto the paper towel.
3. Categorize the Skittles into matching colors.
4. Count the Skittles and record your data into a data table.
5. Complete enter the data into your data table then move on to Part II (*Tasting the Rainbow*) **before** making your three graphs.

**Data Table I:**

Skittle Color	Number in pack	% of total Skittles	Angle of Portion*
<b>Total # of Skittles</b>		<b>100%</b>	<b>360°</b>

**Useful Formulas:**                      % of total Skittles =  $\frac{\text{\# of specific color}}{\text{Total \# of Skittles}} \times 100$

\*To find pie graph angles **multiple** the % of total Skittles by **3.6**  
(why do you multiple by 3.6 to get the angles?)

**Evaluate and Display Results:**

1. In your notebook construct a **pie graph** of your data. Include the following: a key, the % of each color (in each slice), and make sure it is neat and in **FULL COLOR**.
2. In your notebook construct a **bar graph** of your data. Include the following: a key, the % of each color (above the bar), and make sure it is neat and in **FULL COLOR**.

## Part II: **TASTE THE RAINBOW** (Rate of Consumption)

**Question:** How long does it take to consume the entire fun size bag of Skittles. Start this after you complete the data table for Part I or after you finish the graphs.

### RULES FOR TASTING THE RAINBOW...

- Each person can only eat **one Skittle at a time.**
- You may not put another Skittle in your mouth until you have **completely** finished the previous Skittle **and** the person **before you** has finished their Skittle.
- Every **10 to 30 seconds** (you pick the time interval) record the number of Skittles you have **left on the table.** The time interval you select for measuring will depend on if you are a fast or slow consumer of candy (make sure you select a consistent interval).

**Prediction:** In your notebook write down the following (before you start eating):

*It will take my group \_\_\_\_\_ seconds to consume the entire bag of fun size Skittles.*

**Data Collection:** For your selected time interval record the number of Skittles that are left on the table.

**Data Table II**

# of Skittles left on the table	Time (sec.)
(This should be the original number of Skittles in your bag)	0

**Evaluate and Display Results for *TASTE THE RAINBOW*:**



1. In your notebook construct a **line graph** of your data. Make sure you use the **SULTAN** method to make your graph.