Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title: Skittles Probability / Odds

Goals/ Objectives:

1. Clarify the difference between probability and odds
2. Make predictions based on our data
3. Calculate different probability fractions
4. Calculate different ratios in relation to odds
5. Have fun!

Materials:

* Skittles Probability / Odds Worksheet
* A whole lot of Skittles

Activity Steps:

1. Open Skittles and calculate total number of Skittles
2. Sort Skittles by color
3. Calculate the separate totals for each color Skittle
4. Calculate the probability of getting each color
5. Calculate the odds of getting each color
6. Answer the questions related to probability and odds on the worksheet attached

Worksheet Modified from: Ms. Milleson’s 7th Grade Blog

Citation: Milleson, K. (2012). Probability and Odds - Skittles Activity. *Ms. Milleson's 7th Grade Blog*. Retrieved from http://msmilleson32.blogspot.com/2012/03/probability-and-odds-skittles-activity.html

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Skittles Probability / Odds

***Remember!***

**Probability** 🡪 Chances it will happen / Total # of chances

**Odds** 🡪 Chances for to Chances Against

 For : Against

Total Number of Skittles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Color | # of Skittles | Probability Fraction | Simplified | Odds | Simplified Odds |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**Directions**: Answer all questions using the data collected.

Find the probability of each situation.

1. P(Blue) 2.) P(Orange and Purple)

 3.) P(Green and Red) 4.) P(not Yellow)

Find the odds of each situation.

 5.) Red and Yellow 6.) Purple and Green

 7.) Blue, Orange, and Red 8.) Orange and Blue

9.) Is this a dependent or independent event?

10.) Which color of Skittles, if any, do you think is the most common? Explain your reasoning.

11.) You have one of each color Skittle, if you eat them 1 at a time without looking before you pick, what are the odds that you save the green one for last?

12.) Do you think it is possible to draw a red and then draw red the next three times? Why or why not? Explain.