

Scientific Method – M&M's Activity

Activity and Graphing Experiment

✓ A fun activity to introduce your students to the Scientific Method

✓ The lab is available in Word and PDF format

Scientific Method – M&M's Activity – Graphing Experiment

We all have our favorite color – Red, Orange, Blue, Green, Yellow, and Dark Brown! But how good are the manufacturers at equally dividing them into each bag? Your job is to determine which colors are the most common within a pack of M&M's.

Materials:

- 5 packs of M&M's – 1 pack per group
- Ruler, pencil, scale, and calculator

Hypothesis:
Create a hypothesis on whether you think one color will be more common.

Procedure:

- 1) Create a hypothesis.
- 2) Weigh your M&M's without the bag.
- 3) Within your group, empty the M&M's onto your table.
- 4) Divide the colors into 6 piles.
- 5) Count the number of each color and include your results in your results table below.
- 6) Obtain the results from the other four groups and include them in your results table.
- 7) Graph the data from your table on the provided graph paper.
- 8) Answer the Post-Lab Questions.

Results Table:

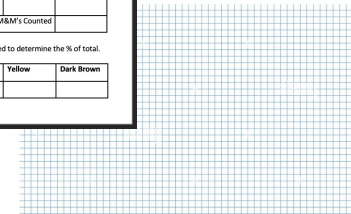
M&M Color	Number of M&M's in each bag					Total
	Group 1	Group 2	Group 3	Group 4	Group 5	
Red						
Orange						
Blue						
Green						
Yellow						
Dark Brown						
Total M&M's Counted						

Divide the total number of each color from all bags by the total M&M's counted to determine the % of total.

M&M Color	Red	Orange	Blue	Green	Yellow	Dark Brown
% Of Total						



in the area below. Don't forget your titles, units, and scale.



Post-Lab Questions:

- 1) Was your hypothesis correct? Which color was most common in the five bags?
- 2) Regarding question 1, rank the colors by % of total.
- 3) Why were you asked to create a bar graph instead of line graph?
- 4) If you were to do this experiment again, what would you do differently?
- 5) At the start you weighed the M&M's. Was the result the same as on the packaging? If not, what was the % difference? (Mass of M&M's – Labeled Mass)/Labeled Mass X 100%



TWF

Students Will Learn

- ✓ How to collect data
- ✓ How to create a hypothesis
- ✓ How to record and represent results using tables and graphs
- ✓ How to interpret results and answer questions based on experimental data



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