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# IntroActivity2 – Data Exploration

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## “The Great m&m Experiment”

Adapted from Michelle Hipke



**Question: What percentage of milk chocolate m&m candies are orange?**

The purpose of this activity is to introduce you to the basic concepts we will be encountering in AP Statistics. Your goal is to answer the question above using only a “sample” of m&m candies. You must justify your conclusion by organizing, plotting, and referencing data collected by the entire class.

### I. Collecting the Data:

Scoop out a sample of M&M candies. Count the total number of M&Ms in your sample. You will need exactly 25 M&Ms, so if you need more, randomly choose a few more to add to your sample. If you have too many, you must randomly choose M&Ms to discard. *DO THIS WITH YOUR EYES CLOSED! NO PEEKING!*

Calculate the percentage of *orange* M&Ms in your sample: \_\_\_\_\_

Record the class data using the following chart:


### II. Organizing the Data: Organize the data in a meaningful way.

Title: \_\_\_\_\_


Can you summarize the class data using a basic numeric measure?

### III. Displaying the Data: Display the data using a dot plot.



Title: \_\_\_\_\_

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4%   8%   12%   16%   20%   24%   28%   32%   36%   40%   44%   48%

### IV. Analyzing the Data:

- Describe some general features of the data.
  
- What would you consider a “normal” or “typical” percentage of orange M&Ms? Why?
  
- Does our data reveal the true percentage of orange M&Ms? If so, what is the true percentage? If not, what DOES it reveal about the true percentage?

 **Conclusion? How confident are you in your conclusion? Why?**