

Twizzler® Lab

Driving Question:

What is the relationship between the length and mass of a twizzler???



Review relationships between variables here:

http://www.edinformatics.com/math_science/mathematical-relationships/types-of-mathematical-relationships.htm

Review independent and dependent variables here:

<https://www.thoughtco.com/independent-and-dependent-variables-differences-606115>

Decide as a group what you need to do to measure data to solve the driving question above.

Think about the following things:

- How will you write a simple, reproducible set of instructions for finding the mass, length relationship of a twizzler. (How will you collect data?)
- How will you insure your data is reliable?
- How will you organize your data?
- How will you communicate your data for others to quickly and easily see your findings?
- What variable is the independent variable? The dependent variable?

Discuss each as a group and if you are unsure of any of the answers to the questions above, ask your teacher for help.

Gather your materials and measure your data. Be sure to measure using correct sig figs. Perform your experiment.

When you have finished organize your data into a chart paper presentation.

Your presentation should include:

- The driving question.
- Data.
- Graph(s).
- A conclusion statement with data cited from your experiment.

Twizzler Lab Reflection Questions:

What would your graph look like if the candy was the same length but made of steel?

What would your graph look like if the candy was the same length but made of styrofoam?

What information can we gather from the slope our graphs?

If you were to cut all the pieces of candy to the same length what would your graph look like?

If you switched the independent and dependent variables on your graph what would it look like?

Evaluate the data, graphs and conclusions from the other groups in the room. What differences do you note?

Do you see a group or groups that have more reliable results? What makes their results more reliable?