Name:

**Bungee Candy**



**Goal:** Students will collect data and model their finding in a graph and compare results with others in the class.

**Objectives:**

* Given supplies, the students will find the distance of the cup from the floor with a certain amount of skittles in the cup
* The students will then graph their findings on a scatter plot.
* Students will apply their knowledge of collecting data and interpreting data information.

**Vocabulary:**

* Positive Correlation: If the x-coordinates and the y-coordinates both increase
* Negative Correlation: If the x-coordinates and the y-coordinates have one increasing and one decreasing
* No Correlation: if there seems to be no pattern, and the points looked scattered.
* Trend line: A line on a graph showing the general direction that a group of points seem to be heading

**Materials:**

-Slinky - Two yard sticks

-Two paper clips - A paper cup

-Skittles in a bag - Worksheets

**Set Up:**

Give each group a bag of skittles.

Set up classroom with meter sticks in place for the students

Have the cups attached with the Slinkys.

Procedure:

**Step 1:** Students place one Skittle into the cup. Once skittles is placed, wait for the slinky to stop moving then measure the distance from the floor with the other yard stick.

**Step 2:** Students will collect data and write down their data on a result sheet. Students will keep adding Skittles one at a time until the cup touches the floor.

**Step 3:** Students will then make a table of their results that they have collected.

**Step 4:**  Students will then make a scatter plot with the points they have collected. (X axis is number of Skittles and Y axis is inches from the floor.)

**Step 5:** Using a straight edge students will be able to see a line of regression.

**Step 6:** Using the Scatter plot graph, have the students analyze their data and write down what they have noticed will doing this experiment. (What are they noticing?)

**Other Questions:**

1. Prepare a scatter plot for the following. Determine from your graph whether there is a correlation between the numbers of hours spent in a mall and the numbers of dollars spent.
2. Show trend lines, Determine if it’s Positive, Negative or No Correlation.

**Connections**:

1. Where else would you use this application in the real world?

2. What are some factors that would affect this

experiment?

**Adaptions:**

*Calculus*

* <http://danielwalsh.tumblr.com/post/11566016253/explaining-an-astonishing-slinky>

*Physics*

* <http://slinky.org/>

**References:**

* <http://www.ehow.com/info_8416141_handson-secondary-math-activities.html>
* [www.lemars.k12.ia.us/webfiles/ccollins/Prealgebra/.../**Scatterplots**[1].ppt](http://www.lemars.k12.ia.us/webfiles/ccollins/Prealgebra/.../Scatterplots%5B1%5D.ppt)