Name _____
Clark
Science Period _____
Date _____

LAB/PROJ2

Due 8/8

Fix 8/12

Straw Wars

TSWBAT: explain what affects how things move.

Problem:
What effect does the size of a cotton ball and a ball of paper have on the distance that the two balls travel when blown on using a straw?

Prior Research: Use information the class discussed for "Tug of War."

Hypothesis (Make a prediction by answering the "Problem" question and using the research from WU6):
If the size of a ball is greater, then the distance moved will be _____, and the direction that the ball will travel will be _____. This will happen because _____

Materials:

- Plastic straw
- Paper straw cover
- Scissors
- Ruler
- Cotton ball
- Piece of construction paper (12 x 18")

Part 1:

Procedures:

1. Carefully remove a small piece of the straw cover at the end of the straw. Take off the straw cover and roll the paper cover into a small ball. This is your paper ball.
2. Carefully cut off the "bendy" part of the straw so that there is 14 centimeters (cm) of the straight part of the straw is left. Throw the "bendy" part of the straw away.

Constant Variable: Why should the length of the straw be kept the same?

_____

_____

3. Have two team members stand at the opposite sides of the cotton ball.
4. At the same time, each team member blows to see who can get the cotton ball ~~to get~~ to their opponents side of the table! (Real objective – both team mates should be blowing on the cotton ball the same amount so the ball should not move!)

Answer the following questions in complete sentences:

1. What did the cotton ball do before the blowing started and why?

_____

_____

2. What caused the cotton ball to move and why?

_____

_____

Part 2:

Procedures (Please round your numbers to the nearest cm.):

1. Line up the paper ball and the cotton ball on the edge of the piece of the construction paper and use the same amount of air to blow the paper ball and the cotton ball. Measure the distance that each ball has travelled.

Constant Variable: Why should the amount of air used be the same for each ball?

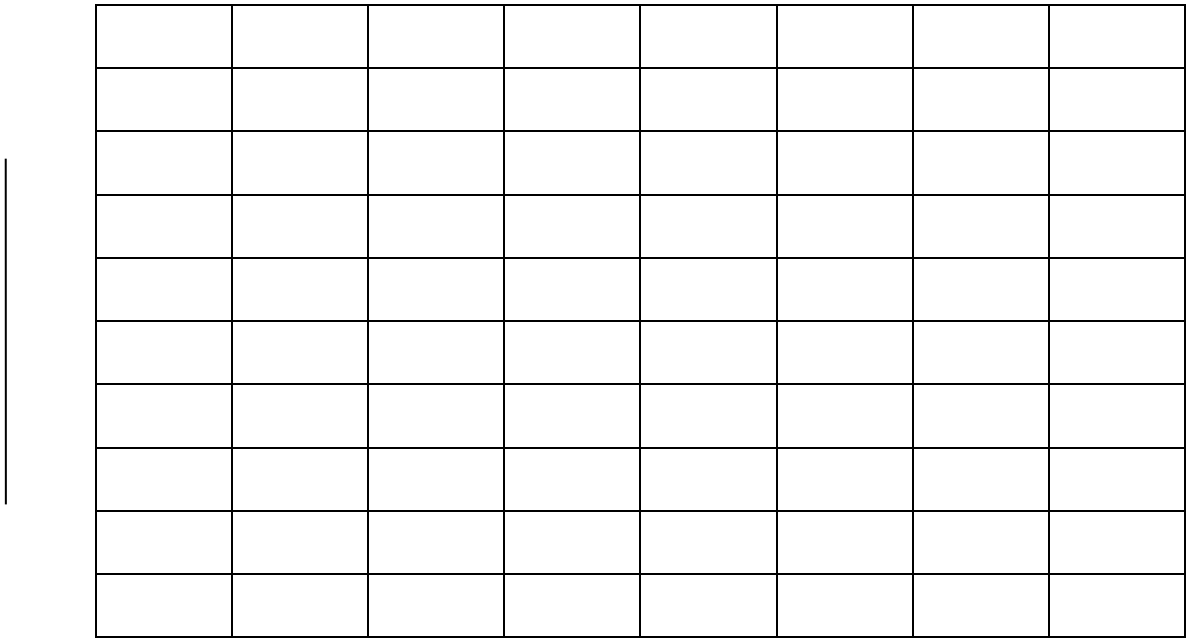
_____

_____

2. Create some type of comparison experiment (reread the PROBLEM) that allows data to be collected for the two balls. You do not have to fill every spot in the data table.

Data Table:

Graph: Create a bar graph for the data that you collected. Label the axes.



Look at your graph. *What is it telling you?*

Results (Fill in the blanks with the correct answers.):

The purpose for this experiment was to *(find out, determine, see, identify, etc.)* _____

_____

It was hypothesized that if (restate hypothesis) _____

_____

_____

The results of the experiment showed that when the size of the ball was increased, then the distance traveled in centimeters _____. For example, (*report the data)*

_____

_____

_____

Source of error: _____

Possible extensions (things to try in the future): _____

_____