The Quilted Quicker Picker Upper...

-Scientific Method Lab-

Problem/Background: Congratulations, you are the new Taco Bell manager. The kitchen staff has been complaining about the paper towel currently being used in the kitchen (brown paper towel). The procedures manual for the chain says you are allowed to choose from among four national brands (Bounty, Brawny, or Viva), and even then you must have validated evidence to support a change in the paper towels before a change can be made.

You are to design a lab to determine which paper towel brand is the most absorbent. You are responsible for coming up with your hypothesis, identifying the control, constants, and variables (independent and dependent). You also will need to figure out a procedure that will work.

Remember: You need a control (a basis by which to compare all other results to in order to determine which paper towel is in fact the best) and you will have many, many constants (things that remain the same in every single setup). Only one thing should change between each setup (the independent variable). Any measurements you make should be done using centimeters and/or milliliters.

Remember, if you need supplies that are not provided, ask and I will get them for you.

Good Luck!!

The Four Brands:

- Current Brand (Brown Paper Towel)
- Bounty
- Brawny
- Viva
Name:___________________________________  DUE Date:____________________  Hr.:_____

Title:____________________________________________________

Problem/Purpose:

_____________________________________________________________________________________________________
_____________________________________________________________________________________________________
_____________________________________________________________________________________________________

Hypothesis:

_____________________________________________________________________________________________________
_____________________________________________________________________________________________________
_____________________________________________________________________________________________________

Materials:

Experimental Variables:

Dependent variable: ______________________________

Independent variable: ____________________________

Constants (5-7):

_____________________________________________________________________________________________________

Control Group: _________________________________

Procedure:

_____________________________________________________________________________________________________
_____________________________________________________________________________________________________
_____________________________________________________________________________________________________
_____________________________________________________________________________________________________
_____________________________________________________________________________________________________
_____________________________________________________________________________________________________

Labs and Projects
Observations/Results:

Title: _____________________________________________

<table>
<thead>
<tr>
<th>Trial</th>
<th>Control Group</th>
<th>Brawny</th>
<th>Bounty</th>
<th>Viva</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>2</td>
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<tr>
<td>3</td>
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<tr>
<td>Average (Mean)</td>
<td></td>
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</tr>
</tbody>
</table>

Graph:

Title: _____________________________________________

Conclusion: (What was the problem you were investigating? What was your hypothesis and is it supported? How do you know (evidence)? Why do you think this happened (Inference)? What is your recommendation? What would you improve for next time; what were your errors?)

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Labs and Projects
Scientific Lab Report Rubric

**Appearance:** (5 points)
- Name, lab date and title are written on the front of the lab (2 points): ___
- The lab is neat (2 points): ___
- Proper spelling and grammar is used (1 point): ___

**Problem/Purpose:** (2 points)
- The reason for performing the lab is clear (2 points): ___
- The purpose is no more than four sentences long (1 point): ___

**Hypothesis:** (4 points)
- The hypothesis is an if, then statement and shows a relationship between the variables (4 points): ___

**Materials:** (4 points)
- The materials list is complete (2 points): ___
- Amounts/size of each material are included (2 points): ___

**Procedure:** (12 points)
- Every step of the experiment is included (2 points): ___
- Each step is short (1 point): ___
- Each step is numbered (1 point): ___
- Variables and constants are provided and accurate (6 points): ___
- Control group is provided and accurate (2 points): ___

**Observations and Results:** (12 points)
- Data is recorded in a proper form and is accurate (4 points): ___
- All tables and graphs of information are properly labeled with each part (6 points): ___
- All tables and graphs of information are neatly written; ruler is used (2 points): ___

**Conclusion:** (11 points)
- Restates the problem or question being investigated (1 point): ___
- Includes a one line sentence whether data is supporting or not supporting the hypothesis (2 points): ___
- Data is used to explain whether hypothesis is supported or not (3 points): ___
- Scientific explanation (inference) (3 points): ___
- At least two sources of error are recognized, and suggestions are made to avoid those errors in the future (2 points): ___

**Teamwork and Focus:** (10 points)
- Always listens to, shares with, and supports the efforts of others (5 points): ____
- Focused and cooperative (ie stays with group) (5 points): _____

**Final Score:** _______  A  B  C  D  E

60  

Labs and Projects