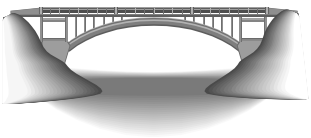
Name_____



Designing an Investigation

Problem: To design an investigation to test a hypothesis

Question: Does the shape of a paper bridge affect its strength?

Hypothesis: It is hypothesized that

_____

because_____.

Materials:

Several sheets of paper	3 paper cups
Pennies	Triple beam balance

What to do:

1. Make 3 different bridges. Use one sheet of paper and two paper cups for each bridge.
2. Measure the strength of each bridge by measuring the amount of mass it can hold.
3. Design a procedure for this investigation:
   a. _____
   _____
   b. _____
   _____
   c. _____
   _____
   d. _____
   _____
   e. _____
   _____
   f. _____
   _____
   g. _____
   _____
   h. _____
   _____
   i. _____
   _____

You may not use all of the spaces provided for you. You may need more. If so, write them on the back of the paper.

Data:
Make a chart to record your data:

Analyze Data:
Make a bar graph of the data you collected. Remember title, labels, and units of measurement.

Questions & Conclusion:

1. Why did we use a bar graph for this data?

   _____

   _____

2. What was the independent variable in this investigation? (Which variable did you change?)

   _____

   _____

3. What was the dependent variable in this investigation? (Which variable responded to what you changed? What did you observe and measure?)

   _____

   _____

4. Which variables were controlled?

   _____

   _____

5. Write a short paragraph describing what you learned about the shape of paper bridges and strength. Be prepared to "Go Public" – communicate your results to the rest of the class.