

Spaghetti Bridges

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Goal

- The students will collect, graph and interpret the data collected.

Grade Level

This activity can be used for higher elementary or middle school classes.

Objectives

- Given the necessary materials, the students will calculate the amount of pennies it takes to break certain amounts spaghetti pieces.
- Given the worksheet, the students will collect the data, graph the results, answer questions, and make predictions.

Bridge Background

- Engineers test the materials used in construction of buildings, roads, bridges, etc., for durability, strength, and safety. Testing models gives them the information in a manageable, cost efficient manner. The following activity is similar to a procedure used in testing the strength of bridge beams.

Materials

- 1 paper cup with 2 holes punched on opposite sides
- 1 cupful of pennies
- Uncooked spaghetti



What to do....

1. Thread a piece of spaghetti through the holes in the cup
2. One person will suspend the cup by placing each index finger approximately one inch in from the ends of the spaghetti.
3. Another student will carefully add pennies to the cup, one at a time, until the spaghetti breaks
4. Record the results on the chart
5. Repeat with different amounts of spaghetti

My Results

(x) Spaghetti Pieces	(y) Number of Pennies
1	42
2	69
3	101
4	133
5	164

After you have your data...

- Now that everyone has their data, we are going to answer some questions.
- Work with your group to answer questions 1-5

Sources

<http://fcit.usf.edu/fcat8m/resource/activity/spaghatt.htm>