Suspension Bridge Challenge

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In science models, are used to illustrate complex ideas and to test a hypothesis in controlled conditions. You are challenged to make a model of a suspension bridge that fits the following criteria using the limited supplies handed to you by your teacher.

**Minimum requirements of the bridge:**

The bridge must be at least 20 cm in length and 6 cm in width. The bridge must be designed and built in such a way to hold a container of sand without breaking. The bridges that can support the most mass will be deemed the winner of the challenge. You can only use the materials provided on the materials list below:

**Materials:** 15 popsicle sticks, 10 stirring sticks, 10 rubber bands, 10 tooth picks (Provided by your teacher), unlimited string (provided by you) **Important: All unused material is to be returned to your teacher and accounted for on your diagram along with the used materials!**

**Write up:** In addition, to building the bridge you are expected to provide a lab write up of your bridge building experience which includes:

* A diagram of your bridge including measurements and labels of material; please include an inventory of your materials and where you used your materials in the bridge.
* A paragraph describing how you built and tested your bridge include any changes in design as you went through your final process (paragraph must be written in complete thought sentences).
* A data table of the amount of weight that your bridge held and each of your classmates bridges and graphs the data in the data table using a bar graph (This will be done in class).
* A conclusion of why or why not your bridge met the challenge and what you would do in the future to be more successful or more efficient in your bridge building ( completed after testing).

Please feel free to research suspension bridges and tying knots to help you complete this challenge!

HAPPY BRIDGE BUILDING, The 6th grade Team!