Bridge Contest Rules

Objective: To build a popsicle stick bridge that has the highest load to weight ratio. The bridge must meet all criteria and be constructed of approved materials.

Materials:

- Popsicle Sticks (Craft Sticks)

Popsicle sticks may be cut to fit where needed. The standard size of craft sticks that shall be used is 4 ½ x 3/8 x 1/12 inches.

- White Paper Glue (School Glue)

No other glue may be used because it may add to the structural integrity of the bridge.

- Magic Markers may be used to decorate bridges if desired.

No other decorative substitutes may be used because they may add to the structural integrity of the bridge.

The bridge should have a through-truss design.
Bridges may not be continuous popsicle sticks, looking from the side, the judges must be able to see through the bridge.

** The maximum weight of the bridge allowed is 0.5 lb.
This is approximately 150 popsicle sticks and 2 oz. of school glue.

Dimensions:

- Minimum span length = 18 inches

There will be a 18 inch "gap" which must be spanned by the bridge.

- Maximum Span Length = 24 inches

- Minimum span width = 2 inches

The bridge deck (roadway surface) must be flat and continuous to allow a vehicle to pass over the bridge (Matchbox Car).

- Minimum span height = 3 inches

The distance from the top of the table to the top/bottom of the bridge.

- The bridge deck must have a minimum clear surface area at center span of 3 inches wide in order to allow for a plate to be placed on the deck of the bridge, through the trusses.

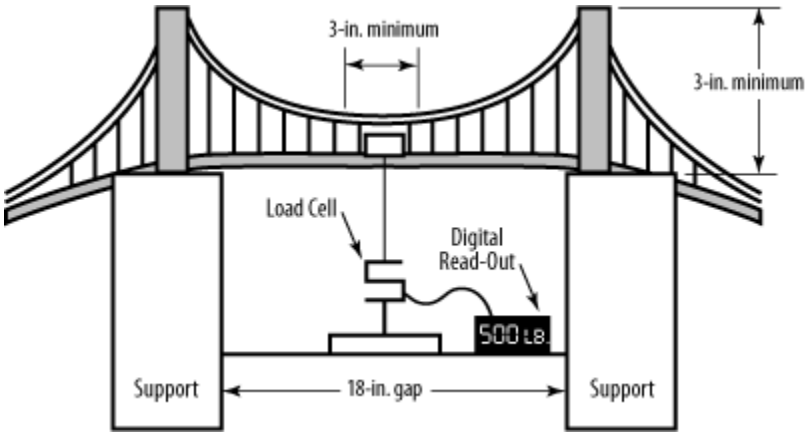
This is where the load will be applied to test the strength.

- The bridge must be able to stand on its own.

Bridge Testing:

Any bridge that does not meet the above criteria will be placed in a "non-competitive" category, and will not be eligible to receive any prizes. However, each contestant will get recognized for participating in the event, and every bridge will be tested.

Bridges will be weighed before testing. The bridge will be loaded until it breaks. The greatest load prior to the collapse of the bridge will be the bridge's capacity. The capacity divided by the bridge weight will be the bridge's load to weight ratio. The highest load to weight ratio will win the event.



The above example illustrates how the bridge will be loaded, and the minimum dimensions that need to be met.

The bridge may be any design that you choose, and take on any shape you wish. All bridges will be accepted as long as they meet the criteria.

If you have any questions, please don't hesitate to call.

Have Fun !

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