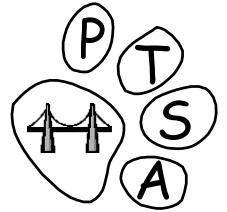


# Mark Twain Elementary School Popsicle Stick Bridge Crushing Contest Engineering Fair Entry Form



Saturday, May 29<sup>th</sup>  
10:00-11:00 K – 1<sup>st</sup> Grades  
11:00-12:00 2<sup>nd</sup> – 3<sup>rd</sup> Grades  
12:00-1:00 4<sup>th</sup> - 6<sup>th</sup> Grades



Name of Engineer \_\_\_\_\_

Grade \_\_\_\_\_

Type of Bridge

Truss



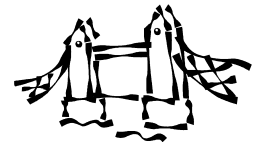
Suspension



Beam



Arch



Yes I'll bring this entry form to the contest and won't turn it in beforehand.

OK to photo me for school purposes and be put on the school website (which is part of the internet), memory book, bulletin boards (first names only)  Not OK to photo.

Yes I want to help at the contest with my parent for extra fun! Have your parents contact Michael by phone at 425-497-8400 or by email at [mb.fox@verizon.net](mailto:mb.fox@verizon.net)

Load Score

# Mark Twain Elementary 2010 Engineering Fair Popsicle Stick Bridge “Crushing” Contest

The thrill of the contest involves loading the bridge using a testing machine that reads out weight in pounds until catastrophic failure occurs!

Photos of past year’s events, testing machines, and examples of bridges located at [www.kodakgallery.com/mfox/marktwain](http://www.kodakgallery.com/mfox/marktwain). Remember, multiple bridges can be built and crushed for extra fun! To volunteer or ask questions contact Michael Fox at 425-497-8400 or by email at [mb.fox@verizon.net](mailto:mb.fox@verizon.net).

## Rules

Sticks: only 120 Popsicle sticks per bridge.

Glue: only white.

Bridge length minimums: Four sticks end to end for grades K – 2<sup>nd</sup>. Five sticks end to end for 3<sup>rd</sup> and 4<sup>th</sup> grades. Six sticks end to end for 5<sup>th</sup> & 6<sup>th</sup> grades.

Loading: Bridges will be crushed in a testing machine using a 3 inch “foot” on the roadway at mid-span. Please make sure the foot can reach the roadway.

Suspension bridges: only one strand of string per support.

Do not glue more than three sticks together per support beam.

## Frequently Asked Questions

Q: Can I paint/color the bridges or add decorations to them? A: Yes!

Q: Can I notch, cut slots, shave down, and drill holes in the sticks? A: Yes

Q: Can I saturate the members in glue? A: Yes, white glue only.

Q: Will there be judging this year? A: No.

Q: Will there be ice cream? A: Sorry, no.

Q: I can’t make it to the event, what do I do? A: Leave the bridge with an entry form attached in the PTSA office. We’ll crush it real good and write the load score on the form. Return on Monday to pick it up.

## Tips

Use wax paper, so it doesn’t stay glued to the table or floor!

Work on parts, wait a couple of hours, then glue the parts together.

Use small pieces of masking tape to hold parts together until dry.

A box of 1000 sticks can be bought at craft stores for about \$6.00.

