

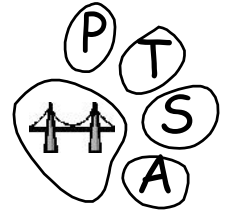
Mark Twain Elementary School Tiny Truss Bridge Crushing Contest 2013 Engineering Fair Entry Form



Sat April 20th

10:00 – 11:00 Last Name A-L

11:00 – 12:00 Last Name M-Z



Name of Engineer _____

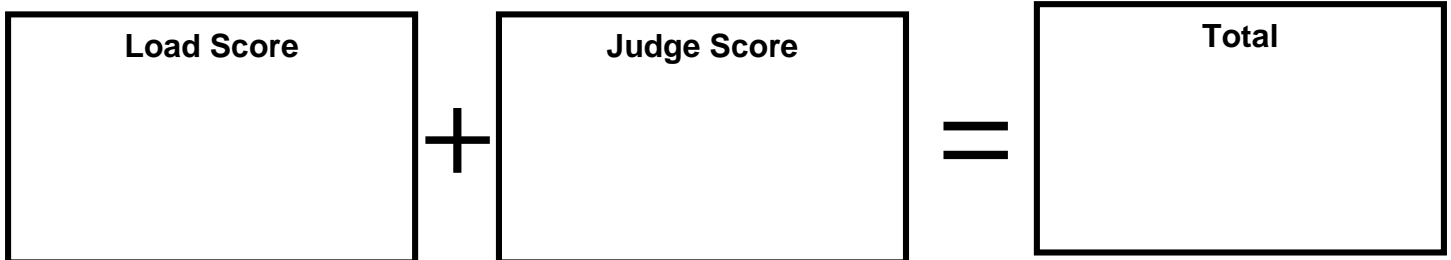
Teacher & Grade _____

Parent Name _____

Parent Signature _____

Email _____

- Yes I'll Bring this entry form to the contest and won't turn it in beforehand.
- Yes I've read the rules and helpful information at PTSA link www.lwsd.org/school/twain.
- Yes I want to help at one of the great activity stations with my parent as a team.



Please pick up your bridge kit from the main office, or you can purchase the supplies yourself as long as they match the materials described. Along with the kit, you may want to pick up clips to hold sticks together while gluing. Please bring this entry form and your bridge to the event on Saturday!

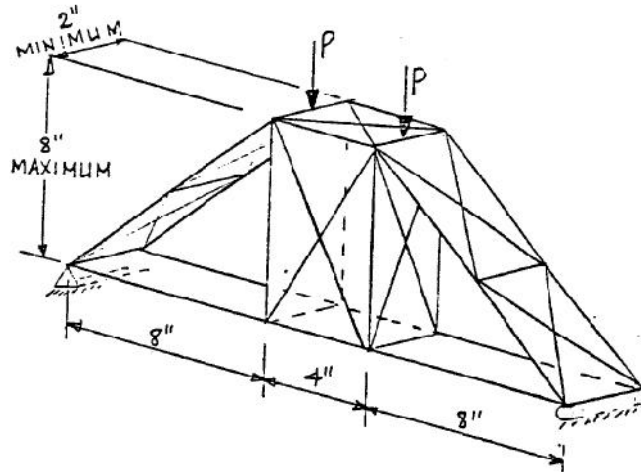
Please note that photographers may be present to take pictures during the contest. By entering, you acknowledge it is acceptable to take pictures of your child at the event.

Materials

- 100 wooden coffee stirrers (5 ½" long)
- 1 "Engineering" sheet (8 ½" x 11")
- 1 brown paper bag (about 9 ¾" tall x 5" wide x 3" deep)

Rules

1. Your truss can consist of no more materials than those listed above and glue as specified in rule #2
2. Truss must be glued with Elmer's white glue only.
3. Entries must meet the dimensions below



Load Conditions

- Edge supports must clear a 20 inch span. (Make your bridge longer than 20 inches!)
- Two equal loads will be applied 8 inches from each support. (See P in the above diagram)

Bridge Failure

When loading the bridge, failure is defined as either a structural collapse or instability (i.e. falling off the supports)

Notes

A coffee stirrer bridge will be slightly more challenging for younger builders, so helping them plan ahead is recommended! We advise planning ahead and leaving sufficient time to dry!

Frequently Asked Questions

- Q: Can we notch, cut slots, shave down, and drill holes in the sticks? **A: Yes, as long as you don't add materials from those listed above**
- Q: Are there limits to how we stack or join stirrers? **A: No. You can use the materials above in any way you wish.**
- Q: Can we saturate the members in white glue? **A: Yes. But white Elmer's glue only.**
- Q: Can we use small nails, tacks or clips? **A: Yes, using clips to hold sticks during gluing is recommended! However, all of these must be removed from the final bridge before testing.**
- Q: Can we use the included engineering sheet as part of the bridge? **A: Yes**
- Q: Can my parents or siblings build a bridge as well? **A: Yes, we will crush them all!**
- Q: Why coffee stirrers instead of Popsicle sticks like last year? **A: Our bridge crushing machine is out of order this year, so we are trying a new method of breaking bridges!**