

# Reserve your popsicle sticks for the 2012 Mark Twin Bridge Crushing Contest, coming Saturday, January 7, 2012

Test out your engineering ideas! Build a bridge out of popsicle sticks and glue, then bring it to the bridge crushing contest. A "crushing machine" will load the bridge until it fails and read out a weight. Your bridges are your to take home afterwards and with a little glue and drying time it will be good as new.

#### Want to join in the fun?

Just return the form below by November 23<sup>rd</sup> with your name, grade and teacher's name to reserve your bundle of 120 popsicle sticks.

## Want to get started right away and already have popsicle sticks?

Great! No need to send in a form.

#### Want to buy your own sticks to build additional bridges?

Try Ben Franklin or Michael's Arts and Crafts. Parents, if you want to join the fun, too, consider entering in the parent category.

## Want more information?

The rules, some helpful tips, and answers to frequently-asked questions are on the back of this flyer.

## When do we show up?

10:00 A.M. for Kindergarten and  $1^{st}$  graders 10:45 A.M. for  $2^{nd}$  –and  $3^{rd}$  graders 11:15 for  $4^{th}$  –  $6^{th}$ 

If you arrive before noon, your bride will get crushed.

## Happy engineering!

Yes! I want to build a bridge. Please reserve 120 popsicle sticks for me. I'll pick them up from my teacher in December.

Name\_\_\_

Teacher's Name\_\_\_\_\_

Grade:\_\_\_\_\_

#### Rules

- 120 popsicle sticks per bridge.
- White or wood glue only
- Bridge length minimums:
  - $\circ$  Four sticks end to end for grades K 2<sup>nd</sup> grades
  - Five sticks end to end for 3rd and 4th grades.
  - Six sticks end to end for 5th & 6th grades.
- The bridge will be crushed in a testing machine using a 3 inch "foot" on the roadway at mid-span. Please make sure the foot will be able to reach the roadway.
- Only one strand of string per support for suspension bridges: .
- Do not glue more than three sticks together per support beam.

## **Helpful 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
- Parents, help your student take step-by-step digital photos of the bridge during construction as a how to and submit it so we can use it to inspire other students!
- Volunteer to man an activity station as a team with your student for a more memorable experience!

## **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 or wood glue only (no polyurethane glues)

Q: Will there be judging this year?

A: Yes.

- 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.

## Q: How do we volunteer?

A: Contact susan.e.swift@gmail.com.

