



2009 POPSICLE STICK BRIDGE BUILDING CONTEST

APEGBC West Kootenay Branch

INFORMATION SHEET

Instructions:

There are no step-by-step instructions for this project! The object is to build a bridge using only Popsicle sticks and glue, big enough for a "hot-wheels " car to go across, and as strong as you can make it. One hint - any glued joint will be much stronger if it can be clamped in some fashion, like with a clothes peg, a C-clamp, or a vice.

Materials:

100 Popsicle sticks

White glue (provided)

NO other materials may be used (no additional glue, no substitute glues, no additional popsicle sticks, no substitute sticks); all materials are supplied in kit. (No, you can't cut up the glue bottle and use it!)

Where:

Selkirk College gymnasium, Castlegar Campus, Castlegar, B.C.

This year, the contest is being held in conjunction with the **Community Science Celebration** - Come check out **The West Kootenay Regional Science Fair** and see the stage shows put on by the staff of **Science World**.

Note: You don't have to be there to win a prize, but somebody has to come and register for you and drop off your bridge.

When:

Saturday, April 4, 2008. Doors open 11:00AM to 4:00PM. See **Categories, testing, and PRIZES** below for registration and testing times.

Testing Equipment:

To load and test the bridge, a loading plate 200 mm long by 38 mm wide will first be laid onto the bridge decking. Please ensure the top of the bridge is open enough to allow this plate onto the deck, and also permit the "loading strut" to project out the top of the bridge. See attached sketch. A force will then be applied to the bridge using the loading plate until the bridge fails (ouch!). The maximum load seen by the bridge prior to failure will be its recorded "bridge maximum load".

Contest rules:

- The bridge will have to span 500 mm.
 - The total length of the bridge must be between 520 mm and 550 mm.
 - The maximum height of the bridge is 300 mm.
 - The bridge deck must have a minimum width of 40 mm (for the loading plate... and the "hot-wheels" car)
 - The loading strut must be able to come through the top of the bridge.
 - All supplies **MUST** come from the purchased kit; no substitutions will be permitted
- BRIDGES NOT MEETING THE ABOVE REQUIREMENTS WILL BE DISQUALIFIED.**

Categories, testing, and PRIZES:

- Ages 8 and under - Register by 1:00
 - Ages 9 to 12 - Register by 2:00
 - Ages 13 to 18 - Register by 3:00
- First, second, and third prizes of \$50, \$40, and \$30, respectively, will be awarded for each of the above categories.
- Unlimited category (includes contest organizers and their families, teachers, and anyone else over 18). Register any time. Sorry, no prize money.

Note:

All bridges submitted for testing will be destroyed. They will be loaded until they break. You can take the pieces home if you wish, but it's not likely you'll be able to take home an intact bridge.

Sketch:

POPSICLE STICK BRIDGE

