

RECIPE: Children's Bridge (STEM) Workshop

Ingredients:

- 1 - 12" x 24" cardboard or fiberboard base (box tops from paper reams are ideal) per each team or individual
- 1 roll of tape (masking or Scotch) per each team or 3-5 participants
- 1 set of recyclable materials per each team or individual
 - 10 - 20 plastic straws or 8 - 10 Popsicle sticks
 - 1 - 2 pcs. of construction paper - OR - paper plates (req. more cutting) - OR - TP rolls
 - Scissors or helpers with scissors to help cut materials
 - 2 - 4 small pieces of cardboard suggest less than 5"x3" [optional]
 - 1 piece blue construction paper [optional]
 - 1 children's author & bridge historian, Patrick McBriarty - patrick@ptmwerk.com [optional]

Instructions: Prepare area and materials. Enlist facilitators (2 per 10 kids). Discuss the basic concepts & use of bridges. Read aloud or assign books on bridges, like the **Illinois Reads** 2017 selection - *Drawbridges Open and Close* by Patrick McBriarty. Talk about who designs & builds bridges and the different kinds of materials used to build bridges.

Give participants approx. 30-minutes to build their bridges. Organize teams as needed. Explain each bridge should span the width of the blue sheet of construction paper. Pour in kids to mix with the materials and let the bridges rise. Facilitators mix evenly to answer questions, cut tape, or materials. When done evaluate bridges. If time permits wreck and repeat. Second & third attempts will be even more refined (i.e. see Engineering Design Process). **For Pre-K - 6th Grade.**