

POPSICLE STICK BRIDGE!

Have you ever wondered how bridges are made, and how they can hold so much weight? Let's build one and find out!

PROGRAM PREMIERE

Youtube

Friday, November 27, 2020 @ 10:00AM

CREATE YOUR OWN BRIDGE

Materials Required:

- a flat surface, popsicle sticks, wood glue, mini binder clips, scissors, and objects of various weights

Instructions:

1. Glue 3 popsicle sticks in a straight line. Take another popsicle stick, cut it in half, and place one at each end. Glue two more popsicle sticks in the middle to make your 2nd layer, and then glue 3 more popsicle sticks on top of that to create your 3rd layer. This will be your beam. Repeat to create (4) 3-stick beams and (2) 2 stick beams.
2. Arrange your 2-stick beam centered above your 3-stick beam. Place 6 popsicle sticks in a triangular pattern connecting between the beams. Glue into place using the binder clips for hold. Once dry, turn the truss wall over and repeat to create your 2nd truss wall.
3. Line your 2 remaining 3-stick beams on their side, about 1 popsicle stick apart. Lay 30-35 popsicle sticks flat on top of the two beams, making sure there are no gaps. Glue into place using the binder clips for hold.
4. Now, grab 9 popsicle sticks. Space 5 sticks equally apart and straight across the top of the bridge. Now, use the remaining 4 sticks to create a triangle shape in between every 2 popsicle sticks. Glue the sticks down, and hold in place until dry.
5. Once your bridge base is done, glue the truss walls to the edges of the base, with the 3-stick beam side down. Use extra glue for the joints between the base and the truss wall. Hold in place until dry.
6. Time to test your bridge! Space your tables or even surfaces just far enough that your bridge can sit between. Starting with your lightest object and working up to your heaviest object, see how much weight (load) your bridge can hold!
7. Share your creations with us on Facebook or Instagram using the hashtag #cppasceSTEM



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