



TOOTHPICK BRIDGES

Age Group
5-11 yrs

THE BIG IDEA: As bridge architects and builders, children will practice fine motor skills and think like an engineer.

HERE IS WHAT YOU WILL NEED:

- Stale Mini-Marshmallows (about 50 per bridge)
- Round Toothpicks
- Spaghetti-Style Pasta
- Cardstock, Construction Paper, or Cardboard (the road for the bridge)
- Paper or Journal, and Pencils
- Testing Materials: Small Toy Car, Weights (e.g., coins, nuts and washers, etc.), Towers (e.g., two stacks of books)

HOW TO DO IT!

STEP 1	STEP 2	STEP 3
<p>Gather pictures of bridges to share (e.g., Golden Gate Bridge, Brooklyn Bridge, Tower Bridge, Sydney Harbour Bridge, etc.).</p> <p>Encourage the learner to make observations about the bridges. Ask questions:</p> <p><i>What shapes do you see? Who is using the bridge? Does anything look the same about these bridges? Does anything look different?</i></p> <p>IN STEP 1 YOUR CHILD IS PRACTICING:</p> <ul style="list-style-type: none"> - Careful observation - Language and communication - Introduction to vocabulary 	<p>Before building a bridge, encourage the child or children to envision what their bridge might look like. Ask questions:</p> <p>Who uses the bridge? What does it connect? Do people walk across your bridge, or do they drive across it?</p> <p>If they are interested, encourage the learner to draw a picture of their bridge before they start building.</p> <p>IN STEP 2 YOUR CHILD IS PRACTICING:</p> <ul style="list-style-type: none"> - Formulating a plan - Creating a design - Understanding purpose 	<p>Allow them time to build their bridge. They may discover that their original plan won't work and, as such, have to make modifications as they go. Some may forgo their drawn plan and just start building.</p> <p>Encourage frequent testing of the bridge and exploring modifications that can be made to improve its performance.</p> <p>IN STEP 3 YOUR CHILD IS PRACTICING:</p> <ul style="list-style-type: none"> - Fine motor skills - Careful observation - Testing and redesign

TIPS & TRICKS

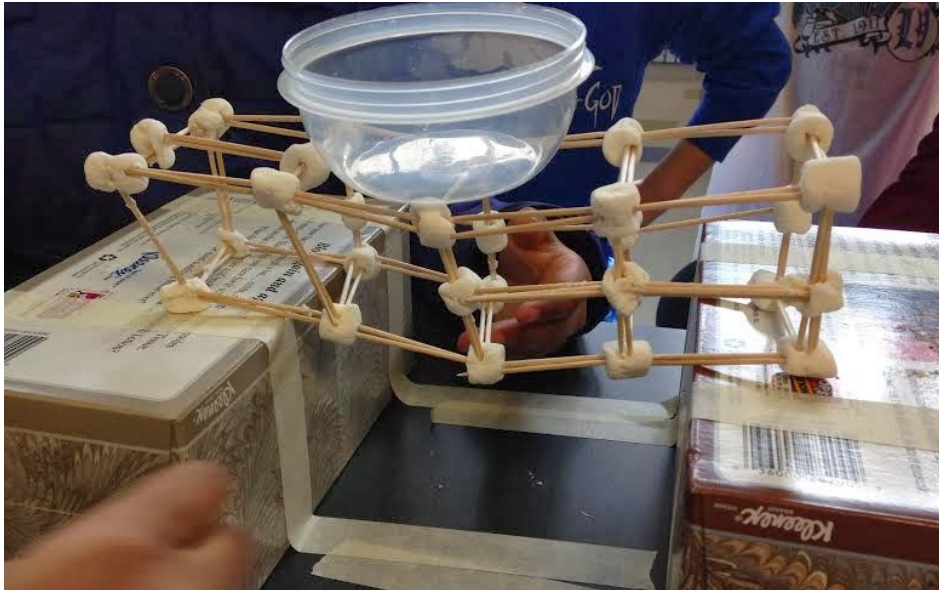
- As the caregiver, stay as hands-off as you can throughout the project. Let the children try, fail, and succeed on their own merit.
- Refrain from offering your opinions on their bridge. Instead, ask children to make observations about their bridge and its performance.
- Remind children that if they eat their marshmallows, they'll have fewer materials for building. While it's generally not recommended to eat while making, it may be a good idea to have something to snack on during this project, simply as a preventative measure.
- Don't forget to share your creations with us on social media by tagging @TheDoSeum and #DoSeumAtHome



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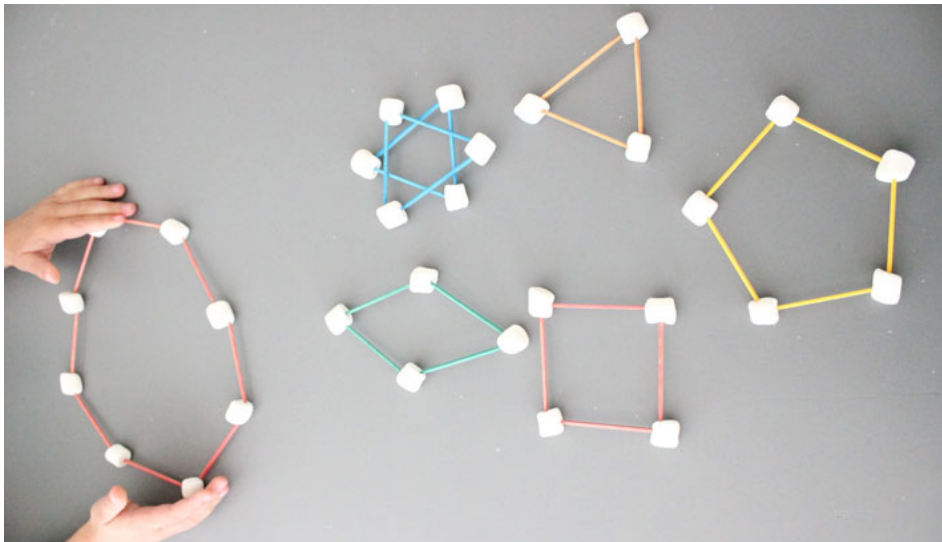
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5-11 yrs

WHAT IT COULD LOOK LIKE:



Materials Used:

Round Toothpicks
Mini-Marshmallows
Small Container
Tissue Boxes
Masking Tape



Materials Used:

Toothpicks
Mini-Marshmallows

TEKS:

K: § 110.2.b.1, § 110.2.b.3, §111.2.b.1.B, §111.2.b.6.A, §111.2.b.7.A, §112.11.b.1 • 1st: §110.3.b.1, §110.b.3 §111.3.b.1.B, §111.3.b.7.A, §112.12.b.1, § 112.12.b.2.A-C, § 112.12.b.3.B • 2nd: §110.4.b.1, §110.4.b.3, §111.4.b.1.B, §111.4.b.8.E, §111.4.b.9.A, § 111.4.b.9.E, §112.13.b.1, §112.13.b.3.A, §112.12.b.3.A-B • 3rd: §110.5.b.1, §110.5.b.1.A, §110.5.b.3, §111.5.b.1.B, §111.5.b.6.A, §112.14.b.1, §112.14.b.2.A • 4th: §110.6.b.1, §110.6.b.3, §110.6.b.13.A, §111.6.b.1.B, §111.6.b.6.A, §112.15.b.1, §112.15.b.2.A, §112.15.b.3 • 5th: §110.7.b.1-3, § 111.7.b.1.B, §112.16.b.1, §112.16.b.2.D