

PIECING TOGETHER



ACTIVITY: MARSHMALLOW & TOOTHPICK STRUCTURES

FOR AGES: 5-15, or as developmentally appropriate

ESTIMATED TIME: 1-2 hours

STEM AREA: ENGINEERING (Architectural Engineering) Architects must consider how to efficiently use supplies to create the safest and most successful design.

CAREER OPTIONS: Engineering Technician, Construction Manager, Civil Engineer

INSTRUCTIONS:

ITEMS NEEDED: 30 miniature marshmallows
30 small round toothpicks

PROCEDURE: 1. Using the toothpicks for the sides and the marshmallows for the corners, build a cube.



2. Using the toothpicks for the sides and the marshmallows for the points, build a pyramid.



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3. Deconstruct the cube and the pyramid and ask the student to make a structure that will stand on its own using all of the marshmallows and toothpicks provided.

OTHER OPTIONS:

Build the tallest structure you can

Double the number of toothpicks and marshmallows you use

Use large marshmallows and wooden chop sticks

Build a structure strong enough to hold a box of tissues

Build with a friend or sibling and try to link the structures together

MORE ENGINEERING IF YOU LIKE THIS:

- Build with Legos
- Use graph paper to design buildings or structures; or make a paper house town
- Volunteer with Habitat for Humanity to see architecture in action
- Try to build a frame, a planter box, or a simple piece of furniture

