

STEM Explanation:

Architectural engineers often use triangles when they design buildings. Did you notice that your dome is made up of lots of triangles? That's because triangles are stable shapes. That means they don't bend, twist, or collapse easily when you push on them. A square is not as stable as a triangle. Test it! Make a gumdrop square and triangle out of toothpicks and gumdrops; then stand each one up. Press down on one corner of each shape. How do the two shapes compare? Does one bend, twist, or collapse more easily than the other? Think about the materials that real buildings are made out of. Do you think architects use the same structures that we used in our activity when designing buildings?

Career Connection:

Architects plan and design buildings for various uses. They use their scientific and mathematical knowledge of physics to understand building construction as well as their artistic abilities to design visually appealing structures. Architects are scientists, mathematicians, and artists. To become an architect you need a four-year degree and a professional degree from an architectural program.

Resource:

<http://www-tc.pbskids.org/zoom/printables/activities/pdfs/gumdropdome.pdf>

31 Days of STEM FUN!

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