



FAMILY STEM CHALLENGE

Geodesic-Inspired Dome Design Challenge

CAREER CONNECTION

Are you interested in helping people and animals during natural disasters? If so, you might enjoy working as a **disaster response technician** or **emergency management planner**. They work to have creative solutions to help people in need, including innovative shelters.

CAN YOU MAKE A CLUBHOUSE WITH TRIANGLES AND SQUARES?

1. Use painters tape or yarn to make a circle to show the size of the base of your clubhouse.
2. Cut out squares from cardboard boxes to make a fence structure following the outline of your circle. Try to make the squares at least 12 inches x 12 inches. Use tape to tape them together. Leave a section free for your entryway! If you want to use triangles for the entire structure, that is fine too!
3. Cut triangles with 12-inch sides (or whatever sized squares you used). Start to use those to build a dome top. *Hint! Start by taping a triangle to the top of each of the squares to make a classic house shape with a square and triangle point.
4. Keep making triangles to continue building out your dome shape. You may need to make triangles of different sizes, and that's okay! Your triangles will need to be positioned in different directions. Tape your triangles onto the dome as you go until you have sealed your clubhouse.

Bonus: What other shelters could you build indoors? Can you make your design into an igloo? What about making entryways in your home look like castles?