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ENGINEERING PROJECT:

Use Materials to Build a Structure that can Withstand Earthquakes

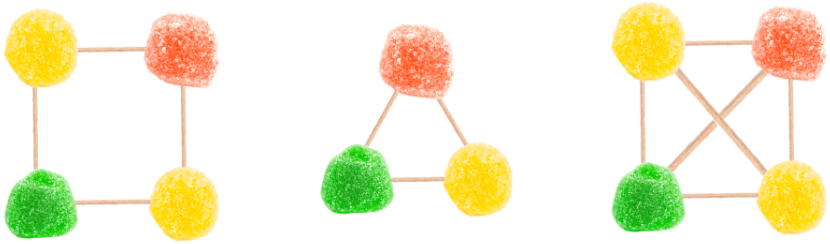
Engineers must design structures for what the earth might put it up against, including earthquakes. This project is to design an earthquake-proof structure by choosing good materials.

MATERIALS NEEDED:

- Gum drops
- Toothpicks
- Prepared Tray of Jell-O

GO DISCOVER:

1. Using the instructions on the Jell-O, prepare a tray of Jell-O in a flat container
2. Using the toothpicks and gum drops, create a square, triangle, and a square with crisscross bracing inside of it. Which feels strongest to you?



3. Using 30 toothpicks and 30 gum drops as building materials create a structure at least 6 inches tall that contains both a square and a triangle. Your goal is to create a structure that will best stand up to an "earthquake"
4. Place the structures on the Jell-O
5. If aluminum pans are were used to prepare the Jell-O in, tap the pans on the bottom to simulate compression or primary waves. If glass baking dishes are used, shake them back and forth to simulate S or secondary waves.
6. After initial testing, prepare the structures again trying to make a structure that will better stand up to the "Earthquake".