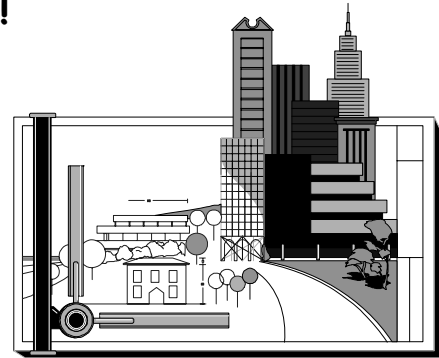


Earthquake Alert!

Materials

- 20 or more sugar cubes, or other tiny cubes
- A shoe box lid
- 2 books of equal width
- A dark marker to write with



Procedure

1. On the underside of the shoe box lid, draw a square in the center, about 4 inches on each side. Write the numbers 1 through 4 on the lid, one to the outside of each corner of the square.
2. Set the lid up securely on two books standing on their sides, so that you can easily fit your hand under the lid. Make sure the square and numbers side of the lid is facing up, and that the lid is balanced evenly between the books.
3. By each number on the lid, construct a cube "building". By the 1, set two cubes side by side. By 2, set two cubes one on top of the other. By 3, stack 4 cubes on top of each other. By 4, use twelve cubes to make a pyramid - five cubes on the bottom, four on top of that, two on top of the four, and one on the very top.
4. When your structures are all set up, start flicking the bottom of the lid in the center of the circle. You are simulating an earthquake - watch to see which structure can stand the longest!
5. Try making up your own structure designs and have others test them.

The shape of a building helps determine how well it can remain standing when forces such as an earthquake act upon it. Other factors are the materials used in the construction (especially the frame) of the building, the soil type it is set upon, and methods used in laying the foundation.

