



Do It Yourself (DIY) Activity

Shake Table DIY

 Duration: **30 min**

 Difficulty: **Medium**

 Cost: **\$0 to \$5**

Make a shake table to test different building designs!

Material List

- 2** Textbooks
- 4** Marbles
- 2** Large rubber bands
- 30** Sugar cubes

Instructions

- 1** Use two large rubber bands to secure two textbooks together.
- 2** Place four marbles in-between the two books.
- 3** Make sure the marbles are close to the corners but will not fall out when shaking.
- 4** On top of the books, build a sugar cube house that's three cubes high and three cubes wide.
- 5** Now push and pull on the top book to simulate an earthquake.
- 6** Try building structures of different sizes and shapes to see which one is best.

How It Works

A shake table can help engineers build earthquake-proof buildings. Buildings that are tall will shake more than buildings that are close to the ground. With this in mind, engineers can use what they learned from using a shake table to change designs to keep buildings from falling down and hurting people during an earthquake.