

STEAM CHALLENGE



Dancing Buildings

1

Introduction

Earthquakes can happen at anytime, and it is important for all buildings to be able to sustain them. Engineers use different properties of the buildings to design them. Could you think what these properties are?

2

Materials

- Shaking table
- K'nex rods and connectors (or toothpicks and soft candies)
- Weights



3

Instructions

Use the K'nex toys or the toothpicks and candies to build your structure. Secure the weights to your structure. You can make it as tall as you want—place and secure it on top of your shaking table.

Watch your building dance to the input motions and frequencies.

4

Let's Discuss

Why does the building move? Does the placement of the weight affect the movement? Does the movement change when the frequencies change? How does an engineer use these concepts to design buildings?



5

Tell the World!

Liked this activity? Learned something new? Shared what you discovered with your friends. Keep asking questions and stay curious!

