



## Inquire & Investigate

## EARTHQUAKE IN A BOX

Scientists use models to better understand complex concepts and processes. Model what happens during an earthquake and see what new things you discover.

- **Using building materials such as wooden blocks, heavy paper, thin paper, and interlocking plastic blocks such as Lego bricks, build some structures inside a shallow box or box lid.** Fold sheets of paper and balance pieces of building material on each other. Do not attach the building pieces together with tape or glue.
- **Gently shake the box.** What happens? If some structures are still standing, shake a little bit harder. What happens now?
- **Now, rebuild your structures.** This time try different ways of attaching the pieces.
- **Gently shake the box again.** What happens?
- **Put a layer of sand or gravel in the bottom of the box.** How does this new “ground” affect the structures when you shake the box?
- **What can you learn about how different building materials and different land surfaces affect buildings in an earthquake?** Did heavy, solid pieces survive better? Or did lighter, flexible pieces do better?

### Text-to-World Connection



Do you live in an area prone to earthquakes? What safety measures do you have in place?

To investigate more, research what building materials are recommended for areas prone to earthquakes. What are the advantages and disadvantages of different building materials?