



# Paper Tower Challenges

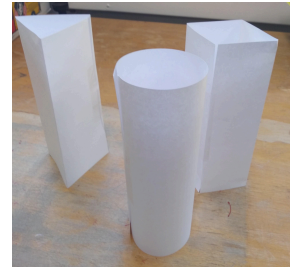
Adapted from: *Hardhatting in a Geo World* - AIMS Education Foundation

## Materials:

- 8 ½ x 11 paper (second-use or recycled paper)
- tape
- hardcover books
- scissors

## The Challenge (pick one):

- ★ **Challenge #1:** Fold pieces of paper into a tube (circle), a triangle, and a square. Which shape will support the most weight?
- ★ **Challenge #2:** Try building other types of tubes - how strong can you make your tube?
- ★ **Challenge #3:** Build a paper tube(s) that will support a person - *with adult supervision!*



## The Constraints:

The tube must be at least 3 cm tall

Your tower must hold the books (or person) off the ground for 5 seconds. No body parts may touch the ground during the test.

## Notes:

Challenges 1 & 2: To conduct a strength test, place the tube vertically on a smooth, flat surface. Carefully center a book on top of it. Keep adding books, one at a time, until the tube is crushed.

Challenge 3: Center a book (or flat surface) over the tube and have a person stand on top of the book with one foot, using a chair or another person to maintain balance.