US Army Corps of Engineers®

Walla Walla District
National Engineer Week 2026
Paper Tower Contest Rules

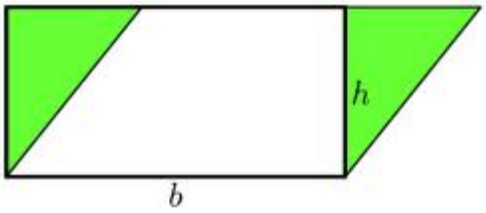
PAPER TOWER RULES:

- Materials are to be provided by each team or class or school:
  - 25 Sheets of 8 ½" x 11" copy paper (20lb weight per 500 sheets)
- Teams of 1 or 2 or 3 people are allowed to compete in the contest, as directed by the teacher or instructor of each class.
- Teams are allowed to build their tower throughout the weeks leading up to Testing Day during the week of Engineering Week, 23-27, February 2026.
- Any tools or aides are allowed during the constructing of the tower. However, during the test period, nothing but the 25 sheets of copy paper are allowed to support the final height.
- Towers must be free standing for a minimum of 1 minute, WHILE supporting 2 pounds of weight, before being measured for height.
  - Recommended types of weight; heavy stapler, 32 oz. of water, or a heavy text book.
- Height of tower will be the highest point which is supporting the 2 pound weight.
- Students who disturb another group's tower will be automatically disqualified.
- Enjoy yourselves and have fun!!!

HELPFUL TIPS TO BUILDING TOWERS:

- A Strong Foundation
  - Key to any successful structure
  - The center of gravity of the tower must be above the footprint of the base
  - Compare the Leaning Tower of Pisa to the Pyramids of Giza

- Basic Shapes
  - Use shapes that require the minimum amount of lateral support and material
  - Triangles and diagonals are a key basic structure that cannot deflect easily.
  - Rectangles can become parallelograms without diagonal support. Can lead to collapse of the tower.



- Copy and Stack
    - Once a strong basic shape is developed, the shape is copied and stacked, connected on top of each other.
    - Find a way to keep all your team members busy for the entire 20 minutes. As will all towers, it takes a lot of time to actually build them. One person watching will cut your production time down.

- Symmetry
    - Most towers look the same from all sides, but some can stand with just one line of symmetry. For example, our bodies have one line of symmetry down the middle and we can stand on both feet easily.
    - Also, quality workmanship goes a long way into making a tower stand. If your basic building units vary in length and size, the tower will not only look sloppy, but also not have symmetry and balance the loads well. This will lead to an increased chance of toppling.