

33. Building Straw Towers

Description of Activity:

- To build a tower using straws and masking tape to mimic the tallest tower

Grade(s):

- Grades 4-11

Strand(s):

- Understanding Structures and Mechanisms
Physics

Overall Expectations:

- To build the tallest free standing tower using straws and masking tape

Assessment Categories:

- Application
- Thinking and Investigation
- Knowledge and Understanding
- Communication

Cross-disciplinary connections:

- Social Studies, History and Geography – understand why a country would build the tallest tower, economics, social economics, geography
- Mathematics – the math of structures

Type of Activity:

- Classroom/Science Lab
- Whole class demonstration/presentation
- Small Group work

Preparation:

- Find the tallest free standing towers, from 1900's, Eifel tower, CN tower, 2007- Burj Dubai Tower in Dubai. Find photos, find facts about how these towers affected social economics of the nation. Find facts on how the tallest tower differed over the years. Why build a tallest tower. Why every country does not have a tallest tower.
- Purchase straws (need about 200 for each group), masking tape, need tape measure, scissors teacher needs ladder to measure tower. Ladder not for students



Approximate time for preparation:

- 1 hour

Materials and resources for teachers and for students

- Straws (about 200 for each group)
- Masking tape
- Tape measurer
- Ladde (for the teacher to measure the tower)

Detailed description

- A short lesson on the world to present history's tallest towers. Also, a short lesson on structure building for strength purposes.
- Divide students into groups of 4 -5. Provide each group with straws, masking tape, and scissors and instruct to build tallest free standing tower in 1 hour time frame using only straws and masking tape.

Approximate time for completion:

- Total of 1.5 hours
- 15 minutes pre lesson
- 1 hour for building
- 15 minutes to measure towers

Tips for Teachers/EIRs:

Students need space to build on the floor. The room must be taller than 8ft. For safety purposes, the students cannot stand on chairs, desks or ladders.