

Tower Challenge #2

Name: _____ Class: _____ Date: _____

What's the tallest tower you can build using only four sheets of newspaper?

Here's the challenge: getting the newspaper to stand up, without using tape, staples, glue, or other materials. But you can bend, fold, or tear the paper itself.

What You Need

- 8 short sheets of newspaper
- ruler



Make a Prediction

Make a prediction about how tall a tower you can build. What is your prediction based on?

Try It Out

1. Now, working by yourself or with as many classmates as you want, construct your tower. If you think you can make it taller, keep redesigning it until you can't go any higher.

2. When you are finished building, measure the height of your tower. _____ cm

Explain It

How did your result compare to your prediction?

Give possible reasons for any difference.

What limited the height of your tower?

If you could use one other material to make your tower taller, what would it be?
Why?

Build on It

- How much taller can you make the tower if you can add 50 centimeters of tape?
(You can't tape the tower to the table.)

How tall can you make the tower and have it support the weight of a golf ball?

How well does your tower withstand environmental forces? Use a blow dryer to imitate wind gusts or shake the table gently to imitate an earthquake.

How can you change your design, using 4 sheets of newspaper and 50 cm of tape, to better withstand these forces.

Explain what dead and live loads are with respect to this and the other tower challenge we have completed.