

# Paper Tower



What's the tallest tower you can build with just 2 sheets of newspaper?

## What You Need:

- 2 sheets of newspaper
- ruler



## Engineering Scoop

How can you make a **weak** material like newspaper **strong** enough to stand up? One way is to **change its shape**, like rolling it into a tube, crumpling it, or pleating it with folds. You also need to think about the different **forces** that are acting on it. The tower's **weight** is pulling the tower down. The **surface** on which the tower is resting is pushing back up. Small **air movements** are also pushing from the side and can blow the tower over. If you build a **wide base** at the bottom, this distributes the weight over a wider area and makes the tower more **stable**.

**1 Build** the tallest tower you can. You can bend, tear, crumple, or roll the newspaper.

**2 Try** to make the tower **taller**. Keep **redesigning** it until you can't go any higher.

**3 Use** the ruler to **measure the height** of your tower. It must stand for at least **30 seconds** without falling over.

get your teacher when ready to test it

Sent in by Jen W. of Maple Springs, NY



How can you make your tower even **taller**? What happens if you add 20 cm (about 8 in.) of **tape**? What happens if you use **books** as a foundation to support the bottom of the structure? Or, what happens if you use a different type of **paper**, like tissue paper, copier paper, or cardboard? Choose one thing to change (that's the **variable**) and make a **prediction**. Then **test it** and **send** your results to ZOOM.



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# Paper Tower

Engineer's Notebook

## My Prediction

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## What Happened

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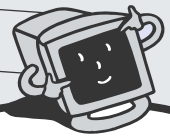
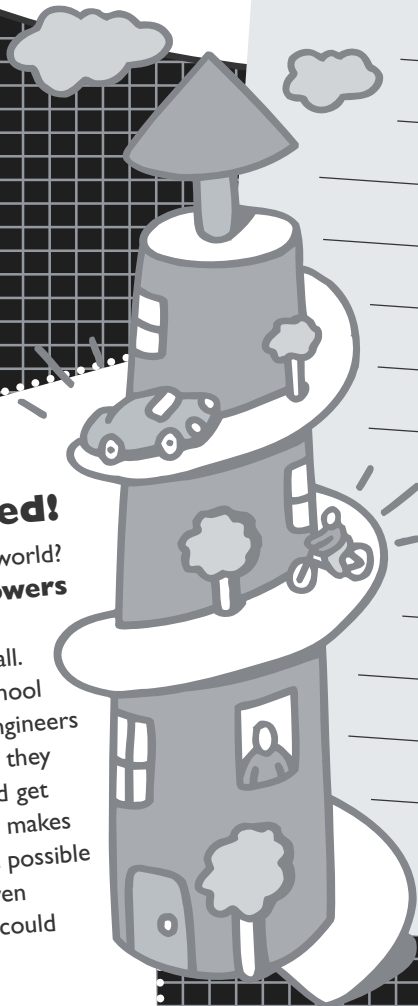
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### Engineers Wanted!

What's tallest building in the world? So far, it's the **Petronas Towers** in Malaysia. These matching towers are both 1,483 feet tall. (That's about as tall as 42 school buses placed end to end.) Engineers designed the towers so that they are wider at the bottom and get narrower near the top. This makes the towers very stable. Is it possible to make a building that's even taller? Engineers like **you** could make it happen!



**Send It to ZOOM™!**  
Tell us about your results at  
[pbskids.org/zoom/sendit](https://pbskids.org/zoom/sendit)