

ACTIVITY!

LAUNCH!

Most older roller coasters are pulled up that first hill. However, some newer coasters have pneumatic launch systems. That means a shot of compressed air launches the coaster up the hill. We're going to build a simple version of that with a straw that you blow through.

➤ **Cut out a rectangular piece of paper** about 6 by 3 inches.

➤ **Wrap it around the base of a pencil to form a tube.** Tape it together.

➤ **Tape over one end** of the tube, too.

➤ **Draw and cut out a roller coaster car.** Tape this to the closed end of the tube.

➤ **Slip the open end of the tube** over a straw.

➤ **Blow!** What happens?

➤ **The coaster should fly off.** The air from your lungs is pushing against the paper coaster to make it move.

PHYSICS KIT

- paper
- pencil
- tape
- straw



Pneumatics is being used in many different fields, including architecture and robotics! **Take a look at some of the things innovators are coming up with.**



🔗 Architecture lab pneumatic



Try This!

Experiment with the coaster design. Try making it sleeker and perhaps more rocket shaped. Does this allow the coaster to go farther? Why do you think this helps?