



## **TAKE AND MAKE:** Really Long Straw

Check out other ideas at: <https://ppld.org/kids/create/whats-new>  
The video instructions are available at: [tinyurl.com/PPLDVirtualSTEM](https://tinyurl.com/PPLDVirtualSTEM)

Materials Provided: 12 drinking straws, duct tape

Materials You Provide: Scissors, ruler, drinking glass filled with water, level surface that can get wet (or if not, something to protect it), sturdy chair to stand on

While sipping a drink through your straw seems fairly simple, it's actually a complicated process. As you sip, you are lowering the air pressure inside your mouth and the liquid is pushed up into your mouth.

In this activity, you'll experiment with the length of your straw. Are you able to create a long straw that actually works? What is the longest straw you can create and drink out of?

Let's get started and find out.

1. Cut 2 lengthwise slits in one end of each plastic straw. The slits should be about  $\frac{1}{2}$ " long. An adult can help with this if necessary.
2. Slip the cut straw end over the uncut end of another straw.
3. Cut the strip of duct tape into short  $\frac{3}{4}$ " strips.
4. Wrap tape around your joint so there is an airtight seal. (Why do you think it's necessary to have an airtight seal?)
5. Test your straw by placing the end of the straw into your glass of water. The glass of water should be on a level surface that can get wet. Try taking a drink. It's best to hold your straw vertically.
6. If you're able to drink, try adding more straws one at a time. Test after each addition.
7. If you're unable to drink, then check each connection to see if it's airtight. All holes will need sealed with your tape.
8. As your straw gets longer, you may need to stand on a chair to drink. You can also test your straw with different angles.
9. What is the longest straw that you created that worked?

