

Siphon Water With Suction and Gravity!

When your child's world is filled with complicated digital gadgets, simple mechanics can seem downright magical. This amazing way of using first suction and then gravity's work of pulling will fascinate your child as she tries to figure out how siphoning works.

While you're impressing her with your science smarts, you'll also be introducing her to the important concepts of suction and gravity. After this activity, your child may find the world a little less mysterious and a little more captivating.

What You Need:

- 2 clear, empty juice bottles (quart or gallon size so they won't tip over easily)
- 2-foot length of clear tubing (can be purchased at a hardware store)
- Water
- Food coloring
- Towels
- Bleach solution (1/4 cup bleach in a gallon of water)



What You Do:

1. Place one bottle on a relatively low surface (a chair or the floor, perhaps). Give your child the task of holding the empty bottle in place.
2. Fill one bottle halfway with colored water and put it on a table or other elevated surface. Put one end of the tube into the water.
3. Suck on the other end of the tube until water reaches your lips and then quickly put your thumb over the end and put it down into the empty bottle.
4. To make the water flow from the full bottle to the empty one, the end of the tube in the empty bottle must be lower than the end in the water.
5. Watch the water flow from the elevated bottle through the tube into the lower bottle. If it does not, it's probably because air got into the tube before the outgoing end was lower than the intake end. Try again and be sure that no bubbles get in the tube from the end in your mouth before you put it in the lower container. Practice!
6. Ask your child:
 - Does the water move up or down?
 - What makes the water move?
 - Does something push it? Pull it?
 - Who (or what) is doing the work to move the water?
7. Have your child try it! He may not be able to get a flow going, but she'll have fun trying.
8. Clean all tubes with bleach solution and rinse well before the next use.

With practice, your child will not only be a great little engineer — she'll also have a fantastic new trick to show off.

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