



Water Tower Activity



Ready to get started with this activity? To keep track of your progress, check off the instructions for each step below as they are completed. Make sure to check the box of the last step when you're done to receive congratulations for your completed activity!

Consider this: Have you noticed the large water towers placed around Clark County? They look like giant cylinders or even a little bit like space ships on metal legs. A water tower can hold about 50 times the amount of water as one backyard swimming pool. It may seem odd that the water towers reach so high into the air when all the water pipes are down in the ground, but the height helps to move the water through the pipes. Water towers use hydrostatic pressure, driven by gravity, to force the water down into the pipes and through the water system. The activity below will help to understand air pressure, gravity, and how they work to move water.

1. Gather Your Materials

- Balloon
 - Plastic straw
 - Plastic water bottle
 - Scissors
 - Bowl
 - Water
- Optional: caulk or waterproof glue*



2. Make a Hole

- Mark where the hole will go, make sure your straw will reach the bottom of the bottle.
- Make the hole with scissors — not too big, same size as the straw.





3. Add the Straw

Insert straw into the hole:

- Make sure the bottom of the straw goes all the way to the bottom of the bottle.
- Part of the straw will be outside the bottle, like a nozzle.
- Optional: seal the hole around the straw with glue or caulking.



4. Fill the Tank

- Fill the bottle with water, up to the hole.
- Place a bowl under the nozzle end of the straw.



5. Add Air Pressure

- Inflate a balloon, but do not tie the balloon off – just pinch it closed.
- Place the balloon over the neck of the plastic water bottle (where the cap goes).
- The balloon will start to deflate, filling the plastic water bottle with more air than it can hold.
- The change in air pressure forces the water out through the straw and into the bowl.



6. Things to Think About

- What happens if the water bottle is full of water, to the top, and the balloon is placed on top? This will only work if the hole around the straw is sealed.
- Does the balloon have to be inflated fully to move water out of the straw?
- Does the stream of water exiting the straw change as the balloon deflates?

