Clay Center

GALLERY EXPLORATION

ACTIVE LEARNING GUIDE

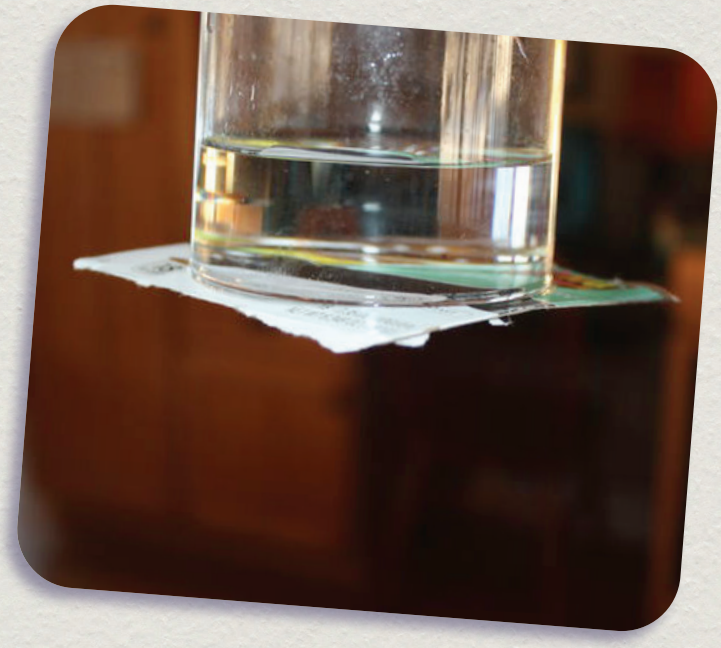
WATERWORKS

Floating Water

You might not realize but air pressure pushes in all directions around us. This air pressure causes aircrafts to slow down while they fly, and many engineers spend a lot of time designing solutions to air pressure. In this science experiment, you will be able to see how air pressure works. When you have the glass upturned, the air pressure will push up on the bottom of the card. This push is stronger than the pull down of the water in the cup and will keep the water in place.

What You Need:

- Glass of Water (Mason Jars work well)
- Postcard



Activity Steps:

1. Fill the jar with water up to the brim.
2. Place the postcard on top of the jar so that the glass is centered underneath the card
3. With one hand hold the jar and the other hand keep a light touch on the center of the postcard, just overtop of where the glass is.
4. In one quick and fluid motion, flip the jar upside down and remove your hand supporting the card. The water should stay inside of the jar without coming out.

Note: *Do this experiment over the sink as you might need a bit of practice.*

5. When you want to remove the card, flip the glass back over as before and pick it up.

If you would like to attempt the second experiment included in the video, stretch a piece of cheese cloth over top of a mason jar and then use the lid to seal the cloth in place. Follow the same steps as above but remove the card will it's still upturned. This takes a lot of practice, but the water should stay in place due to Cohesion which is a strong molecular attraction of the water molecules.