Upside Down Water Experiment

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short line

# Summary

All around you, water is always moving in a downward motion due to gravity. But what if there was something you could do to prevent water from falling like that? In this experiment, kids learn about the effect of surface tension and air pressure and how these work against gravity to keep the water in a glass, that is covered by a handkerchief, from spilling everywhere once flipped over. This experiment uses easily available household items like a handkerchief and glass of water.

# Materials

1. Water glass
2. Handkerchief
3. Water
4. Tray

# Procedure

Link to video instructions:

Written Out Instructions:

1. Take your handkerchief and place it on top of your water glass.
2. Then, push the handkerchief to the bottom of the water glass.
3. Pour water in the glass till it is about 3/4 full. Make sure the water is poured on top of the handkerchief.
4. Hold the handkerchief from the edges which are out of the water glass and gently pull it back so that the center of the handkerchief, which is in the glass, begins to rise up and water collects below it. The handkerchief should be stretched across the top of the glass.
5. Pull the remainder of the handkerchief around the glass and hold it tightly.
6. Position the tray in front of you and move the glass with the handkerchief on it above the tray.
7. Place your other hand over the handkerchief on your glass and flip the glass upside down.
8. Then, slowly pull away the hand that is on the neck of the glass, while still firmly holding the handkerchief tightly around the top of the glass with your other hand.

# Materials & Resources

<https://www.stevespanglerscience.com/lab/experiments/anti-gravity-water/>

<https://beta.iop.org/do-try-this-at-home-episode-2-waterproof-hanky>

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