

# Activity Sheet;

# Experience Gravity-free Water

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Do you think it's possible for water to stay inside the glass when held upside down? Bending the rules of gravity, you will need some cardboard and a little bit of air pressure.

## You will need:

- ✓ A glass filled right to the top with water
- ✓ A piece of cardboard

## Instructions:

1. Fill a glass with cold water
2. Put the cardboard over the mouth of the glass, making sure that no air bubbles enter the glass as you hold onto the cardboard.
3. Turn the glass upside down (over a sink or outside to start with)
4. Take away your hand holding cardboard

## What is happening?

If all goes to plan then the cardboard and water should stay put. Even though the cup of water is upside down the water stays in place, defying gravity! So why is this happening? With no air inside the glass, the air pressure from outside the glass is greater than the pressure of the water inside the glass. The extra air pressure manages to hold the cardboard in place, keeping you dry and your water where it should be, inside the glass.