

~ ASK MOTHER NATURE ~

Would you like a special Mother Nature Bookmark? Do you have a questions?

write to MotherNature@GrandLakeMountainProperty.com

or

Annie G

PO Box 573

Grand Lake, CO 80447

My Granddaughter, Olivia Anne was taking her bath and wanted to know why water poured out of her upside down cup when she lifted it out of the water.



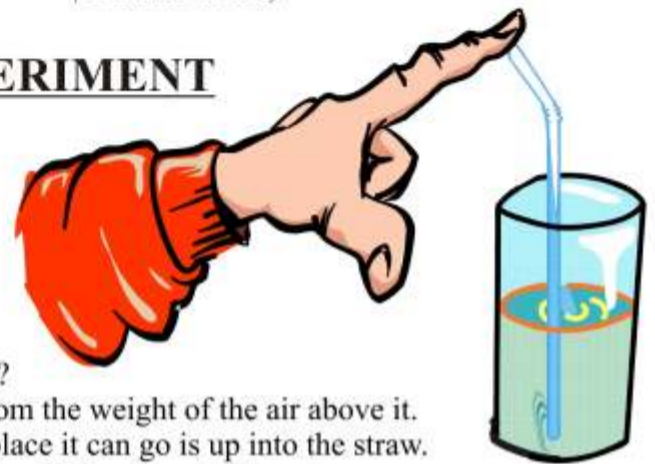
Olivia - This is why it happened. The air presses down on the top of the water and pushes some of the water up into the cup. When the rim of the cup goes above the water, the air no longer supports the water inside and it falls out of the cup.

Naturally Yours, Mother Nature
(Grannie Annie)



STRAW IN THE WATER EXPERIMENT

You will need:
A glass of water
A straw



1. Dip the straw in the water.
2. Place your finger on the end of straw that's out of the water.
3. While holding your finger on the end of straw, lift the straw out of water.
4. Do you know why the water stays in the straw and doesn't drip on the floor?
5. When you cover the end of the straw you "protect" the water in the straw from the weight of the air above it.
6. The air on the water around the straw pushes down on the water. The only place it can go is up into the straw.
7. This is the same thing as using a straw to get a drink. You use your mouth to pull the air out of the straw and the air (outside of the straw) on the surface of your drink pushes the drink into your mouth.

RIDDLE: WHAT'S INVISIBLE, BUT IT'S EVERYWHERE?

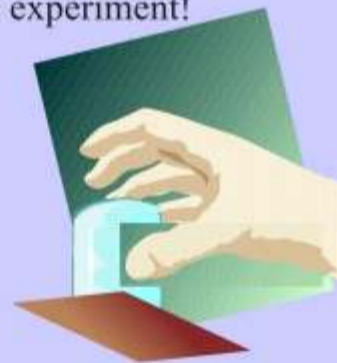
Answer: **AIR**



Let's try another air pressure experiment!

YOU WILL NEED

A glass
Piece of cardboard
Water
Sink or tub



HERE'S WHAT YOU DO:

Completely fill the glass with water.
Place a piece of cardboard over the top of the glass.
Turn the glass upside down over a sink, holding the cardboard tight against the rim of the glass.
Make sure there are no air bubbles inside the water glass.
Now remove your hand. Taa-daa!!!
The water should not spill out!

CAN YOU EXPLAIN WHY THE WATER DIDN'T SPILL?

The water stays in the glass because the pressure of the water *inside* the glass is less than the pressure of the air that pushes from the *outside* against the cardboard.

ARE YOU A SUCKER?

Try this

1. Fill a jar with water
2. Have an adult make a hole in the lid just big enough for a straw to fit through.
3. Put a straw through the hole.
4. Seal the hole with clay. Make sure it is sealed tight!
5. Try to suck water through the straw. What happens?



When you drink from an open glass of water, air pressure allows the water to travel up the straw. When you suck at the straw, you are essentially drawing air out of the straw. The outside air pressure is pushing down on the water which forces the water up the straw. But when you seal the jar lid, there is no air pressure to help push the water up your straw. The air can't get to the water to push on it, so it doesn't go up the straw. No matter how hard you suck, the water will not go up the straw.

Send your questions to:

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