

# At Home Experiment #1

## “You can pull water out of thin air!”

Water can be a gas (water vapor) that’s part of the air around us. You can’t see it, so how do you know it’s there? Try this.

You will need:

- a drinking glass
- water
- ice cubes



1. Fill a glass with ice and water.
2. Leave the glass sitting for about 15 minutes.
3. After time is up, look at the outside of the glass.
4. Touch the outside of the glass. What do you feel?

The tiny drops on the outside of the glass are water that has *condensed* from the air. After touching the cold glass, some of the water vapor in the air changed to liquid. What do you think will happen if you empty the glass and let it stand?

## At Home Experiment #2

### “You can make water ‘grow’!”

When water gets cold it turns into a solid form that we call ice. Does water turning to ice make it grow? Let’s find out!

You will need:

- a small cardboard milk carton (save one from your lunch at school)
- water
- a stapler
- a freezer

1. Clean the milk carton.
2. Fill it to the top with water.
3. Staple the top of the carton until it is closed.
4. Put the carton in the freezer overnight.
5. Look at the carton full of ice.



Is your carton full of ice – or more than full? Does frozen water take up more space than the water you started with? This is because when water freezes it expands and takes up more space than it did as a liquid.

# At Home Experiment #3

## You can be a “water investigator”!

See how much water a leaky faucet can waste in one day! Here is how you can find out if there are any leaky faucets in your house.

You will need:

- a faucet
- a watch or clock
- a piece of paper
- a pencil or pen
- a one-cup measuring cup
- a bucket
- a pitcher or watering can



1. Turn on a faucet in your house just enough to make it drip. (If there is a faucet in your house that really leaks, use that one.)
2. Write down the time you start the experiment.
3. Place a bucket under the dripping faucet.
4. Leave it there for one hour, then turn off the faucet and move the bucket away.
5. Fill a measuring cup by pouring the water from the bucket or dipping the cup into the bucket.
6. Empty the cup into the pitcher or watering can and then write down the amount of water you measured.
7. Keep pouring and measuring until the bucket is empty.
8. Count the number of cups of water. (If you lost count, repeat the pouring and measuring from the pitcher or watering can.)
9. Multiply the number of cups collected in one hour by 24 hours in a day. Look at the chart below to see how many cups of water make one gallon, then divide this number into the number of cups you collected to find out how many gallons of water the dripping faucet would waste in a day. Use the water in the pitcher or watering can to water flower beds or houseplants.
10. Check all of the faucets in your house or apartment (don't forget outside faucets!) to see if any of them leak

**IMPORTANT!** Talk to the adults at your house about getting leaky faucets fixed. Usually a faucet that leaks just needs a new rubber washer.

OUNCES	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128
CUPS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PINTS		1		2		3		4		5		6		7		8
QUARTS								1								2
GALLONS																1



# Water Trivia

For each numbered question (1-10) find the letter of the correct answer (A-J).  
Answers are at the bottom of the page.

1. How long can a person live without water? \_\_\_\_\_
2. How much water pipe is there in the US & Canada? \_\_\_\_\_
3. What were the first water pipes made of in the US? \_\_\_\_\_
4. How much water is used in a 5-minute shower? \_\_\_\_\_
5. How much water does one person use in a day? \_\_\_\_\_
6. How much of the earth's surface is water? \_\_\_\_\_
7. How much of the earth's surface water is drinkable? \_\_\_\_\_
8. Water freezes at what temperature? \_\_\_\_\_
9. Water boils at what temperature? \_\_\_\_\_
10. How much of the human body is water? \_\_\_\_\_

**A - Hollowed out logs**

**D - 66%**

**G - About a million miles**

**J - 50 gallons**

**B - 80%**

**E - 1%**

**H - 25-50 gallons**

**C - About 1 week**

**F - 32 degrees F, 0 degrees C**

**I - 212 degrees F, 100 degrees C**

**Answers: 1-C, 2-G, 3-A, 4-H, 5-J, 6-B, 7-E, 8-F, 9-I, 10-D**