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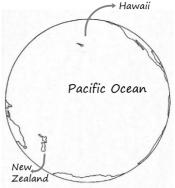
Water is the *only* thing on our planet that exists naturally in all three states of matter—as a solid, liquid, and a gas.



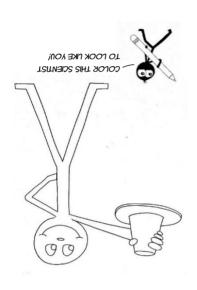
Gaseous water, or water vapor, is invisible. You can't see it, but it's in the air around you and we call it **humidity**.

incredible properties.

more about waters'



Oceans cover most of the planet, and so does another form of water: clouds.



blace the lid on top.

b) Put hand on top of lid and upside down).

c) Remove hand and be amazed!

:bon19N

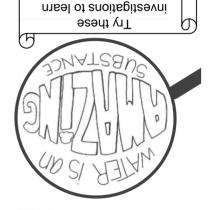
 Plastic lid, or a piece of cardstock or cardboard.

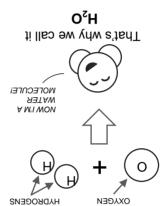
3) Four water in the cup and

Materials:

• Cup
• Water

1. Gravity Detying Lid





Water is one oxygen atom plus two hydrogens.

2. Magic Screen

Materials:

- · Jar with a metal ring
- A piece of screen or mesh
- Lid
- Water

Method:

- a) Fill jar to rim and secure screen on top.
- **b)** Cover with lid and invert.
- c) Remove lid and observe.

No jar? No problem. Use a cup and rubber band.

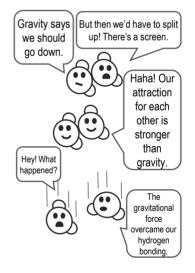




HOW DOES IT WORK?

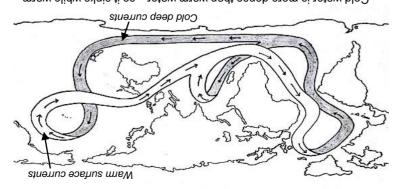
Cohesion! That means water molecules like to stick together.

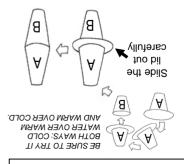
When you invert the jar those water molecules feel the tug of gravity, but their attraction for each other is strong enough they effectively form a "lid" on the bottom of the jar, just like the lid or cardboard did in the first investigation. If air can't get in, then water can't go out. So the water stays in the jar—until you tip or shake it. Then gravity wins.



circulates all the water in the oceans.

Cold water is more dense than warm water—so it sinks while warm water "floats" on top. This phenomenon drives thermohaline circulation in the oceans—a massive system of currents that slowly but steadily





c) Place a flat lid on one cup and invert it, then set it on top of the other cup.d) Slowly, slide the lid out from between the cups.

Add different colors of food coloring to each cup.
 D Fill each cup to the brim, one with warm water and the other with cold.

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Z identical clear cups
 Warm and cold water

Food coloring
 A flat lid or cardboard

:slaiterials:

3. Hot & Cold Cups