

Cloud In a Bottle

Materials Needed:

- Empty plastic water bottle with cap
- Scissors
- Isopropyl rubbing alcohol
- Safety goggles

Instructions

1. Use the scissors to carefully remove the label from the plastic water bottle.
2. Put on your safety goggles.
3. Pour a small amount of Isopropyl rubbing alcohol into the bottle.
4. Place the cap back onto the bottle.
5. Slowly rotate the bottle so that the alcohol coats the inside of the bottle.
6. Grab the bottom one third on the bottle and twist. This will create pressure in the bottle.
7. Release and watch your Cloud In A Bottle form!

Scientific Explanation:

The pressure that is created inside the bottle when twisting, forces the water vapor to compress together, heat up, and evaporate into a gas. When you release the pressure, the water vapor molecules cool quickly and condense to form a cloud.

Further Experimentation Suggestions:

Try the cloud in a bottle demonstration in areas that are significantly colder or warmer and record the noticeable differences.