

Temperature Inversion in a Jar!



What you need:

- Quart-sized jar
- Red and blue food coloring
- Tap water
- Salt (about $\frac{1}{4}$ cup)
- Measuring cup
- Funnel
- Plastic or rubber tubing that fits on the funnel

Steps:

1. Fill the jar a little less than half full with lukewarm water. Put 2 drops of red food coloring in and stir. The red water represents warm air, which is lighter/less dense than cold air.
2. Fill the measuring cup with water and salt, and then stir. Adding salt makes water more dense and heavy. Add two drops of blue food coloring. The blue water represents cold air, which is heavier than warm air.
3. Fit the tubing snugly to the end of the funnel. Make sure the tubing is on the bottom of the jar. Pour the blue water slowly through the funnel. When you are done, there should be two layers. Blue on the bottom and red on top. This is what happens during an inversion! The air is stable and the heavy and light air don't mix. This makes it easier for fog or pollution to concentrate in the heavier air.

