Bizarre Stuff You Can Make in Your Kitchen

Clouds in a bottle

This simple classic forms a little cloud in a bottle. You will need a large glass jar with a wide mouth, such as an industrial size pickle jar; a sheet of rubber (a balloon that has been slit open); a rubber band large enough to fit over the mouth of the jar; some chalk dust (or talcum powder); and some cold water.

Wash out the jar and put about an inch (25mm) of water in the bottom. Cover the mouth of the jar with the piece of rubber and cover with a book to hold it in place. After 10-15 minutes, remove the book and rubber from the jar. Drop in a spoonful of chalk dust or talcum and quickly replace the rubber over the mouth. Wrap the rubber band tightly around the rim to keep the rubber sheet firmly in place over the mouth. Push down on the rubber with your fist until it is depressed a little way into the jar. The air is compressed and warmed, so it is able to hold more water vapor. After 15 seconds or so, quickly remove your fist. The air will cool, and will not be able to hold as much water vapor. This excess vapor condenses around the chalk dust, forming a cloud inside the jar.

You can do the same thing with a jar or large bottle and a cork The cork needs to make a good seal, so give it a good soaking if it is dry. Put a little cold water in the jar. Cork the jar, and let it stand for 15 minutes or so. Remove the cork, quickly pour in a little talcum powder or chalk dust, and re-cork. Push the cork farther into the jar. This increases the air pressure, warming the air inside. After 15 seconds or so, pull the cork a little bit of the way out (but not all the way - you need to keep the seal). The pressure drops, the air cools, and the excess water vapor condenses on the tiny particles of powder in the air.

Fog in a bottle

Creating fog in a bottle, as in the photo at the top of this page, is a simpler matter. A large jar or wide mouthed bottle is filled with hot water. All of the hot water is poured out except for an inch (25mm) or so at the bottom. A strainer is set over the mouth of the jar, and ice cubes are placed in the strainer. Before too long the cold air from the ice cubes will cause the water to condense from the warm, moist air in the bottle, forming fog.

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