

Rain Cloud in a Jar

How Clouds Form!

Evaporation from sources of water is one step required for cloud formation. As this moisture is lifted high up in the atmosphere, it cools and condenses into clouds. Clouds are composed of many liquid water droplets and ice crystals. However, sometimes when a cloud receives too much evaporation, it becomes heavy from the weight of the water droplets and ice crystals. Eventually, the heavier droplets will find their way through the cloud and fall all the way to the surface as rain.

The Experiment

The Rain Cloud in a Jar Experiment will attempt to simulate this process. Here, we will try to create our own cloud and make it heavier by adding more liquid to it. Based on our understanding of how rain forms, we should expect to see this added liquid pass through the cloud.

Materials

1. Water
2. Food Coloring
3. Glass Mason Jar
4. Shaving Cream
5. Dropper or Pipette

Getting Ready for the Experiment

1. In a small bowl, mix food coloring with some water
2. Fill glass jar about 2/3 full of water
3. Spray shaving cream on top water to create cloud
4. Add drops of colored water to the top of the cloud
5. Wait and make observations!

