

Rain Clouds

The Project

In this experiment, we will make food coloring “rain” fall from a shaving cream “cloud.”

Materials

Clear plastic or glass cup

Water

Shaving cream

Food coloring

Steps

1. Fill the cup three quarters full with cold water.
2. Spray shaving cream on top, covering the water completely with a thick layer of shaving cream.
3. Add a few drops of food coloring to the top of the shaving cream. Watch what happens in the cup.

The Science

In this project, we simulated a rainstorm by using shaving cream as a cloud, water as air, and food coloring as precipitation. When the food coloring “precipitation” fills the shaving cream “cloud,” it becomes heavy. Finally, the “cloud” gets so heavy that the food coloring “rains” down into the water. This process is just like how a rainstorm happens in real life. The molecules in the cold water move slowly, so the food coloring “rain” spreads slowly throughout the water. If

you would like to try a variation of this experiment, substitute the cold water for warm water, and see what happens.

Reference

Miller, R., Homer, H. & Harrington, J. (2016). *The 101 coolest simple science experiments*. Page Street.