



TOUCHABLE RAIN CLOUDS Learn what it takes to make a rain cloud.

Materials

- Shaving cream
- Dropper
- Large clear container
- Small cup or mixing bowl
- Food coloring
- Water

Sometimes water doesn't even make it off the ground, creating dew. If you see dew, it means there is wind in the upper layers of the atmosphere and the weather will be going through some changes. What happens to dew when it is cold outside? The dew becomes frost!



Procedure

- Fill a clear container with water. Fill cup with water and add a few drops of food coloring. Make sure the dyed water is vibrant and not too diluted.
- Use shaving cream to make "clouds" on top of the water. Try making different types of clouds like stratus (long and thin) or cumulus (fluffy mound).
- Use the dropper to drip colored water onto your clouds one drop at a time. How many drops did it take for the clouds to start "raining?"

Results

The larger the cloud, the more water it will take to make the cloud rain.

Why?

Each cloud has a saturation point, or a point at which it cannot hold any more water. When the cloud cannot hold more water, the water falls as rain. We recreated this by adding drops of water to our shaving cream clouds. When they were saturated and couldn't hold anymore water, the water dripped through the bottom and into the container.

Water is all around us, even in the air we breathe! As water rises into the atmosphere it forms clouds. The water in the clouds condense and form rain or snow! Rain and snow are forms of precipitation. Precipitation is a term meteorologist use so we should use it too!