Mad Scientist-to-Go

CLOUDS IN A JAR!

photo credit: Kidspot

With this simple experiment, you can learn about how rain clouds work---without getting soaked!

MATERIALS:

- A large, clear jar or cup (Plastic or glass--a mason jar would work well.)
- Shaving cream (not the gel version)
- Food coloring or liquid watercolors (Blue is closest to water, but feel free to use whatever color you want!)
- Water
- Pipettes or eyedroppers

CLOUDS IN A JAR

INSTRUCTIONS:

- In a separate container, combine your food coloring or liquid watercolors with water.
- Fill your main jar 3/4 to the top with water.
- Spray shaving cream into the jar, so that it sits on top of the water and fills up the last 1/4 of the jar.
- Before you add the colored water, write down (or draw) what you think will happen on a separate piece of paper.
- Slowly add the colored water on top of the shaving cream. This is best done with a pipette, but if you don't have one, try slowly adding the water with a spoon.
- After you add enough, you should start to see the colored water coming through. Your cloud in a jar is raining!
- Write down what you see (or observe) in the jar. Is it different from what you thought was going to happen?

photo credit: Fun Learning for Kids

HOW DOES IT WORK?

This experiment is a model of how real clouds work! Real clouds in the sky are made up of tiny droplets of water. Over time, the amount of water droplets in a cloud builds up. Much like our experiment, clouds will eventually become *saturated* (or completely filled) with water, and will need to release the extra water. This is why the colored water seeps through the shaving cream in your jar, and why rainclouds exist!

Visit our electronic resources on the library catalog for more Mad Science fun!

- For more experiments and explanations of clouds, visit Explora for Grades K-8 and search "clouds."
- For fun books about science, visit TumbleBooks and search "science."
- For a short video about clouds, visit TumbleBooks and use the title search to find "Identifying Clouds."

This experiment was inspired by a project highlighted on The STEM Laboratory's website: www.thestemlaboratory.com