

Do you love science? I do, too. This is a fun experiment to make your own cloud, just like the cloud in Secret in the Stars, only you can make yours any color you want with food coloring. When you're done, check out the website <http://coolscienceexperimentshq.com> for lots more fun science experiments that you can do at home or in school.

How Does the Experiment Work?

- Clouds form when water vapor rises into the atmosphere and then condenses onto microscopic particles (i.e. dust, dirt and other particles in the air).
- In our experiment, the warm water in the jar caused the air inside the jar to heat up. When this happened some of the water evaporated into the air. This evaporation caused water vapor in the jar.
- Then the warm moist air (water vapor) rose from the surface of the water to the top of the jar. Once it reached the top of the jar, the warm moist air then began to cool down. This is because of the ice that was on the lid of the jar.
- The water vapor in the cooling air then condensed onto the particles of hairspray and formed a cloud in the jar.
- If you observe the cloud carefully, you'll noticed that it swirls around in the jar. This swirling is caused by the circulating air (i.e. warm air rising and cold air sinking).

I hope you enjoyed the experiment. Here's some printable instructions.

A printable copy is available on the website.

Make a Cloud Science Experiment



Materials

- Glass Jar with a Lid (we used a pint mason jar)
- 1 cup Hot Boiling Water

- Blue Food Coloring (optional)
- Aerosol Hairspray
- 3-5 cubes of Ice

Instructions

1. Pour 1 cup of hot boiling water into a glass jar. Helpful Tip: Use food coloring to dye the water blue before pouring it into the jar. This is not required, but does help distinguish the cloud from the water. Plus, it makes the water look like the sky.
2. Quickly spray hairspray into the jar.
3. Immediately put the lid onto the jar. Helpful Tip: This step must be performed quickly, so have the lid handy. It also helps to have multiple people doing the experiment. One to spray the hairspray and one to put on the lid.
4. Place a 3-5 pieces of ice on top of the lid of the jar.
5. Watch the top of the jar carefully and you will see a cloud begin to form.
6. After observing the cloud in the jar, remove the lid and watch the cloud escape out of the jar.

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<http://coolscienceexperimentshq.com/make-a-cloud-form-in-a-jar/>

In addition to creating your own cloud and learning about how clouds form in the atmosphere, click on the website below for the chart to explain the different types of clouds and where they form in the sky.

<https://scied.ucar.edu/learning-zone/clouds/cloud-types>

Here is the link for the video:

[Details How to Make a Cloud Experiment Step by Step Instructions Video](#)