Hands-On Science at Home | Issue 5

Cloud in a Jar

How do clouds form?

Have you ever imagined that you could catch a cloud? Let's see if we can make a small cloud in a jar!

Things You Will Need

A jar with a lid, hot water, ice, and hairspray





Steps

- 1. Pour hot water into the jar and swirl it around to warm up the whole jar.
- 2. Place the lid upside down on the top of the jar.
- 3. Place several ice cubes on the lid and leave them about 20 seconds.
- 4. Remove the lid and give a quick spray of hairspray into the jar.
- 5. Replace the lid with the ice still on top.
- 6. Watch how the cloud forms in the jar!
- 7. When you see enough condensation formed, remove the lid and watch the cloud escape into the air!

Takeaway

Three things are needed to make a cloud: warm moist air, a cooling process, and something to start the cloud such as dust particles or pollen or ashes, etc. When you add the warm water to the jar, it turns to water vapor. The water vapor rises to the top of the jar where it meets cold air, thanks to the ice cubes on top. Water vapor condenses when it cools down. The water vapor condensed onto the hairspray to form a cloud!

