



Clouds in a Jar

What you need:

- Glass jar with a lid
- 1 cup of boiling water
- Blue food colouring
- Hairspray
- Ice cubes

Instructions:

1. **Check with an adult before starting this activity – you may need help to do it safely.**
2. Add some food colouring to your hot water.
3. Pour the coloured hot water into your glass jar. Make sure the lid is nearby – you'll need it soon!
4. Quickly spray hairspray into the jar.
5. Immediately put the lid on the jar.
6. Place ice cubes on top of the jar lid.
7. Watch the top of the jar carefully. You will see a cloud begin to form!
8. After observing the cloud in the jar, remove the lid and watch the cloud float away.

How do clouds form?

In the sky, our atmosphere needs three things to make a cloud:

1. Warm, damp air
2. Cooling (which causes the moisture to rise)
3. Cloud condensation nuclei (which are very small particles that can float in the air and help water vapour condense into clouds)

What happened in my jar?

Pouring hot water in the jar created warm, damp air. As the air rose, it was cooled by the ice on the lid. The hairspray acted as cloud condensation nuclei and gave the water vapour a surface on which it could to condense into clouds!

Explanation adapted from kidspot.com.au

