

science experiment...

Frost in a Jar

Did you know? The air around us **contains** water particles. When the air cools, these water particles become too heavy, so they turn to liquid and build up as droplets or **condensation** on a **surface**.

Frost is a thin layer of ice that forms on a surface. It is created when the temperature of the air is just above freezing, while the surface of the object is slightly below freezing. When the water particles from the air come in **contact** with a freezing surface, it causes them to change to ice, forming a thin layer of ice crystals.

questions:

- What is frost? What time of year are we most likely to see frost?
- Have you ever seen frost before? What types of surfaces are most likely to have frost form on them?
- Explain how frost is formed in your own words.
- Create a sentence for each of the following words: *contains, condensation, surface, contact*

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Frost in a Jar

Materials:

- Two glass jars
- Cup of ice
- Food coloring
- Salt
- Water
- Marker



Directions:

- Add some food coloring (optional) to your water and set it aside.
- Use a marker to label each jar with a number. Then, fill each jar with ice, leaving a little room at the top.
- Jar #1: Add a half-inch layer of salt.
- Jar #2: Do not add any salt.
- Next, pour some water into each jar until they are mostly filled.
- Wait one minute and observe what happens to the ice in both of the jars.
- Put a lid on each jar and shake for 30 seconds.
- After about 3 minutes, you should see a thick layer of frost begin to form on the outside of your jar(s)!
- Discuss your observations! Which jar resulted in more frost? Why do you think so?