

Super Fast Ice Cream

If you love ice cream you'll really love making it in just 3 minutes!

WHAT TO DO

Take a cup of milk/cream mixture and a popsicle stick. Wait for an adult to give you a teaspoon of liquid nitrogen. Carefully poke a few times with your stick and slowly stir until the fog stops, then get another teaspoon. Soon you'll have ice cream.

WHAT'S HAPPENING?

The nitrogen in the bowl is exactly the same nitrogen in the air you breathe, but, like any gas, if cooled to a very low temperature it will condense into a liquid. For nitrogen this temperature is -322°F , about as cold as it is on Jupiter, and much colder than anyplace on Earth! Notice the vigorous bubbling; since the room is much hotter than -322°F , the liquid boils rapidly, turning back into gas. The liquid nitrogen is so cold it cools your milk/cream mix- just like ice cubes would- but MUCH faster! After 4 or 5 teaspoons your liquid cream should freeze into solid ice cream, but be sure to keep stirring so it will be smooth and creamy (and poke holes in the ice cream as it becomes solid to let the nitrogen mix thoroughly). The boiling nitrogen actually freezes milk, proving that boiling doesn't necessarily mean hot. Even though the liquid nitrogen becomes gas it's still very cold, so as it mixes with air it cools and condense water vapor, forming a cloud or fog in your cup. Once this fog evaporates all of the nitrogen has boiled away, and your ice cream is safe to eat.