

Dippin' Dots

Make your own Dippin' Dots ice cream- if you have the right stuff!

WHAT TO DO

Draw some of the milk/cream mixture into a pipette, then slowly drip one drop at a time into the bowl of liquid nitrogen where it freezes instantly, making tiny ice cream balls! ***Warning- never put your fingers into the bowl or they will quickly freeze too!***

WHAT'S HAPPENING?

The nitrogen in the bowl is exactly the same nitrogen in the air that you breathe, but like any gas, when cooled to a very low temperature it will condense into a liquid. For nitrogen this temperature is -322°F (-196°C or 76K), about as cold as it is on Jupiter, and much colder than anyplace on Earth! Notice the vigorous bubbling; since the room is very warm the liquid nitrogen boils rapidly, turning back into gas. But boiling doesn't always mean hot. This bowl of boiling liquid is still -322°F , ***so cold it can quickly freeze just about anything you put in- including your hands- so keep them away!*** Because the milk/cream droplets are very small, they will freeze into tiny ice cream balls the instant they touch the liquid nitrogen. That's how real Dippin' Dots are made. ***Another warning- these Dippin' Dots are extremely cold at first (remember the nitrogen is -322°F !), so let them warm up at least 2-3 minutes (gently blow into the cup) until you no longer see your breath before testing one dot on your tongue to make sure it doesn't stick!***