

HOW DO I MAKE...

Ice Cream

explore
& more

THE RALPH C. WILSON, JR.
CHILDREN'S MUSEUM



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We are continuing our Birthday Celebration today by teaching you how to make your very own Rock Salt Ice Cream! This recipe tastes just as delicious as store bought ice cream and you can still add all your favorite toppings!

MATERIALS

- 5 cups of ice
- 1.5 cups of milk
- 1/4 - 1/2 cup of salt
- 1-1/2 tbsp. sugar
- 1/2 tsp vanilla extract
- 1 gallon sized zip lock bag
- 1 sandwich bag
- towel / oven mitts

HOW LONG WILL
THIS TAKE TO DO?

10-15 minutes



ACADEMIC SUBJECT(S):

Cooking/Science
Supports P-PS1-1. Ask questions and use observations to test the claim that different kinds of matter exist as either solid or liquid.

DIRECTIONS

STEP 1 In the sandwich bag combine milk, sugar, and vanilla. For this step you can swap out vanilla with different extracts such as almond or strawberry. Push out all the excess air and seal the bag shut.

STEP 2 Fill the large bag with ice and salt. It doesn't have to be quite five cups of ice, as long as the bag is partially full. Then place the sandwich bag on the inside of the ice bag. Seal the ice bag shut.

STEP 3 Grab a set of oven mitts or a towel to wrap the zip lock bag with. The bag is going to get really cold!

STEP 4 This step will take some patience but is a lot of fun. The zip lock bags need to be shaken for seven to ten minutes straight. Set a timer for seven minutes and take turns shaking the bag for as long as you can. At seven minutes, check the bag to see if the milk feels like ice cream. If it's still a little soft, keep shaking for a few more minutes! (Just be careful that both zip lock bag stay shut.)

STEP 5 Once the milk feels like ice cream, take the sandwich bag out. Carefully scoop the ice cream out into a bowl and enjoy with your favorite toppings!

Now let's go over the science behind this. Every winter when plows come, they drop salt on the streets. They do this to help melt the ice, so the streets aren't slippery. An amazing reaction just like that happens in our ice cream bags. As the salt is trying to melt the ice, it draws energy from the milk. As this happens, the temperature of the milk begins to drop and eventually freezes while the salt is still trying to melt the ice.

COOL FACTS ABOUT ICE CREAM

Before freezers and fridges ice cream could not be stored, so ice cream had to be made right on site. When George Washington was president ice cream and sorbets were taking the world by storm! To the point Washington spent over \$200 on ice cream over the summer. This would equal about \$5,000 today!

VOCABULARY

MATTER: Anything that has mass and can take up space. Matter comes in three forms, solid, liquid, and gas. In this experiment our milk goes from a liquid into ice cream which is a solid.

FREEZING POINT DEPRESSION: The technical term for what happens in this experiment. This phenomena occurs when we add salt to the ice. Salt has a lower freezing point so it causes the ice temperature to drop by a few degrees. This keeps the small amount of water in the ice from refreezing, so the salt slowly eats away at the ice, melting it.