

FULTON FRESH KITCHEN SCIENCE

Ice Cream in a Bag

Try out this science experiment that has a yummy result!

SAFETY FIRST! Youth should always have parent supervision when preparing recipes. Make sure to wash your hands with warm soap and water for at least 20 seconds before preparing food or cooking..

INGREDIENTS

- 1 plastic sandwich bag
- 1 plastic gallon bag
- 1 Tbsp sugar
- 1/2 cup milk, half & half, or cream
- 1/4 tsp of vanilla extract
- 2 Tbsp rock salt or table salt
- Ice cubes



INSTRUCTIONS

1. In the sandwich bag, mix the milk, sugar and vanilla extract. Push out the extra air and tightly seal. It is helpful to put the bag of milk mixture within a second sandwich bag to make sure none of the ingredients leak out.
2. Fill the gallon bag about 3/4 with ice cubes. Sprinkle the rock salt on top and mix.
3. Place the sealed bag with the milk mixture in the bag with the ice and salt. Seal the gallon bag.
4. Now for the fun! Shake, roll, and wiggle the bag for 10 - 20 minutes until the milk mixture is frozen. You may want to do this outside because as the ice melts it may leak out of the bag.
5. Enjoy! Add your favorite toppings and enjoy your homemade ice cream! You can also add your favorite fruit, cocoa powder, peppermint extract, and other flavorings to the bag for different flavors of ice cream. Get creative!

SERVING SIZE

One baggie of ice cream equals one serving.

This recipe is adapted from <https://www.geniuskitchen.com/recipe/kid-friendly-activity-ice-cream-in-a-baggie-196267>

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What do you call a cow in an earthquake? A Milkshake!

DID YOU KNOW?

So what's going on here? Why is the salt added to the ice cubes? The milk which makes up the ice cream freezes at a lower temperature than water. The fats and sugar naturally found in milk interfere with the formation of ice crystals, so it takes a lower temperature for it to freeze. If we used just ice, the ice would melt before the ice cream forms. That's where the salt comes in! Salt interferes in the freezing process for water, and lowers the temperature that water freezes at as well. The salt/ice mix allows the temperature to remain low long enough for the milk to freeze. Pretty cool!

LEARN MORE

Looking for more food science activities? Check out Pennsylvania State University's resources at <https://foodscience.psu.edu/youth>.

CAREER CONNECTION

There are many careers related to the dairy industry including animal scientist and food scientists. Food scientists do a variety of tasks - everything from creating new food products, to working in restaurants, to working as nutrition educators!

Visit our website or social media channels for a follow-along video of how to prepare this recipe.

www.ugaextension.org/fulton

Share a picture of your experiment with us on social media with the hashtag #localfoodmadefun.

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