

Ice Cream in an Instant

Looking for a good and tasty way to teach students about the dairy industry, nutrition and even a bit of chemistry? Here are a few quick and easy ways to make ice cream right in the classroom.

Ice Cream in a Baggie

1/2 cup of milk or half and half
1 tablespoon of sugar
1/4 teaspoon of vanilla

Put ingredients in a sandwich size Zip-Lock bag and “zip” closed.

The filled and closed sandwich bag from above
2 tablespoons of rock salt
crushed ice cubes

Put these ingredients into a gallon size Zip-Lock bag. Shake and roll until frozen (about 15 – 20 minutes)

Ice Cream in a Coffee Can

Ingredients

1 small (12 oz.) coffee can with tight fitting lid
1 large (39 oz.) coffee can with tight fitting lid
1 cup whole milk
1 cup heavy whipping cream
1/2 cup sugar
1/2 teaspoon vanilla
pinch of salt
rock salt
crushed ice cubes

Directions

Pour the whole milk and cream into a large bowl and stir.
Add sugar, salt and vanilla to the mixture and mix well.
Add any optional ingredients.
Pour mixture into the small coffee can, fill until 2" from top.
Snap on lid, seal with tape to reduce leaks.
Put the small can inside the large can.
Surround the small can with about 1 ½ cups of crushed ice.
Add a couple of handfuls of rock salt to the ice.
Fill the can, alternating ice and rock salt.
Place the lid on the large can. Seal with tape to prevent leaks.
Tell the kids to keep the can rolling, pushing the can to each other on the sidewalk for about 20 minutes.

Ice Cream using Liquid Nitrogen

This method makes good ice cream for two reasons: 1) The mix freezes very quickly, so you get small crystals and a very creamy texture and 2) the evaporating LN2 aerates the mixture so it doesn't end up as a frozen lump.

Recipe for ½ gallon of strawberry ice cream

Cream base

4 cups of heavy cream

1 ½ cups half and half

1 ¾ cups sugar

Berry mixture

1 quart fresh strawberries, mashed

½ cup sugar

Directions

Keep all ingredients cold! Make sure the sugar is dissolved in the cream base. Pour the cream base into a large metal bowl. Add one or two liters of liquid nitrogen and stir vigorously. When the cream has thickened, add the berry mix and more nitrogen, if necessary. Continue to stir until the nitrogen has evaporated (the fog has disappeared)

This recipe does not keep well and is best consumed immediately (oh, darn). If it begins to melt, add more nitrogen and stir.