

# “shake the bag” ice cream

From: *Science in a Scoop*

## ingredients:

- ½ cup half & half
- 2 tsp vanilla
- 2 tsp sugar
- ¼ cup kosher salt
- Ice
- 1 gallon-sized zipper sealed plastic bag
- 1 sandwich-sized zipper sealed plastic bag

## \* ice cream flavors:

Add 1 tsp of cocoa powder, chocolate syrup, or your favorite jam to make fun flavors of ice cream!

## directions:

1. Pour half & half, vanilla, and sugar into a sandwich-sized bag. Seal tightly and set aside.
2. Fill gallon-sized plastic bag half way with ice cubes and add kosher or coarse salt.
3. Place ice cream batter bag inside the large bag and seal tight. Shake carefully until the ice cream is frozen (should take less than 10 minutes).

## storage:

Because we are using fresh ingredients and NO preservatives, we recommend you eat the ice cream immediately. It will last a few days in the freezer in an airtight container, but might lose

## science moment!

So, why are we using salt to help freeze our ice cream? Milk freezes at a lower temperature than water. When the temperature drops, the water molecules lose heat energy and slow down. They get closer and closer until they make a solid. Our salt molecules get in the way of the water molecules. This makes it harder for the water molecules to line up to freeze, thus causing our temperature to lower.

In order for our ice cream to freeze, our ice cream will need to reach 27°F. With the salt and ice, the Kitchen Theater has lowered the temperature to 1°F!