## Science Saturday @ Home loe Cream In A Bag



## Gathering Supplies:

Whole Milk, Half and Half, or Whipping Cream 2 Zip-lock Plastic Bags (1 large \& 1 small) Salt (lice Gream or Rock Salt works best)

Measuring Spoons Lots of lee Cubes

## How To Steps:

Find out the importance of salt in making this yummy ice cream in a bag.

1. In the small zip-lock bag add 1 cup half and half. The higher the fat content of the dairy, the creamier and richer the ice cream will be.
2. Add 1 tsp vanilla extract and $2-3$ tsp of sugar. Max added some diced strawberries to his too. Close the bag, making sure to get some of the extra air out. Make sure the hag is closed tightly! You can also tape the top part of the bag to make sure that it doesn't leak.
3. Place about 4 cups of ice into the large bag and then place the smaller bag on top of the ice. Fill the bag with another 4 cups of ice.
4. Add about $1 / 2$ cup of any type of salt to the ice. Max used a coarser rock salt.
5. Seal the large bag and start shaking for 7 to 8 minutes. If you get tired pass it to a friend.
6. The bag of ice will get very, very, cold so you will need to probably wrap it in a towel or use kitchen gloves when shaking.
7. When you're done shaking, take the small bag out and run it under cold water to rinse any salt water off of the outside before opening it.
8. Enjoy your cold frozen treatll

## Making Frozen Ice Cream With Max:



## Did You Know?

Why is salt important in making ice cream?
Water's freezing point, when it turns from a liquid to a solid, is 32 degrees Fahrenheit. Ice's melting point, when water turns from a solid back into a liquid, is just a tiny bit above the same temperature. Adding salt will lower water's freezing and melfing points as much as 20 degrees!

The cream in ice cream will only freeze at a temperature that is lower than water's freezing point. Mixing the salt into the ice lowers the melting point of the ice around the cream mixture. This keeps the ice frozen and lowers the temperature of the cream mixture until it freezes and becomes ice cream!

Just don't get the salt from the ice into your ice cream! Yuck!
Salt's ability to lower water's freezing point is also why salt is put onto roads during cold winter weather. The salt helps to melt the ice and snow, then stops it from refreezing even if the air temperature gets to below 32 degrees!

