Scream for Ice Cream

Objective
To investigate the chemistry of ice cream by creating your own.

What You Need
- 1/2 cup whole milk (skim or 1% don’t work as well).
- 1 Tablespoon sugar
- 1 teaspoon vanilla extract, chocolate syrup, or any other flavor you like
- 1 spoon
- 1 small Zip-Lock bag
- 1 larger Zip-Lock bag
- 2 cups of crushed ice
- 6 Tablespoons of regular table salt

To Do and Observe
1. Combine the milk, sugar, and flavoring together in the small zip lock baggie, seal it and shake it a few times so everything is well mixed.
2. In a bigger zip lock baggie, add the crushed ice and table salt.
3. Put the smaller baggie into the bigger baggie that has the salt and ice in it. Seal the bigger baggie.
4. Gently squish the two baggies together for about 5-10 minutes.
5. As you do this, watch how the milk mixture is binding together. It is up to the ice cream creator (you!) to decide on how thick the ice cream will be. The longer you squish it, the thicker it will be. So, you can decide when the ice cream is ready!

**What's Going On**
The salt we add to the ice creates salt water which is actually colder than ordinary water. In other words, salt water has to get colder than 32 degrees F (or 0 degrees C) before it will freeze. In this case, the milk is like regular water and freezes when surrounded by the colder salt water. This allows the ingredients to mix together so they form ice cream.

**Parent/Teacher Tips**
Encourage your child to think about what might happen if you just used regular ice instead of the 'salt water' ice to make your ice cream. Or if it would turn out the same if you just put your mixture in the freezer instead of squished it.