



Ice Cream

You will need:

150ml cream, 2 desert spoons castor/icing sugar,
1 tsp vanilla/raspberry/ peppermint/orange essence,
2 trays of ice cubes, 10 desert spoons salt, 1 medium sized zip-lock bag,
1 large sized zip-lock bag, tea towel or oven mitt, few drops food colouring

What to do:

1. Add cream, sugar, flavouring and colouring into the medium sized zip-lock bag. Be sure to zip up the bag securely first (get rid of as much air as possible).
2. Place the ice into the larger zip-lock bag and cover with the salt.
3. Place the sealed medium bag containing the cream mixture inside the larger bag on top of the ice and salt and zip up the bag securely.
4. Shake and massage the bag for five to ten minutes or until the mixture becomes the consistency of ice cream. You might like to wrap the bag in a tea towel or wear oven mitts while you're shaking as it can get very cold!
5. Once ready, remove the bag of ice cream and give it a wipe to remove the salt from the outside of the bag. You now have your own homemade ice cream.

Take it further:

Try setting up a control with just ice and no salt, what happens to the cream?
Why during extremely cold weather are salt and grit applied to roads?

The Science:

When salt is mixed with ice it makes the ice melt as it lowers the freezing point of the ice, this is known as **freezing point depression**. The more salt you add the lower the freezing point. For the ice to melt, heat must be absorbed from the surroundings (in this case the cream mixture) causing it to freeze.