CREST BRONZE AWARD INVESTIGATION PLANNER!

TOPIC
WHAT WILL YOUR PROJECT BE ABOUT?

Ice cream

QUESTION
WHAT DO YOU WANT TO KNOW ABOUT YOUR TOPIC?

Which ice-cream tastes better? Bag or machine

AIM
WHAT DO YOU WANT TO TEST?

Which tastes better homemade or store bought.

VARIABLES
MAKE SURE THAT YOUR TEST IS A FAIR TEST

- You will need to think about what you will CHANGE, MEASURE and KEEP THE SAME in your test.

Independent Variable (the one thing that I will change)	Dependent Variable (what I am measuring)	Controlled Variables (what I will keep the same)
The type of ice-cream homemade or store bought	The difference in taste	Ingredients
		Recipe

HYPOTHESIS
PREDICT WHAT YOU THINK WILL HAPPEN

We believe that the homemade ice-cream is going to taste better than the bought.

MATERIALS/EQUIPMENT
WHAT WILL YOU NEED TO PERFORM THE TEST? (INCLUDE QUANTITIES)

1/2 Cup milk

1/2 Cup whipping cream (heavy cream)

1/4 Cup sugar

1/4 Teaspoon vanilla or vanilla flavoring (vanillin)

1/2 to 3/4 Cup sodium chloride as table salt or rock salt

2 Cups ice

1-Quart Ziplock bag or another zipper-top baggie

1-Gallon Ziplock bag or another zipper-top baggie

Measuring cups and spoons

Cups and spoons for eating your treat!

MATERIALS/EQUIPMENT
WHAT WILL YOU NEED TO PERFORM THE TEST?

1/2 Cup milk

1/2 Cup whipping cream (heavy cream)

1/4 Cup sugar

1/4 Teaspoon vanilla or vanilla flavoring

1-Quart Ziplock bag or another zipper-top baggie

1-Gallon Ziplock bag or another zipper-top baggie

Cups and spoons

MATERIALS/EQUIPMENT
WHAT WILL YOU NEED TO PERFORM THE TEST?

Gloves

METHOD
WHAT WILL YOU NEED TO PERFORM THE TEST?

Procedure

Add 1/4 cup sugar, 1/2 cup milk, 1/2 cup whipping cream, and 1/4 teaspoon vanilla to the quart zipper bag. Seal the bag securely.

Put 2 cups of ice into the gallon plastic bag.

Use a thermometer to measure and record the temperature of the ice in the gallon bag.

Add 1/2 to 3/4 cup salt (sodium chloride) to the bag of ice.

Place the sealed quart bag inside the gallon bag of ice and salt. Seal the gallon bag securely.

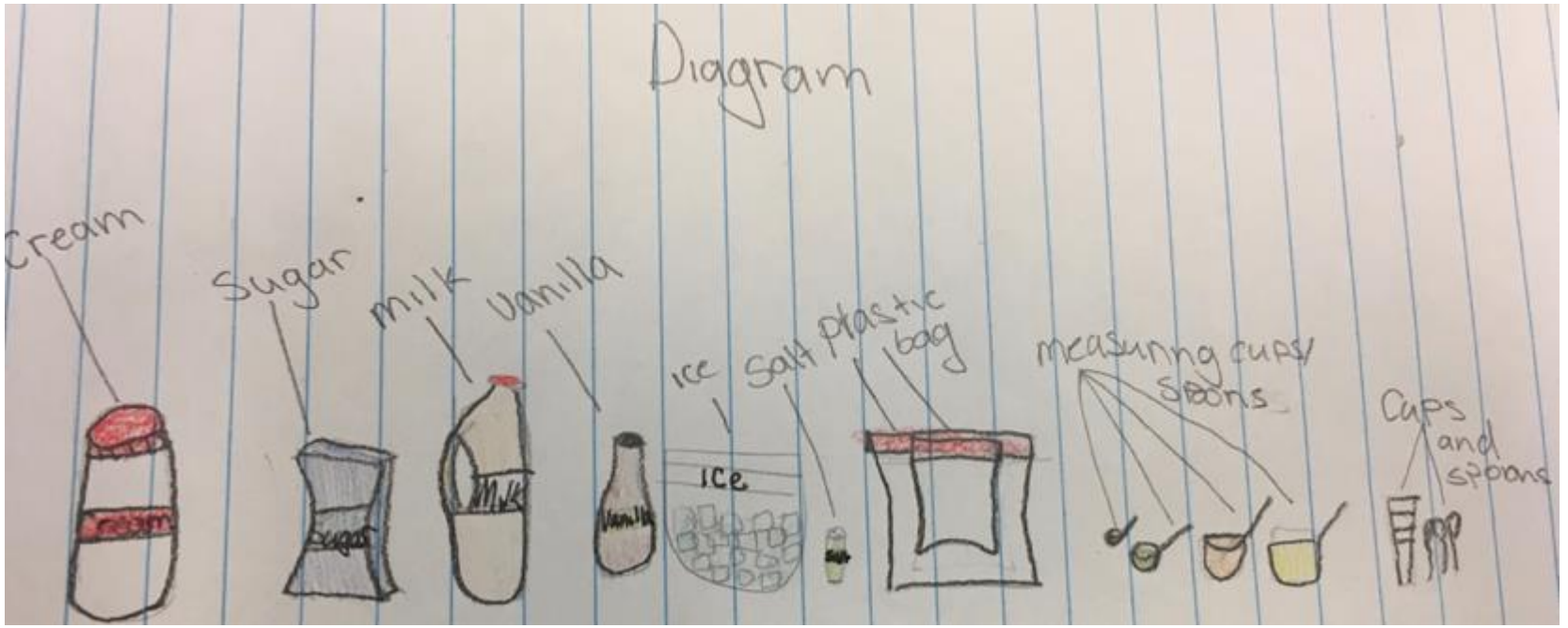
Gently rock the gallon bag from side to side. It's best to hold it by the top seal or to have gloves or a cloth between the bag and your hands because the bag will be cold enough to damage your skin.

Continue to rock the bag for 10-15 minutes or until the contents of the quart bag have solidified into ice cream.

Open the gallon bag and use the thermometer to measure and record the temperature of the ice/salt mixture.

Remove the quart bag, open it, serve the contents into cups with spoons and enjoy!

METHOD
DRAW A DIAGRAM OF YOUR TEST SET UP:



SAFETY
WHAT SAFETY ISSUES DO YOU NEED TO CONSIDER?

Make sure that you don't touch the bottom of the bags where the ice is because the salt makes it even colder

RECORDING RESULTS
HOW WILL YOU RECORD YOUR RESULTS? WHAT ARE YOU GOING TO RECORD?

Ice-cream preference

Homemade	Bought

We are going to record it using a tally system E.g. if someone likes the homemade we add a line in the homemade box.

RECORDING RESULTS
HOW WILL YOU RECORD YOUR RESULTS? WHAT ARE YOU GOING TO RECORD?

Recording the rating that we get from testers and then add them under the heading that they are under.

LOG BOOK
RECORD WHAT YOU DO WHEN YOU ARE TESTING

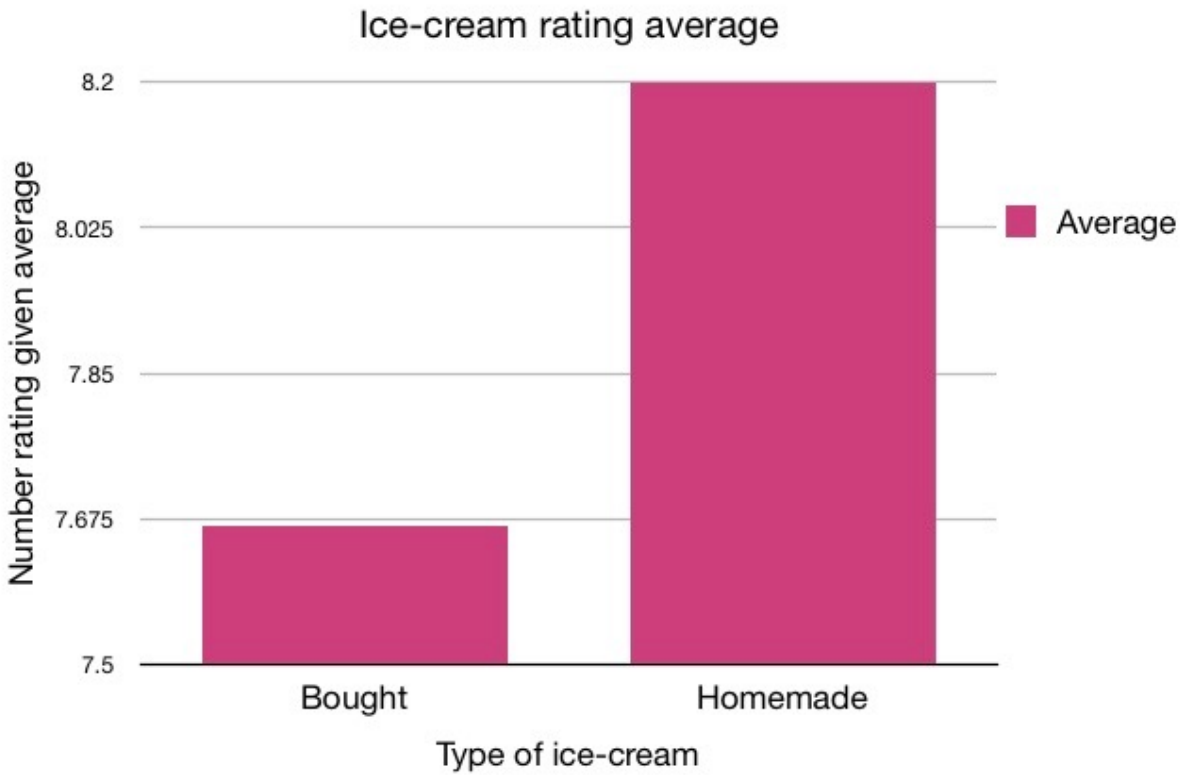
Log Book

Record what you do when you are testing

Date Time	Notes (Include what you did, particularly any changes that you made to your method)
27th November	Today we tested what milk would freeze faster so we would use that milk in our experiment. We used skim milk and long life milk.
4th December	

	A	B
	7.5	8.5
	5	7.5
	7.5	9.5
	10	9.9
	8	4
	6	8.5
	7	8
	8	8
	7	8
	7	6
	6.5	7
	10	9
	7.5	8
	10	8.5
	8	9.9
Average	7.666	8.2

RESULTS
MAKE A GRAPH OF YOUR DATA



DISCUSSION

What does the pattern of the results show you?

There isn't a pattern in our results but we found that lots of people liked both ice-creams and had a hard time guessing which it was.

Explain the results using science.

We can't really because it was peoples opinion but when creating the ice cream there was a chemical reaction when we mixed the salt and ice.

How could you improve your experiment?

Modifying the recipe and getting everyone to try both types instead of only one.

CONCLUSION

What were your findings?

That people liked the homemade ice cream more than the bought because of the sweetness

Was your hypothesis accepted or rejected?

Our hypothesis was accepted because we thought that it would be nicer than bought.