

## Discovery

Changes of state - Today we are going to be looking at changing a liquid to a solid

### You will Need

- Milk
- Sugar
- Flavourings (coco powder, vanilla extract, chopped strawberries - anything you desire)
- 3 Ziplock food bags
- Ice
- Salt
- Tea Towel
- Spoons
- Bowls

### Activities

- Add 1/4 cup **sugar**, 1/2 cup **milk**, 1/2 cup **cream**, and 1/4 teaspoon **vanilla** to the **quart Ziploc bag**. Zip that bag up so nothing leaks!
- Put the 2 cups of **ice** into the **gallon Ziploc bag**.
- Use the **thermometer** to measure the temperature of the ice in the **gallon Ziploc bag**. Make sure to record this number so you can record
- Add 1/2 to 3/4 cup **salt** (sodium chloride) to the **gallon Ziploc bag** of ice.
- Place the sealed **quart bag** inside the **gallon bag** of **ice** and **salt**. Seal the gallon bag securely.
- Rock the gallon bag from side to side. Hold it at the seal so that the cold ice doesn't freeze your hands instead of your ice cream. You can also use gloves or a cloth to protect your hands, just remember it will be colder than 0 degrees Celsius!
- Continue to rock the bag for 10-15 minutes or until the contents of the quart bag have solidified, or until you can't wait for ice cream anymore.
- Open the gallon bag and use the **thermometer** to measure and record the temperature of the ice and salt mixture. Notice how much colder it is than the ice on its own.
- In bowls or cones serve and most importantly enjoy your homemade ice cream!