**Our Plastic World: Making Plastics in the Kitchen**

***What do you know?***

You should have watched the video on Our Plastic World.

You should be able to describe what plastic is.

***What should you do now?***

You are going to try an experiment in class or in the kitchen at home. You will investigate how to make a simple plastic from simple household ingredients you have in your kitchen.



***What do you need:***

* 1 cup of whole milk or heavy cream, fatter is better
* Vinegar or lemon juice
* Saucepan
* Strainer

***What should you do?***

1. In the saucepan, heat the milk gently and bring it just to a simmer. Be very careful not to boil the milk as the reaction will not work if you do. \*\*Be careful with heat\*\*

2. Add the vinegar a few tablespoons at a time, stirring with a spoon until the milk starts to separate into solids and liquids.

3. Remove from the heat and pour the milk through the strainer when it is cool enough to handle.

***What is happening?***

The rubbery and soft stuff in the strainer is the "milk plastic," called casein, an essential part of cheese-making. Harden the plastic by freezing. See how your plastic stuff reacts when pinched, stretched, or dropped. If you let it sit for a while, or put it in the freezer, it will get hard.

***What else can you do?*** ***You could:***

* Pour it into ice cube trays or other shapes and allow it to harden in a fun shape. You could also paint it to make holiday ornaments or natural jewellery as a fun project.
* The plastic will be good for a few days but has the basic shelf-life of food. Throw it away before it becomes mouldy.