

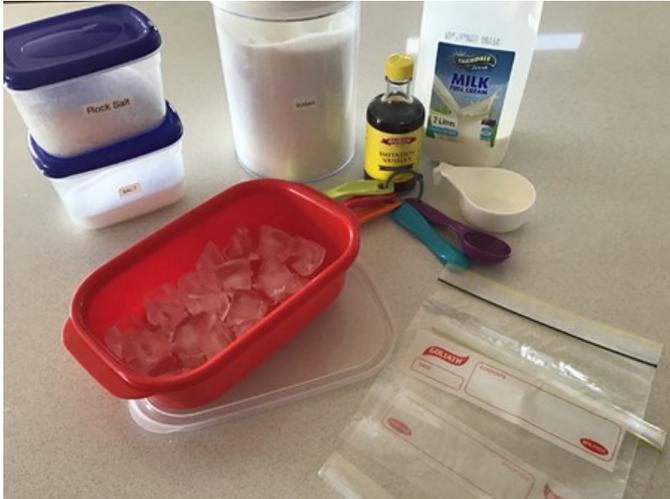
MAKE: KITCHEN SCIENCE - ICE CREAM

A MONTH OF HOLIDAY IDEAS

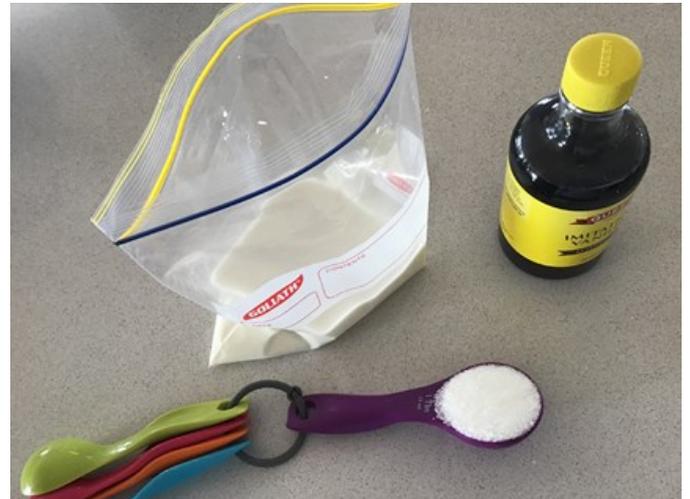
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Make your own ice cream and explore the best way to chill the ingredients to make a creamy, delicious treat!



WHAT YOU NEED: 2 zip lock bags, a plastic lunch box with a lid, measuring spoons, 1 cup milk, 1 tablespoon sugar, 1/2 teaspoon vanilla extract, ice cubes, 1/3 cup salt



STEP 1: Combine the milk, sugar and vanilla into a zip lock bag. Seal the bag airtight and place it into a second zip lock bag. Seal this bag too.



STEP 2: Fill the lunch box 3/4 full with ice and add salt. Place sealed zip lock bags into the lunch box and secure the lid tightly.



Why do we add salt at this stage?



STEP 3: Shake the lunch box hard for 5 minutes. Check the milk mixture to see if it is set. Shake for further 2 minutes if needed.



Why do we shake the lunch box?
What reaction are we trying to cause?



STEP 4: When the mixture is set rinse the small zip lock bag with cold water before opening. This will stop the salt water from getting into your delicious ice cream.



STEP 5: Add your favourite toppings like fruit, nuts, or honey. Serve and enjoy.

WHAT'S THE SCIENCE?

There is actually a lot of interesting chemistry that goes on to make ice cream. For example, think about how you started with refrigerated (or room-temperature) ingredients. You then had to cool them down to turn them into ice cream. How do the ingredients change during this process? Do you think the temperature is important? How cold does it need to be?



Why do we use salt? Salt makes ice melt faster because it lowers the freezing point of water. As the ice melts, it absorbs heat from the milk mixture, making it freeze.



This 4-part series is a great introduction to the wonderful world of science:

- Exploring Solids, Liquids and Gases
- Describing Matter
- Physical Changes
- Chemical Changes
- Particles and Matter

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TITLE: Exploring Matter- For Kindergarten to 3rd Grade

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