



stem4math

Ice cream



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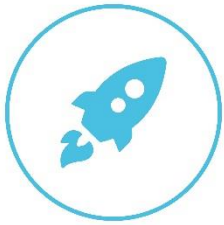
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Engage

Experiment; Water cycle

You will need:

- A tall glass jar with a lid
- Boiled water
- Ice cubes
- An adult

1. Pour 1 dl boiled water into the glass jar.
2. Place the lid upside down on top of the jar.
3. Put a couple of ice cubes on the lid.
4. Now you have your water cycle in miniature.

Questions to answer...

- What do you think will happen with the ice cubes?
- How will it look inside the jar?
- How will it look under the lid?

Important concepts:

Hypothesis, results, gas (steam), evaporation, liquid (water), solid (ice) and condensation.



Experiment; Surface tension

You will need:

- A glass of water
- A straw or a pipette
- A coin

How many water drops can fit on a coin?

1. Write down how many you think.
 2. Try it! Use a straw or a pipette that you dip into a glass of water. Suck up the water into the straw or pipette.
 3. Drip with the straw or pipette. Drip one drop at a time onto the coin and count.
- How many water drops will fit before it overflows?

Important concepts:

Surface tension, hypothesis and results.



Experiment: The three phases of water; Solid, liquid and gas

You will need:

- A candle
- Matches
- An adult

1. Light a candle and let it burn for a while (be careful!).
2. Light a match. Blow out the candle and turn the match towards the wick.
3. Note that the candle is lit when you are still a distance away from the wick. It is a gas that ignites.

All three phases at once...

The gas that burns, the molten wax that runs down the candle and the stiff candle that is solid.

Important concepts:

The three phases of water: solid, liquid, gas, hypothesis and results.





Engage

Write down why you and your friends should make a sugar smart ice cream?



Investigate

A good and healthy recipe

The characteristics of my ice cream:

The ice cream should have these ingredients or tastes:

- 1)
- 2)
- 3)
- 4)



Ice cream 1

The name of the ice cream

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Main ingredients =

Other ingredients =

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.....

.....

.....

Ice cream 2

The name of the ice cream

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Main ingredients =

Other ingredients =

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Write down the recipe in the squares on the next page. Also, write what you think about the ice cream/taste.

Pay attention to:

- The recipe should be clear with the correct quantity and amount of each ingredient.
- After tasting your first ice cream, you can change an ingredient.

Ice cream 1

Attempt ...: (write down the recipe!)

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We like it, or not:

Ice cream 1

Attempt ...: (write down the recipe!)

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We like it, or not:



What do you think about your two ice creams?

Evaluation

The name of ice cream 1:

Recipe:

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Evaluation

The name of ice cream 2:

Recipe:

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Create

Our ice cream recipes!

Based on your own taste buds, what would you like to change? Why?

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After having tasted and changed, this will be our final recipe.

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How much would we need to extend the whole recipe so that it would be enough for your class, one ice cream per student?



Other things to think about. Comments:

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Report

Now it is time for you to evaluate your work. What went well and what went less well? Also, explain the difficulties that you encountered during your work.

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I will remember this activity, because:

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