Sherbet

Special Interest Areas





STEM & INNOVATION



Sections









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Challenge Areas







LEARNING BY DOING

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PATROL SYSTEM













The Adventure

Sherbet is a yummy treat that mixes sugar and flavour with sour and fizzy. These attributes of sherbet are because of how the ingredients react with the saliva in your month. With your patrol or unit, make some sherbet and learn more about this yummy treat.

Plan

- 1. Investigate the key ingredients of sherbet icing sugar, citric acid, and bicarbonate of soda to discover what role they play in making sherbet sherbet.
- 2. Investigate saliva and what the key components are, and what and why a reaction occurs when you eat sherbet.
- 3. Consider the different ways that you could flavour your sherbet such as jelly crystals or powdered flavours like cocoa powder and decide what flavour sherbet you would like to make. You may also like to consider what would happen if you used a liquid such as honey or chocolate syrup to flavour your sherbet.
- 4. How much of each of the equipment and ingredients, listed in the 'Do' section below, will you need to make enough sherbet? Will everyone be making their own or will you be sharing?
- 5. As you will be making food, make sure to consider food safety requirements including any dietary requirements that others may have.

Do

- 1. Make sure that you have all the ingredients and equipment required to make sherbet and that everyone is aware of the safety and dietary requirements.
- 2. Find out how each of the key ingredients reacts to water by testing a small (approximately 1/8th of a teaspoon) amount with water. Test each key ingredient individually as well as mixtures of icing sugar and citric acid, icing sugar and bicarbonate of soda, and bicarbonate of soda and citric acid. Record your observations.
- 3. Taste each of the key ingredients individually.
- 4. Make your sherbet using the recipe below:
 - In a small bowl, cup, or patty pan, mix 1 teaspoon each citric acid and bicarbonate of soda with 2 tablespoons icing sugar. Make sure to mix the ingredients well.
 - Add 3 tablespoons of flavouring as previously decided.
 - Enjoy your sherbet and the chemical reaction in your mouth.
- 5. Compare your sherbet to some store-bought sherbet. How does it differ in taste and reaction?

Review

- 1. Did you like the sherbet and did it react how you expected it to?
- 2. What did you enjoy the most from making and eating your sherbet? What did you learn?
- 3. If you were to do this activity again, what would you do the same? What would you do differently? How do you think changing the amounts of each of the ingredients may change the taste and reaction of the sherbet.
- 4. If you did Part 5 of 'Do', have a look at the ingredients of the store-bought sherbet. How do they similar or differ to the sherbet you made? What effect do you think this has on the sherbet?

Safety

- As you will be making and consuming food, it is important to practice good hygiene and wash hands, etc before proceeding.
- Be aware of dietary requirements as this activity may not be suitable for everyone. Some key dietary requirements to consider are diabetes as this activity uses high amounts of simple sugars, and veganism as jelly crystals are often not vegan friendly.
- vegan friendly.
- As you will be working with fine powders such as bicarbonate of soda and icing sugar be careful to note inhale them as this can be a choking hazard. Younger sections should be supervised and assisted when handling powders.

Variations

- Try combining this challenge cards with the Discover Dairy: Ice Cream challenge card for a cold, fizzy treat.
- In your patrol, try making a range of different flavours and trying them all. Which is your favourite? What do they taste like all together?