ACTIVITY

DIVERSITY AND THE CHEMISTRY OF SHERBET

Adapted from an activity by Sarah Chapman & STEM Changemakers

INGREDIENTS

- Sugar
- Bicarbonate soda (baking soda)
- Citric acid
- Jelly crystals (choose any flavour you like!)

MATERIALS

- 4 spoons
- 3 small bowls or containers

DISCOVER THE FLAVOURS

Gather your ingredients. One at a time, put a small amount of each ingredient on your finger and give it a taste. Match the ingredient to the flavour.

Sugar	SOUR, TART
Bicarbonate Soda	FRUITY
Citric Acid	SLIGHTLY SALTY AND BITTER
Jelly Crystals	SWEET

TASTING EXPERIMENT!

You know how each ingredient tastes on its own. But what happens when you mix them together?

BATCH 1

1. Add a spoonful of each ingredient to a small bowl.
2. Choose one ingredient and add an additional spoonful.
3. Write your recipe on the card on the right.
4. Stir your sherbet mixture to combine the ingredients.
5. Place a small amount on your tongue.
6. Describe how it tastes and feels. Write your thoughts on the recipe card to the right.

BATCH 1

Ingredient	Number of Spoons	How Does It Taste? How Does It Feel? Is It Fizzy?
Sugar		
Citric Acid		
Bicarbonate Soda		
Jelly Crystals		

BATCH 2

7. Repeat the steps, but this time, choose a different ingredient in step 2. How is this mixture different?

BATCH 2

Ingredient	Number of Spoons	How Does It Taste? How Does It Feel? Is It Fizzy?
Sugar		
Citric Acid		
Bicarbonate Soda		
Jelly Crystals		

BATCH 3 (OR MORE!)

8. Try again! Use 5 spoonfuls of the ingredients, but choose different amounts of the ingredients than in your previous batches.

BATCH 3

Ingredient	Number of Spoons	How Does It Taste? How Does It Feel? Is It Fizzy?
Sugar		
Citric Acid		
Bicarbonate Soda		
Jelly Crystals		

REFLECT AND CREATE Each of the ingredients has its own distinct texture, colour, and flavour. When they are combined, they create a unique sensory experience. And that experience is different depending on how you combine the ingredients. How is this experiment like life? How is it like building community or working together in a group? Think about how the different ingredients are like human diversity. Grab some paper and a pen – or markers, coloured pencils, crayons, or any other art supplies you like – and reflect on how diversity in chemistry is like diversity in people. Write, draw, paint – express yourself in any way you like. Have fun!

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THANK YOU! WE HOPE YOU ENJOYED THiS ACTiViTY.

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