

# BANANA SORBET!

Use food science to make a healthy, creamy, delicious fruit sorbet!

## **Experiment: Banana Sorbet**

How can you make a creamy frozen ice cream without any cream?

In this activity, we're going to learn how!

## **Materials**

- Food processor or blender
- Frozen, overripe bananas, broken into chunks
- Almond milk (optional)
- Peanut butter (may substitute other nut butters, or simply pureed nuts)

## **Procedure**

- Add frozen banana chunks to food processor.
- Try processing just the banana. If it's very frozen, it will be hard to process without a liquid.
- To make it process better, and to add a creamy texture, add a liquid like almond milk. You can also use a non-frozen juicy fruit, like chilled honeydew.
- Just the fruit will make a nice frozen snack, but to get a truly creamy consistency, you need some sort of fat.
- Add a few tablespoons of peanut butter, and process. See how it changes the consistency and flavor.
- Serve and Enjoy!

## **Explanation**

The quality of a sorbet or fruit ice cream depends mostly on the properties of the fruit.

Some fruits have a lot of a starch called pectin (berries, peaches, plums, and grapes), while others have a lot of fiber (mangoes, pears, and bananas). These molecules make thick, creamy sorbet, because they are high in viscosity and full of body, and they make for an especially creamy sorbet, because these long molecules stop ice crystal from growing. Big ice crystals make sorbet hard and crunchy, or even a solid mass of ice.

By contrast, watermelon and citrus like lemon, lime, and grapefruit lack pectin or fiber. They need to be carefully balanced with sugar.

Many sorbets don't use egg or fat, but adding these ingredients (like peanut butter) makes it easier to get a creamy texture, because the protein and fats help prevent ice crystals, and hold more air bubbles.

## **Win Prizes!**

Send us pictures or videos of your fruit ice cream creations, or draw an illustration explaining how each ingredient helps make ice cream creamy! Submissions will be entered into a raffle for prizes!