

# Food Science for the Win

## Popsicles Resource Guide



The kitchen is an ideal lab for experimenting and being curious while embracing your inner scientist. Explore the science of popsicles.

### Basic Concepts and Terms

- **Popsicle or ice pop:** A liquid based frozen snack on a stick. Popsicles are frozen as is, or at rest, rather than whipped like ice cream or sorbet, so ice crystals are a desired result.
- **Freezing point:** The temperature at which matter turns solid. For popsicles, each individual ingredient will have a unique freezing point, which can affect texture since the freeze time of those ingredients will be different. Freezing also diminishes the popsicle mixture flavor.
- **Freezing speed:** The speed at which your popsicles freeze. The faster the freeze, the better the texture because there is less time for ice crystals to form. Placing homemade popsicles in the back of a freezer will help increase freezing speed and therefore decrease freezing time.

### Basic Equipment

- **Popsicle molds:** Store bought popsicle molds made of silicone work best. Paper cups and wooden popsicle sticks can be used in place of store bought molds.
- **Blender or food processor:** A countertop blender, food processor, or immersion blender is used to blend popsicle ingredients together.
- **Spouted glass measuring cup:** Measuring cups with spouts make it easier and less messy to pour popsicle mixtures into molds.

### Basic Techniques

- **Adjusting flavor or taste** is subjective. If your popsicle mixture is too sweet, add sourness, like lemon or lime juice. If it's too sour, add something sweet, like honey or maple syrup. If it's too bitter, add something creamy, like yogurt or milk.
- **Crooked sticks** can be avoided by covering your molds with aluminum foil before inserting your popsicle sticks.
- **Unmold** by running warm water over the molds and moving the molds frequently. Gently wiggle the popsicle sticks or squeeze the bottoms of the molds.
- **Layering** is achieved by blending and freezing individual layers. Remember to insert your popsicle sticks into your first layer before freezing! Use the aluminum foil method to secure the popsicle sticks.
- **Storing** homemade popsicles requires removing frozen popsicles from their molds and placing them in freezer bags or airtight freezer containers. It's best to consume homemade popsicles within 4 to 6 weeks.

## Suggested Resources

- ***Foolproof Frozen Treats With a Side of Science* by M.M. Eboch:** This cookbook features 12 beginner recipes that encourage experimentation and reinforce concepts related to popsicle making. Place a hold on the [print book](#).
- ***3 Ingredient Fruit & Yogurt Popsicles* ([link](#)) from *Live Eat Learn* by Sarah Bond:** A simple recipe to get you started on experimenting with creamy popsicle making.
- ***Ice Pops!* by Cesar Roden:** Try out five different fresh and flavorful popsicle recipes. Place a hold on the [print book](#).
- ***People's Pops* by Nathalie Jordie:** A collection of 55 seasonal ice pops and shave ice recipes from Brooklyn's coolest pop shop. Place a hold on the [print book](#).