

FOOD SCIENCE

DAY TWO: PICKLED CHERRY TOMATOES

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4-H STEM



Pickled Cherry Tomatoes

Welcome to Food Science Camp Day Two!

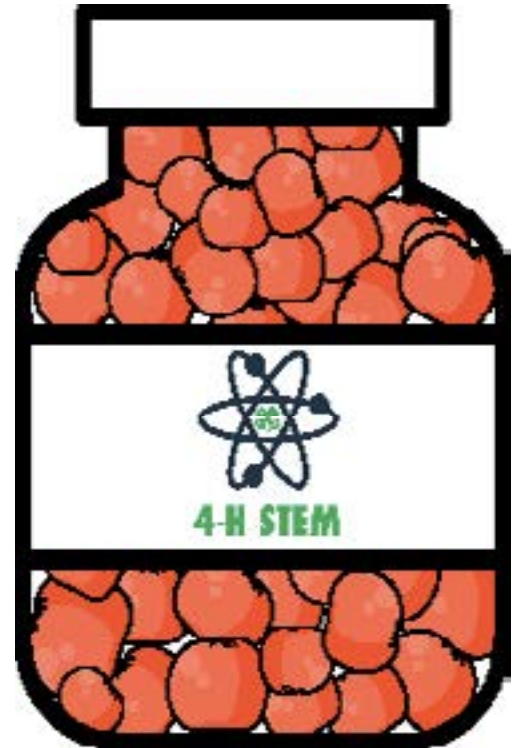
On day one, you learned about the chemistry of baking! Today you are going to learn about the process of making pickles. Have you ever wondered how pickles are made? How do they get those sweet and sour flavors? Today you are not only going to figure that out, but you are going to make your own pickled cherry tomatoes! Share what you learned on the FlipGrid and Microsoft Form linked at the bottom of this handout! For more information, check out this video! <https://youtu.be/P0nkzQ99v2A>

How are Pickles Made?

The process begins with fresh vegetables. The produce is washed, chopped as needed and mixed with salt. The salt draws out juices, preserves the vegetables while the fermentation process starts and regulates the fermentation process itself. The mixture is then packed into air-tight containers and given time to sit.

During this time, cultures transform the fresh vegetables into pickles by converting sugars to lactic acid, acetic acid, carbon dioxide and other beneficial substances. The lactic acid is primarily responsible for preserving the vegetables, and also creating the wonderful flavor and aroma of traditional pickles.

Throughout history, pickling was a necessity. It was the best way to preserve food for a long period of time. When we think of pickles, cucumbers typically come to mind. But as we know, pickles aren't limited to cucumbers. Pickles can be made with cauliflower, radishes, onions, green beans, asparagus and a seemingly endless variety of other vegetables and fruits. Today, you are going to see the pickling process in person by making your own pickled cherry tomatoes!



Supplies & Ingredients:

- Glass Jar (1-3 depending on size)
- 1 Pint Cherry Tomatoes
- 2 (1 Inch) Sprigs Rosemary
- ½ Cup Honey
- ½ Cup Vinegar
- ½ Cup Water
- 1 Teaspoon Salt

Instructions:

- Wash the tomatoes and remove any stems. Place tomatoes aside to dry.
- Prick each tomato with a tooth pick or skewer. (this will keep the tomatoes from bursting and allow them to soak up the liquid later)
- Place the tomatoes and rosemary into a heat-proof jar.
- Combine honey, vinegar, water and salt in a small pot and place on medium heat. Stir well.
- After the mixture reaches a full boil, turn off the heat and allow the liquid to cool for five minutes.
- Pour the mixture over the tomatoes.
- Let the tomatoes sit for about 24 hours before enjoying. The flavors will deepen and mellow over time.
- Refrigerated, the tomatoes will keep for at least one month.

Challenge!

Make an extra jar of pickled tomatoes and gift them to a friend or family member!

Check out this fair entry idea! Category: 4-Science & Nutrition Fair Exhibits Section 4308

The Oklahoma and Tulsa State Fair entry descriptions can be found here:

<http://4h.okstate.edu/events-and-activities/state-events-activities/oklahoma-state-fairs>



Resources: PBS.Org History in a Jar

Pickled Vegetables Coloring Sheet

