

Winter Classroom Connection

Title: *Researching & Sampling Preserved Foods*

Duration: 90 minutes

Objectives:

- Students will research different methods of food preservation.
- Students will compare and contrast fresh and preserved foods.

Materials:

- YFH Winter Video
- Student devices with internet connection (at least 3)
- Food Preservation Worksheets (drying/pickling/canning)
- Preserved foods for sampling (optional)

Key Terms:

- **Brine:** A solution of salt and water used for preserving and/or enhancing the flavor of food.
- **Canning:** The process of preserving food in a sterilized and sealed container.
- **Curing:** A chemical or physical process (such as salting, drying, or smoking) used to preserve food (such as meat, fish, and some vegetables).
- **Drying:** The process of removing water from food in order to preserve it.
- **Fermentation:** The process of using harmless bacteria, yeasts, or other microorganisms to preserve food, as well as to alter its flavor and texture.
- **Microbe:** A microorganism, such as a bacterium that can cause disease or fermentation.
- **Pickling:** The process of submerging a food in a brine or vinegar solution in order to preserve it and change and/or enhance its flavor.
- **Yeast:** A single cell fungus that is used to make some fermented foods.

PROCEDURE

Introduction (15 minutes): Ask students why people had to figure out ways to preserve food in the past (*possible answers: limited growing season, scarcity due to crop failures*). Pose the following questions to the class:

- What preserved foods have you heard of, seen in the grocery store, or eaten?
 - *Pickles, sauerkraut, cold cut meats (e.g salami), kimchi, jerky, yogurt, cheese*

- How do you think people learned how to preserve food in these ways?
 - *It likely happened by accident. Someone might have left a piece of fruit in the sun and it dried out. When they tasted it later, they found it was still edible. Or they might have buried leftover food in the ground to hide it from scavengers and later returned to find it cool and preserved.*

Explain that there are many ways to preserve food, but today we're going to focus on three: canning, pickling, and drying. Ask students what they know or think they know about these processes and have the class create a draft definition for each.

Group Work (30 minutes): Divide the class into groups and assign one of the three preservation methods to each group (can have more than one group researching a method if necessary to keep group size manageable). Explain that groups will be researching different methods of food preservation. Students can use the provided websites or their own internet research to find information about each method and complete the worksheet as a group.

Share Out (20 minutes): Bring class back together and invite groups to take turns sharing their findings with the class. After the groups have finished presenting, ask students:

- What foods that were mentioned have you tried/not tried before?
- Where did the foods you researched come from/originate?
- Are there any of the preserved foods you would be excited to try?

Preserved Foods Tasting (20 minutes): Explain to students that when people preserve food, they are not only making it last longer but they are also changing the flavor, texture, and nutritional benefits. Explain that students are going to have the opportunity to try some preserved foods from food traditions around the world.

Try to have at least 2 examples of each category of preserved foods for students to taste. Some easy-to-source preserved foods might include beef jerky and raisins (dried), dill pickles and sauerkraut (pickled), canned peaches and jarred tomato sauce (canned), or kimchi and parmesan cheese (fermented), but feel free to incorporate other preserved foods that you know and have access to.

As students try each sample, invite them to respond to the following questions:

- What flavors did you taste?
- How would you describe the texture compared to the fresh version?
- Is there anything that you've eaten that has a similar taste or texture?
- How would you rate this food? Thumbs Up/Middle/Down

Closing (5 min): Explain that although refrigeration/freezing has become the dominant way of preserving food in our modern food system, people still use these techniques to make delicious foods that they love to eat and that are an important part of their food culture.

Name(s): _____

CANNING

- 1) Describe the process of canning food in your own words:

- 2) What are some of the earliest examples of people using this technique to preserve food?

- 3) What are some of the important things to know when canning at home?

- 4) Provide 5 examples of foods that are commonly canned or jarred.

Name(s): _____

PICKLING

- 1) Describe the process of pickling food in your own words:

- 2) How does a brine help preserve food?

- 3) What are some of the earliest examples of people using this technique to preserve food?

- 4) Provide 5 examples of pickled foods.

Name(s): _____

DRYING

- 1) Describe the process of drying food in your own words:
- 2) What is the difference between dehydrating, curing, and smoking foods?
- 3) What are some of the earliest examples of people using this technique to preserve food?
- 4) Provide 5 examples of dried foods.

Resources

General

[Historical Origins of Food Preservation](#).

Basic overview of how different food preservation methods originated.

[6 Native American Food Preservation Techniques for the Modern Homesteader](#)

This article provides methods, besides drying and smoking, that indigenous Americans used to preserve food.

[CT Crop Calendar - SNAP4CT](#)

Connecticut Seasonality Calendar. Color coded chart that shows the food ready to harvest during each month of the year.

Canning

[The Brief History of Canning Food](#)

This article provides a brief history of canning, from Napoleon to Mason jars.

[Canning for Beginners: How to Can Food at Home](#)

This website provides a beginner's guide to the two main methods of canning: water bath and pressure canning.

[62 Timeless Canning Recipes Only Grandma Knew to Make](#)

This article includes dozens of ideas for foods that can be produced through canning.

Pickling

[History in a Jar: Story of Pickles | The History Kitchen | PBS Food](#)

This provides a brief history of pickles in the United States. It also provides examples of foods that can be pickled

[Science of Pickles: What Is Pickling? | Exploratorium](#)

This article explains how pickling helps to preserve foods in two unique ways. It talks about different types of brines and how they impact the food differently

[The A List: Pickle-worthy Veggies and Fruits - Hobby Farms](#)

This article provides examples of different foods that can be pickled and the methods people have created to do so

Drying

[What are the Different Types of Dehydrated Foods?](#)

This article breaks down how and what types of foods can be dried. It also provides some examples of dried food products.

[What's the Difference Between Smoking and Curing?](#)

This article focuses on the differences between curing and smoking meats as a preservation method. It also explains how flavors and textures change and the preparation for each.

[A Beginner's Guide to Dehydrating Food | Eartheasy Guides & Articles](#)

This article provides an overview of the different methods of drying food and provides examples of foods that can be dried