

# Local Food Preservation

## *Pickled, Frozen, Dried*

**GRADE**  
**2-3**

**Month: February**

**Time Required: 30 minutes**

**Tasting: Preserved fruit or veggie**

### Lesson Goals

- Students will increase their knowledge of fruits and vegetables.
- Students will learn to try new fruits and vegetables and increase their preference for them.
- Students will learn that their peers like to eat fruits and vegetables.
- Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

### Lesson Objectives

- Students will be able to recall a food memory.
- Students will be able to define preservation.

### Materials

- Images or tangible examples of preserved foods
  - Dried (beans, apples)
  - Frozen (peas, berries)
  - Pickled (jars of pickled vegetables)
- Tasting options of your choosing. Some ideas offered here!
  - 2 types preserved foods (ex: dried apples and pickled cucumber).
  - 2 types of pickled foods (ex: cucumbers, sauerkraut, curtido).
  - One food in two forms (ex: fresh cucumber, pickled cucumber)

### Preparation

- Print "Food Memories are Preserved!" sheets for students.
- Decide what tasting you would like to offer based on the lesson length.

### Recommended Books

(Send book suggestions to [suzy.wilson@idph.iowa.gov](mailto:suzy.wilson@idph.iowa.gov).)

### Standards Connection

This lesson supports the following Iowa Core standards.

#### Health Education

[Standards 1, 2, 3, 4, 5, 7, 8](#)

#### Science

Second grade - [2-LS4-1](#).  
LS4.D: Biodiversity

Third grade - [3-LS1-1](#).  
LS1.B: Growth and development

### Lesson Checklist

- Physical Activity
- Tasting
- Voting
- "Asking" Discussion
- Newsletters, Bingo cards, Stickers, Incentives
- Science Connection: Biodiversity (2nd) & Plant life cycles (3rd)

## Engage

### 1. Introduction: 2 minutes

*The “Introduction” section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day's lesson.*

Count students off into two equal groups. At an open space in the room, have students stand in two concentric circles. Students on the inside and the outside circles should face one another so that each student is standing across from a partner. If there isn't room to make two circles, have students stand in two lines facing one another.

### 2. Engage Activity: 8 minutes

*The “Engage Activity” section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.*

Share with students, *Today, we're going to learn about **preserving** food.* Note new vocabulary word: preserve. Define, write out, and have the class repeat the word “preserve.” *Preserving means to make something last longer. Our brains do this by making memories! When something happens in our life, when we learn something, or when we taste something, our brain preserves that experience, and it is saved as a memory. We're going to take turns sharing some food memories with each other.*

#### Food Memories Movement

*I'm going to ask a question, and you and your partner - the person across from you - will take turns sharing. Hold up a high-five with your partner so we can make sure everyone is paired up. Great, now hands to your sides. You'll each have a few seconds to share, and then we'll rotate partners. Consider using a call-back that students are familiar with to progress instructions and facilitate taking turns.*

1. *Outside circle, tell your partner about something tasty you ate at school last week. After a few seconds, get students' attention (call-back). Inside circle, it's your turn! Tell your partner about something tasty you ate at school last week.*
2. *Inside circle, move two spots to the right so you are now facing a new partner. Inside circle, tell your new partner about your favorite snack to eat at home. After a few seconds, get students' attention (call-back). Outside circle, it's your turn! Tell your partner about your favorite snack to eat at home.*
3. *Outside circle, move two spots to the right so you are now facing a new partner. Outside circle, tell your partner about something you liked to eat when you were a baby. After a few seconds, get students' attention (call-back). Inside circle, it's your turn! Tell your partner about something you liked to eat when you were a baby.*

*Thanks for sharing with your partners. Your brains have preserved some very special food memories!*

## Explore

### 3. Experiential Learning: 6 minutes

*This is a time for students to familiarize themselves with what you'll be tasting. The best way to do this is through a hands-on or exploratory activity.*

Have students return to their desks (opportunity for 3 deep breaths).

Explain, *For as long as humans have been eating food, they've found ways to preserve it. What does preserving mean? (Reference and read posted definition together) To make something last longer. When we preserve food, we turn a fresh food into a food that is saved to eat later. Preserving foods first began as a way to save foods from the summer harvest. Think about about a plant's life cycle, how they grow from tiny seedlings to fruits with new seeds. After they are harvested, fruits and vegetables only last a short time unless they are preserved. Let's explore three ways to preserve food.*

1. *Dried foods are preserved by removing water.* Show images of dried apples, beans, raisins. Point out the stage of the life cycle (for example, apples are fruits that contain seeds).
2. *Frozen foods are preserved by making the food very cold.* Show images of frozen peas, berries. Point out the stage of the life cycle (for example, berries are fruits that contain seeds).
3. *Pickled foods are preserved by adding vinegar or salt.* Show images of jars of pickles. Point out the stage of the life cycle (for example, cucumbers are fruits that contain seeds).

*Just like we have a large variety of fruits and vegetables to harvest, we have a variety of ways to preserve them.*

\*\*If you have more than 30 minutes, check out this FoodCorps lesson, ["Quick, Pickle That!"](#) and consider making pickles as a classroom during the extended lesson.

### 4. Tasting Activity: 8 minutes

*The "Tasting Activity" section is when students get to try the fruit or vegetable. Don't forget to review your food tasting norms (for example, "don't yuck my yum").*

Before you pass out any samples, be sure to share your brave tasting rules (for example, don't yuck my yum, we all try together, etc.). As students receive their samples, talk the class through using their senses to explore the tasting.

#### Preserved Foods Taste Test Ideas:

1. Offer classrooms 2 types preserved foods to sample (ex: dried apples and pickled cucumber).
2. Offer classrooms 2 types of pickled foods to sample (ex: pickled cucumber, sauerkraut, curtido).
3. Offer classrooms one food in two forms, fresh and preserved (ex: fresh cucumber, pickled cucumber)
4. Use all 5 senses to compare and contrast the preserved foods.
5. Discuss flavors, textures, colors, seed shapes, etc., as a class.

**Local Food Facts!** *If you're tasting local food, be sure to share information about where it came from: Iowa farm/farmer, location, distance from the school (a map is a great visual here!), when it was harvested, how did you get it, etc.*

## Reflect

### 5. Voting Activity: 3 minutes

*This is a time for students to give their opinion on what they tried!*

As students taste the preserved foods, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

### 6. Reflection: 3 minutes

*Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion."*

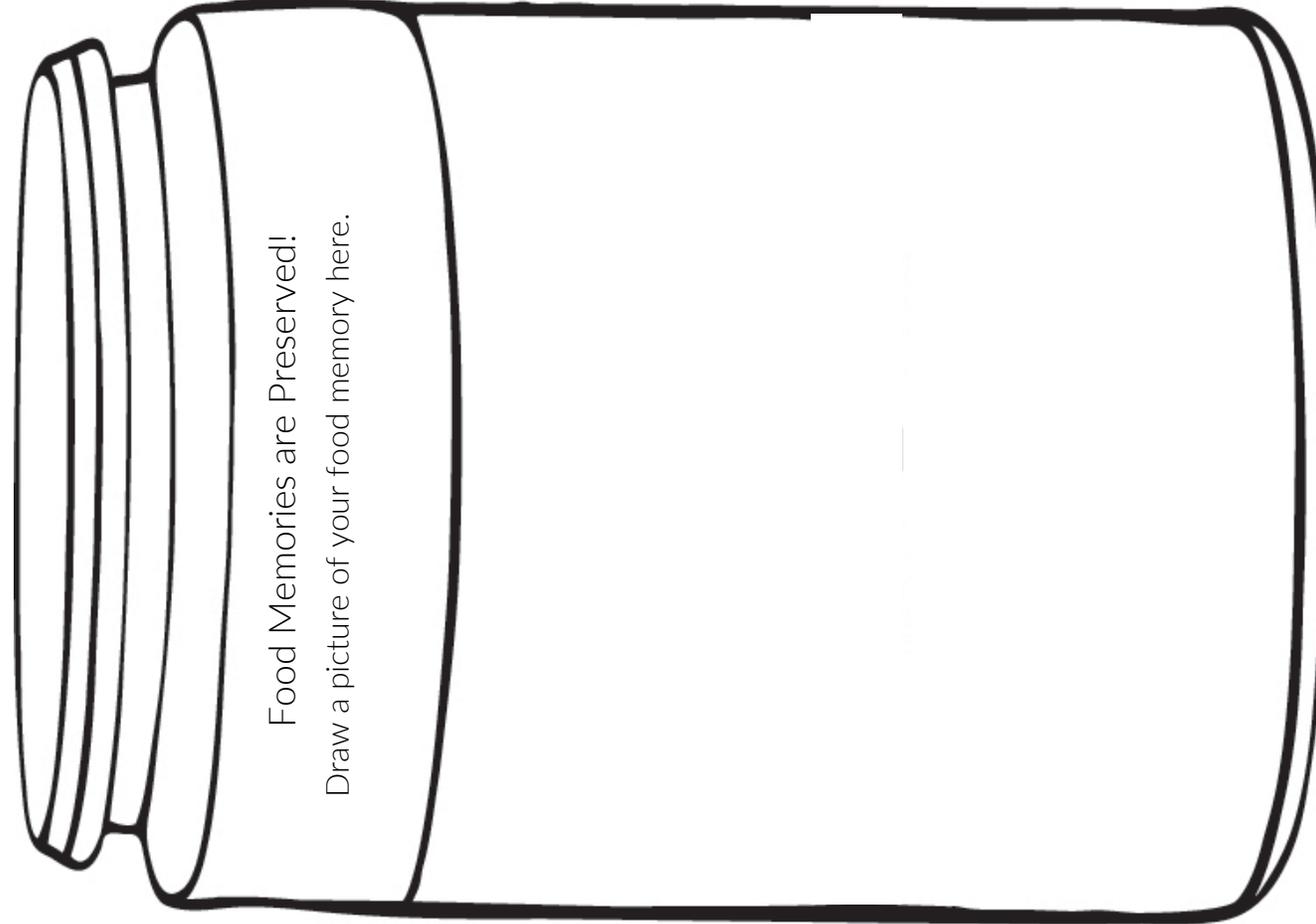
Pass out "Food Memories are Preserved!" sheets. Ask students to draw a picture of a food memory!

#### Asking Discussion:

*Raise your hand if you're excited to go home and tell your family about tasting pickles.*

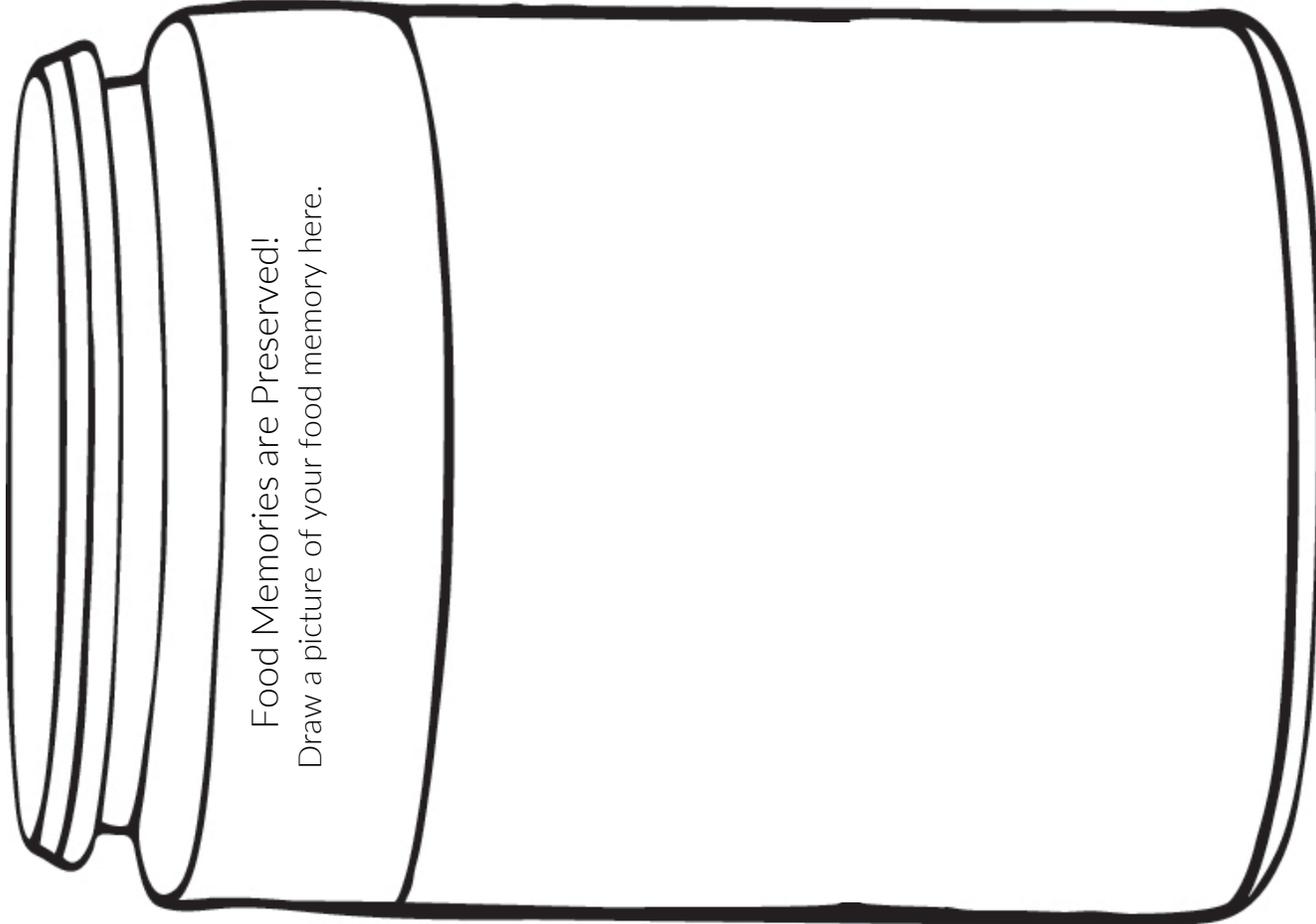
- Ask a student with a raised hand: *if you wanted to try this at home, how might you ask your grown-ups?*
- You might also ask additional questions like, *where could you buy pickles or other types of preserved foods? What else do you know about pickles or other preserved foods?*

\*Leave newsletters, incentives, stickers, and BINGO sheets with the teachers to pass out.



Food Memories are Preserved!  
Draw a picture of your food memory here.

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This material was funded by USDA's Supplemental Nutrition Assistance Program – SNAP. It was developed by the Iowa Department of Public Health in partnership with the Iowa Department of Human Services.  
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## Additional Materials

### Physical Activity

Choose a physical activity to incorporate into the lesson. Ideas for physical activities are available at <https://idph.iowa.gov/inn/play-your-way/brain-breaks>.

### What You Need to Know About Preserved Fruits and Veggies

- Preserved fruits and veggies include those that are dried, canned, frozen or fermented. They're a healthy option when fresh fruit and vegetables are hard to find or too expensive.
- Some advantages of preserved fruits and veggies include greater convenience, more variety of foods available, and great taste. Canned fruits and veggies are usually ready to eat, so they do not require as much preparation as fresh ones.
- Some frozen fruits and vegetables contain added preservatives or sauces, so always check the ingredient list on the back of the package.
- Look for canned and frozen fruits and vegetables that say "reduced/low sodium" or "no added salt" with no added sugar. Look for fruits canned in water or 100% fruit juice instead of syrup.
- Look for cans that are clean with no dents, cracks, bulges, or leaking.
- Dried fruits and veggies have a crunchy or chewy texture and are a convenient way to eat healthy on the go. Look for dried fruits and veggies with no added sugar and low salt, if possible.

### Facts About Preserved Fruits and Veggies

- Pickled vegetables are preserved with a brine (salt and water) and an added acid, like vinegar.
- Fermented vegetables are preserved with a brine and a good bacteria or yeast (which creates its own acid). Different types of fermented foods include kimchi (cabbage and other vegetables), miso (soybeans), and sauerkraut (cabbage). Fermentation has been used to preserve food for centuries.
- Freezing food greatly slows down the growth of bacteria, allowing food to stay fresh for weeks to months.
- Canned foods are heated before canning, killing harmful bacteria and helping with preservation. Canned foods can generally be stored for 1-5 years!
- Store frozen foods at 0°F or below in an airtight container. Keep the freezer temperature consistent for the best quality.

### Health Connection

- Look at the Daily Value percentage next to sodium on the nutrition label to determine if a food is low or high in sodium (salt). If it is  $\leq 5\%$ , that food is low in sodium. If it is  $\geq 20\%$ , that food is high in sodium. Make sure you check the serving size to see how much of the food contains that amount of sodium. Try to choose preserved fruits and veggies that are low in sodium.
- The same Daily Value recommendation applies to added sugars. Look for preserved fruits and veggies that have  $\leq 5\%$  of the Daily Value for added sugars for the healthiest options.

### References and Resources

<https://store.extension.iastate.edu/product/4369>

<https://frozenadvantage.org/advantage/?slide=0>

[https://kidsgardening.org/digging-deeper-fermentation/?mc\\_cid=e0802d633a&mc\\_eid=22ee43239e](https://kidsgardening.org/digging-deeper-fermentation/?mc_cid=e0802d633a&mc_eid=22ee43239e)

<https://www.eatright.org/food/vitamins-and-supplements/nutrient-rich-foods/are-canned-foods-nutritious-for-my-family>

<https://medlineplus.gov/foodlabeling.html>

ISU's Spend Smart Eat Smart educational videos on reading food labels: [sodium](#) and [sugar](#)

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