HOME FOOD & NUTRITION AWARD

PROJECT: FOOD PRESERVING

GOALS

A. FOOD PRESERVING FACTS: Identify 4 key **food preservation** terms**.** Complete the activity.
B. PRESERVATION CHALLENGE: Complete one preservation experiment with adult supervision.

A. FOOD PRESERVING FACTS

Fresh food is healthy food, but it is also important to make foods last so that you get the most for your money. Many foods will go bad after just a few days, others can last for weeks without refrigeration or food preservatives. Modern technology and processes have improved our ability to keep foods fresh longer.

Preserving Terms: (Identify 4.)

- ☐ *preserving*—process used to prevent decay, rotting, or spoiling of foods
- ☐ *pickling*—make food acidic by adding an acid such as vinegar (e.g. pickles, sauerkraut)
- ☐ *drying/dehydrating*—use heat to remove moisture in fruits, vegetables, or meats
- ☐ *jams*—sweet, thick spreads of crushed or chopped fruit with added sugar
- ☐ e*xpiration date*—the last day a food should be eaten
- ☐ *"sell by" date*—for a store to know how long to display the food. You can eat past the sell by date within the normal recommended time.

Food Storage Activity

Most foods are stored in a pantry, refrigerator, or freezer. Knowing where to store certain foods helps keep your foods fresh for the longest time.

Find 5 items in your kitchen from the Food Storage Tip Sheet (found at the end of this document). For each:

1. Find out if it is recommended to be stored in the pantry, refrigerator, or freezer.
2. Note where it is currently being stored.
3. Note where it is recommended to be stored.
4. Check the expiration date or sell by date to make sure it is still good.
5. Ask you parent or guardian permission before you move the food to a different location.
6. Share your findings with a parent or guardian.

B. PRESERVATION CHALLENGE

Try one of the following experiments to learn a technique to preserve food.

☐ **Option 1—Preserve Apples**

Try three substances to see how they preserve an apple.

☐ paper, pencil
☐ Substance 1: lemon juice or vinegar
☐ Substance 2: milk or baking soda
☐ Substance 3: distilled water

Preserving Steps (* = adult help needed)

1. *Take 3 apples and cut each in half.
2. For each apple, add one substance to one half and nothing to the second half.
   Apple #1 add lemon juice OR vinegar (an acid) to one half
   Apple #2 add milk or baking soda (base) to one half
   Apple #3 add distilled water to one half of the apple
3. Let the apples sit for one hour. Come back and check for changes. Record your changes.
4. Ask the following questions:
   Which substance preserved the apple the best?
   Is the substance helpful or harmful?

☐ **Option 2—Make Pickles**

Recipe adapted from "Refrigerator Pickles" by National Center for Home Food Processing and Preservation

Prep: Wash cucumbers well in a colander immediately before using. Have an adult cut the ends off each cucumber, then slice cucumbers lengthwise in half. Cut in half lengthwise again until you have created spears. Place spears in a large bowl.

Recipe:

☐ 16 pickling cucumber spears
☐ 1 cup distilled or cider vinegar (5% acidity)
☐ 1/4 cup Kosher dill pickle mix
☐ 2 cups water
☐ 2 wide mouth mason jars with lids

FUN FACT: Americans consume more than 5.2 billion pounds of pickles each year—that's over 20 billion pickles! Enough to reach the moon and back more than two times!

Pickling Steps (* = adult help needed)

1. Measure and add water, vinegar, and Kosher dill pickle mix into a medium saucepan.
2. *Stir briefly and then turn burner to high heat to bring to a boil (use stainless steel/enamel pot).
3. *Pour hot pickling liquid over cucumber spears in a large bowl. Let sit for about 30 minutes until the liquid cools to room temperature.
4. Place your jars on a flat surface. With clean hands, pack cucumber spears to fit tightly into the jars.
5. Ladle pickling liquid into jars leaving 1/2 inch from the top of the liquid to the top of the jar rim.
6. Use spatula to release any air bubbles that are trapped in the jar.
7. Wipe jar rims with clean, damp paper towel and close lids on jars tightly.
8. Place jars of pickles in a refrigerator. For best flavor, refrigerate for 3 weeks before eating, then share with family and friends! Eat them all within 3 months!

☐ **Option 3—Make Jam**

Recipe adapted from "Strawberry Freezer Jam" by the National Center for Home Food Processing and Preservation

Recipe:

☐ 2/3 - 1 cup crushed strawberries (1 qt whole)
☐ 2/3 cup sugar
☐ 2 T instant pectin
☐ 1 wide mouth mason jar with lid

TIP: If you choose other fresh-picked fruits (such as peaches, cherries, or other berries), then quantities may vary; follow the directions on your pectin package.

Jam Steps (* = adult help needed)

1. Wash strawberries in a colander.
2. Remove the green caps of the berries—hold a straw straight up against the tip of a strawberry and push the straw through the center of the berry until the leafy cap pushes off. *Carve out and discard bruised spots with a paring knife if needed.
3. Crush berries one layer at a time in a deep baking pan or cookie sheet using a potato masher. Put a damp dish towel under the pan to prevent sliding.
4. Add sugar and instant pectin to a large bowl and mix.
5. Add crushed strawberries to bowl.
6. Stir for 3 minutes. Use a ladle to scoop jam into clean 8 oz. jars leaving 1/2 inch from the top of the juice to the top of the jar rim (measure with ruler).
7. Use a spatula to release any air bubbles that are trapped in the jam. Check space between lid add or remove jam if needed to keep it 1/2 inch from the top.
8. Wipe jar rims with clean, damp paper towel to clean off any stickiness. Turn or press lids on freezer containers until tight.
9. Let jam stand 30 minutes.
10. Enjoy now, refrigerate for up to 3 weeks or freeze for up to 1 year.

RESEARCH MORE

- *nchfp.uga.edu/putitup.html* National Center for Home Food Procession and Preservation, *"Food Preservation for Youth: Put it Up" Curriculum*
- *"Refrigerator/Freezer Storage"* by Karen P. Penner, Kansas State University
- *"Safe Home and Food Storage"* by Peggy Van Laanen, Texas A&M University

*My child has successfully completed the Project Goals for the topic—**Food Preserving.***

Adult Signature: _____ Date: _____

(Complete SIX projects to earn your FOOD & NUTRITION award)

FOOD STORAGE TIP SHEET

Food	Cupboard/Pantry	Refrigerator	Freezer
Cereals	2-3 month (opened) 6-12 months (unopened)		
Quick breads, muffins	1 week		2-3 months
Waffles			1 month
Home baked Breads		1 week	2-3 months
Baked Cookies	1 week (Store in airtight container)		6-12 months
Pasta (dry)	1-2 years		
Rice	2 years (white) 1 year (brown)		
Butter/Margarine		3 months	12 months
Cheese (block)		1-2 months	6-8 month
Milk (fluid)		1 week	
Yogurt		1 month	
Eggs		2-5 weeks	
Ice Cream			1-2 months
Apples*	3-4 days	1-3 weeks	8-12 month
Bananas*	2-3 days to ripen	Refrigerate after ripe	
Berries*		1-2 days	8-12 months
Citrus Fruits*	3-4 days	3 weeks	4-6 months
Juices (canned/bottle)		1 weeks	12 months
Open Canned Fruit		3-5 days	1-2 months (will change texture)
Meats (beef, pork, lamb)		3-5 days	3-9 months
Meats (ground)		1-2 days	3-4 months
Meats (chicken, turkey)		1-2 days	6-9 months
Lunch Meats*		3-5 days (opened) 2 weeks (unopened)	1-2 months
Green Beans, Peas, Cauliflower, Peppers*		1 week	8-12 months
Carrots, Broccoli*		1 week	8-12 months
Tomatoes (ripe)*		5-6 days	8-12 months
Salad Greens, Celery, Cucumber, Cabbage*		1 week	
Potatoes*	1 week (white) 2 weeks (sweet)		
Peanut Butter	2-3 months (opened) 6-9 months (unopened)		
Pancake Syrup	1 year (unopened)	Check if needed on package	
Ketchup	1-2 years (unopened)	1 year (opened)	

**Storage times will vary if items are fresh, homegrown, or organic.*

