



University of California

Agriculture and Natural Resources | 4-H Youth Development Program

4-H Members Name: _____ **Club:** _____

FOOD PRESERVATION - Level 1

The Explorer level is the most basic of all levels. The youth begins to explore the boundaries of the project area, touching on many skills and knowledge areas that will be expanded later.

Date Initial

- ____ 1. Basic classification of foods - acid, low acid, etc.
 ____ 2. Kinds of canners and when to use which.
 ____ 3. About canning jars, lids, and other necessary equipment.
 ____ 4. About seasonal availability of food - when food is plentiful and least expensive.
 ____ 5. Know the recommended canning method, time, and temperature for fruits and tomatoes.

Demonstrate how to:

- ____ 6. Select fruit or tomatoes for canning, ability to use the water bath canner, wash and prepare fruit for canning (peeling, quartering, etc.), fill jars removing all air bubbles, check can for seal, and properly label and store the canned foods.
 ____ 7. Help can three fruits or two fruits and tomatoes.

JAMS AND JELLIES

- ____ 9. Methods for making jams and jellies and when the best fruits are available.

Demonstrate how to:

- ____ 10. Select and prepare fruit, make a freezer jam with commercial pectin. Select proper containers for freezer jam and properly label and store it. Judge jam for color, flavor, and texture.

Explore:

- ____ 1. Ways to serve jam to the family. List five.
 ____ 2. The cost of a jar of jam and compare this with an equal weight at the supermarket. -
 ____ 3. The keeping quality of jam. After several months, check for freezer

Learn:

- ____ 1. How drying preserves food.
 ____ 2. Different ways to dry food.

Do:

- ____ 1. Select fruit for making leather.
 ____ 2. Make and dry one or two different kinds of fruit leather. Try a combination of fruits.
 ____ 3. Select meat for jerky.
 ____ 4. Follow directions for sun or oven drying jerky.
 ____ 5. Select the proper packaging for leather and jerky.





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- ___ ___ 6. Label and store dried product as recommended.
- ___ ___ 7. Judge leather and jerky for color, flavor, and texture.

Explore:

- ___ ___ 1. The values of sun drying versus oven or dehydrator drying.
- ___ ___ 2. The effect of lemon juice or ascorbic acid on the color and flavor of fruit leather. Make one roll of fruit leather (light colored fruit) with lemon juice and one without. Compare.
- ___ ___ 3. The values of dried food as snacks.

FREEZING

Learn:

- ___ ___ 1. How freezing preserves food. Know the proper containers for the freezing process.
- ___ ___ 2. How to select food for freezing. How to seal containers for freezing. Why is the seal important?
- ___ ___ 3. How to prepare foods for freezing.

Demonstrate:

- ___ ___ 1. Quick freeze loose berries with dry sugar or without any sugar.
- ___ ___ 2. Freeze fruit in syrup containing crystalline ascorbic acid.
- ___ ___ 3. Judge frozen fruit for color, taste, and texture.
- ___ ___ 4. Make up a display of freezer containers.

Explore:

- ___ ___ 1. The differences in berries frozen at different temperatures. Which gives the best results?
- ___ ___ 2. The characteristics of freezer bum. How can this be avoided?
- ___ ___ 3. The cost of a home canned product versus a like product commercially canned.
- ___ ___ 4. Ways to serve the canned foods to the family. List five.

Project Leader's Signature of Completion: _____ Date: _____

4-H Program Representative Approval: _____ Date: _____

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FOOD PRESERVATION - Level 2

The Producer level builds and expands on the knowledge and skills learned in Level 1.

Date Initial

CANNING— Learn:

- _____ 1. How to acidify foods for canning by the water bath method.
- _____ 2. More about syrups to use in canning fruit and about canning fruit without sweetening.
- _____ 3. How to select reliable recipes for pickles and relishes.
- _____ 4. The variety of vegetables that are best for pickling.
- _____ 5. How to can fruit juice and tomato juice.
- _____ 6. To judge canned juices and relishes.

Do:

- _____ 1. Review what you learned about the classification of foods.
- _____ 2. Can a variety of fruits (three or four) using different strength syrups.
- _____ 3. Make quick pickled cucumbers.
- _____ 4. Make a pickled relish or salsa.
- _____ 5. Pickle a vegetable or mixture of vegetables.
- _____ 6. Prepare fruit or tomato juice and can it.

Explore:

- _____ 1. Canning fruit with fruit juice rather than syrup.
- _____ 2. Pickling fruit.
- _____ 3. Ways to teach the use of the water bath to a younger group.
- _____ 4. With your family, the annual need for canned fruit.
- _____ 5. The cost of home canned foods versus those available at the supermarket.
- _____ 6. Safety practices for pickling.
- _____ 7. Ways to use syrup left from canned fruit and ways to use leftover pickle brine.
- _____ 8. The effect of improperly storing canned fruits by placing one jar in a hot, damp location and another in a cool, dry, dark location. After several months, compare.

JAMS AND JELLIES— Learn:

- _____ 1. More methods for jam and jelly making.
- _____ 2. About straining juice for jelly.
- _____ 3. To judge jams and jellies.

Do:

- _____ 1. Make cooked jam with commercial pectin.
- _____ 2. Make cooked jelly with commercial pectin.

Explore:

- _____ 1. How to test fruit for acid and pectin content, and to determine which ones need added pectin or acid.
- _____ 2. Recipes for conserves, preserves and marmalade. Try one.



Head • Heart • Hands • Health



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DRYING— Learn:

- _____ 1. To sulfur light colored fruits for drying.
- _____ 2. To blanch vegetables before drying.
- _____ 3. Different types of antioxidants (anti-darkening agents); and the advantages and disadvantages of each.
- _____ 4. To package and store dried foods.
- _____ 5. About shade drying of herbs.

Do:

- _____ 1. Sulfur and dry a light colored fruit.
- _____ 2. Blanch and dry a vegetable.
- _____ 3. Dry a vegetable that doesn't require blanching.
- _____ 4. Dry herbs.
- _____ 5. Judge dried foods.

Explore:

- _____ 1. Two different ways of using dried vegetables.
- _____ 2. Time of re-hydration and quality of re-hydrated vegetables.
- _____ 3. The best way to dry vegetables; sun, oven, or dehydrator.
- _____ 4. Different ways of using dried fruits.

FREEZING— Learn:

- _____ 1. Which foods freeze and thaw well.
- _____ 2. How long different foods can be kept frozen without quality loss.
- _____ 3. How to thaw foods safely, and when it's okay to refreeze.
- _____ 4. About blanching vegetables for the freezer.
- _____ 5. About air-cooling versus water-cooling of blanched vegetables.
- _____ 6. About freezing prepared foods.

Do:

- _____ 1. Blanch and freeze three or four different vegetables.
- _____ 2. Freeze cookies, baked and unbaked.
- _____ 3. Freeze a homemade TV dinner.
- _____ 4. Properly thaw and prepare frozen prepared food. Serve.
- _____ 5. Prepare and serve frozen vegetables.

Explore:

- _____ 1. Quality losses of frozen foods (texture, color, taste).
- _____ 2. Ways to keep records of food going in and coming out of the freezer.
- _____ 3. The differences in blanched, unblanched, and overblanched green beans.
- _____ 4. Energy costs of frozen foods compared with other methods of preserving and storing foods.

STORAGE OF NUTS— Learn:

- _____ 1. About the effects of time, temperature, and oxygen on the flavor of nuts.
- _____ 2. Ways to prevent insect infestation.
- _____ 3. Ways to increase the shelf life of shelled nuts.

Do:





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- _____ 1. Store shelled nut meats in proper containers at room temperature, refrigerator temperature, and in the freezer. At 2 week intervals, taste and record any signs of rancidity.
- _____ 2. From the same group of nuts, store some in the shell in a cool, dry place. Check these at 2 week intervals for signs of rancidity. Store nuts in a modified atmosphere (if available) using dry ice (solid carbon dioxide). Record insect infestation and rancidity.

Explore:

- _____ 1. After completing this experiment, explain which is the best method for storing nuts, and why?

Project Leader's Signature of Completion: _____ Date: _____

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COMMENTS: _____





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FOOD PRESERVATION - Level 3

The Consumer level takes the member beyond the immediate project, out into the community, as they explore the project area in depth.

CANNING— Learn:

- _____ 1. How to acidify foods for canning by the water bath method.
- _____ 2. More about syrups to use in canning fruit and about canning fruit without sweetening.
- _____ 3. How to select reliable recipes for pickles and relishes.
- _____ 4. The variety of vegetables that are best for pickling.
- _____ 5. How to can fruit juice and tomato juice.
- _____ 6. To judge canned juices and relishes.

Do:

- _____ 1. Review what you learned about the classification of foods.
- _____ 2. Can a variety of fruits (three or four) using different strength syrups.
- _____ 3. Make quick pickled cucumbers.
- _____ 4. Make a pickled relish or salsa.
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Explore:

- _____ 1. Canning fruit with fruit juice rather than syrup.
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JAMS AND JELLIES— Learn:

- _____ 1. More methods for jam and jelly making.
- _____ 2. About straining juice for jelly.
- _____ 3. To judge jams and jellies.

Do:

- _____ 1. Make cooked jam with commercial pectin.
- _____ 2. Make cooked jelly with commercial pectin.

Explore:

- _____ 1. How to test fruit for acid and pectin content, and to determine which ones need added pectin or acid.



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_____ 2. Recipes for preserves, preserves and marmalade. Try one.

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