Name: ________________________ Age: ______

Club Name: _________________Years in 4H: ____

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Revised October 2006 by Vera Collins Lake County 4-H Secretary Available on line at http://lake.ifas.ufl.edu/4-H/Projects.htm
Acid Foods  Foods that contain enough acid to result in a pH of 4.6 or lower. Some foods may contain very little natural acid but have a sufficient amount of vinegar, citric acid or lemon juice added to them to be classified as acids in canning.

Antioxidant  Is an affect agent that inhibits the oxidation of cut fruits and vegetables as well as controls discoloration. Lemon juice, ascorbic acid or a blend of ascorbic and citric acid are all antioxidants.

Bacteria  Microorganisms which are found in the soil, water and air around us. In certain low-acid conditions, some bacteria can produce harmful toxins. Proper heat processing of low-acid foods in the steam-pressure canner destroys harmful toxins.

Band  A threaded metal band used in combination with a flat metal vacuum sealing lid to form a two-piece cap.

Blanch  To dip fruits and vegetables in boiling water to loosen their skins. Blanching vegetables in boiling water or steam also slows the action of enzymes.

Boil  To heat to 212°F at sea level.

Boiling-Water Canner  A deep kettle equipped with a jar rack and lid. It must be large enough to completely immerse capped canning jars, allowing 1 to 2 inches of water to cover jars. A boiling-water canner is required for heat processing high-acid foods.

Botulism  An illness caused by ingesting a toxin produced from the spores of Clostridium botulinum bacteria under conditions favorable for its growth. Proper selection, preparation, packing and heat processing destroys this bacterium in canned foods.

Cap  Two-piece metal closure used to form a vacuum seal on home canning jars. See Two-Piece Vacuum Cap.

Citric Acid  An acid derived from certain citrus fruits used to increase the acidity of tomatoes. It also controls discoloration of cut fruits.

Cool Place  A location with a temperature ideal for storing jars of home canned foods – usually between 50°F and 70°F.

Enzyme  A protein in foods that affects changes in flavor, color, texture, and nutritional value. The preservation methods for canning and freezing destroy the action of enzymes.

Headspace  The unfilled space in a home canning jar between the top of the food or liquid and the underside of the lid. Headspace is necessary for food expansion as jars are heated, and for forming a vacuum as jars cool.

Hot Pack  Filling hot jars with precooked, hot food prior to processing.

Jar  A glass container specially designed and heat-treated for use in home canning.

Lid  The flat metal disc with flanged edges, having a rubber-like sealing compound on its underside. Used as part of the two-piece vacuum cap for sealing home canning jars.
**Low-Acid Food** Foods having a pH of 4.6 or higher. To destroy harmful bacteria, their spores and the toxins they produce, low-acid foods must be processed in a steam-pressure canner at 240°F. Adjustments are necessary at elevations higher than 1,000 ft. above sea level.

**Microorganism** A microscopic living plant or animal which, if not destroyed by heat, can cause spoilage in canned and frozen food.

**Mold** Microscopic fungi that appear as fuzz on food. Molds may grow on acid foods like jams, jellies and canned fruits. Proper heat processing inhibits mold growth.

**Pectin** A natural substance, found in varying amounts in fruits, that acts to form a complex gelatinous structure. It is used to make jams, jellies and other soft spreads gel. Commercial powdered and liquid pectins are not interchangeable.

**pH** A measure of acidity or alkalinity. On a scale 0 to 14, a value of 7 is neutral, values lower than 7 are increasingly acidic, and values higher than 7 are increasingly alkaline. In canning, a food’s pH determines the appropriate processing method.

**Pickle Crisp** Pickle Crisp is Calcium Chloride. It is easy to make crispy, crunchy pickles with Pickle Crisp. Simply add Pickle Crisp to each jar of pickles before processing. Pickle Crisp does not burn like lime and there is NO messy clean-up.

**Pickling** Preserving using a brine or vinegar solution to decrease pH levels to 4.6 or lower. All pickled foods must be processed in a boiling-water canner.

**Pickling Lime** Pickling lime is also known as Calcium Hydroxide. It is a white powder that dissolves in cold water and is used only as a pre-soak to crisp pickles. Pickling lime is very caustic and may burn eyes, nose and skin.

**Processing** Sterilizing jars and the food they contain in a steam-pressure or boiling-water canner to destroy harmful microorganisms.

**Raw Pack** Filling jars with raw, unheated food prior to processing. This term is preferred over “Cold Pack.”

**Round Up Onto a Spoon** This is a term used to describe when a fruit butter has achieved the desired thickness. The mixture will separate as a spoon is stirred through it, leaving a path where the spoon just passed. Fruit butter will form a mound on the spoon.

**Simmer** To cook just below the boiling point in the range between 180°F and 200°F.

**Spice Bag** A muslin bag or cheesecloth square used to hold whole spices and/or herbs that is added to a mixture to extract flavorings during cooking.

**Steam-Pressure Canner** A heavy kettle fitted with a jar rack and a lid that can be locked in place and that has a safety valve, a vent and a pressure gauge. A steam-pressure canner is required for heat processing low-acid foods.

**Syrup** A water/sugar or juice/sugar mixture used to add liquid to canned or frozen products.

**Two-Piece Vacuum Cap** A metal closure for sealing home canning jars. It consists of a screw band and a flanged lid, the underside of which is coated with a rubber-like sealing compound.
**Vacuum Seal** The absence of normal air pressure in jars that are airtight. After heat processing and upon cooling, air is forced from the jar causing a vacuum seal. The sealing compound on the lid prevents air from reentering.

**Venting** Forcing air to escape from a jar by applying heat. Or, permitting air to escape from a steam-pressure canner.

**Yeast** Microscopic fungi that cause fermentation in foods. They are easily destroyed at a temperature of 212°F.

The air we breathe and all foods in their natural state contain microorganisms, such as molds, yeasts and bacteria as well as enzymes. Food spoils when enzyme, mold, yeast and bacteria growth is not controlled. Proper, safe home canning procedures control the growth of spoilage microorganisms, allowing us to keep food beyond its normal storage period. Home canning is not complicated. It is a simple procedure of applying heat to food in a closed jar in order to interrupt the natural decaying that would otherwise take place. It requires “processing” or “heat processing” foods according to up-to-date, tested home canning guidelines. Proper home canning includes:

* Placing prepared food in home canning jars.
* Heating the filled jars to the designated temperature using the correct type of canner for the food being processed.
* Processing the filled jars for the required time as stated by an up-to-date, tested recipe in order to destroy the spoilage microorganisms and inactive enzymes.
* Cooling jars properly, allowing the lids to vent excess air from the jars to form a vacuum seal.

When followed exactly, the processing methods and times of up-to-date, tested home canning recipes adequately destroy normal levels of heat-resistant microorganisms. After processing and upon cooling, a vacuum is formed and the lid seals onto the jar. This ensures that home canned foods will be free of spoilage when the jars are stored properly and remain vacuum-sealed. This seal prevents other microorganisms from entering and re-contaminating the food.

**Step-by-Step**

**What does canning do?** Canning is an important, safe method for preserving food if practiced properly. The canning process involves placing foods in jars or similar containers and heating them to a temperature that destroys micro-organisms that cause food to spoil. During this heating process air is driven out of the jar and as it cools a vacuum seal is formed. This vacuum seal prevents air from getting back into the product bringing with it contaminating micro-organisms.

**Safe Canning Methods** There are two safe ways of processing food, the boiling water bath method and the pressure canner method:

- **The boiling water bath method** is safe for tomatoes, fruits, jams, jellies, pickles and other preserves. In this method, jars of food are heated completely covered with boiling water (212°F at sea level) and cooked for a specified amount of time.
Pressure canning is the only safe method of preserving vegetables, meats, poultry and seafood. Jars of food are placed in 2 to 3 inches of water in a special pressure cooker which is heated to a temperature of at least 240° F. This temperature can only be reached using the pressure method. A microorganism called Clostridium botulinum is the main reason why pressure processing is necessary. Though the bacterial cells are killed at boiling temperatures, they can form spores that can withstand these temperatures. The spores grow well in low acid foods, in the absence of air, such as in canned low acidic foods like meats and vegetables. When the spores begin to grow, they produce the deadly botulinum toxins (poisons).

The only way to destroy these spores is by pressure cooking the food at a temperature of 240°F, or above, for a specified amount of time depending on the type of food and altitude. Foods that are low acid have a pH of more than 4.6 and because of the danger of botulism, they must be prepared in a pressure canner.

The low acid foods include:
- Meats
- Seafood
- Poultry
- Dairy Products
- All Vegetables

High acid foods have a pH of 4.6 or less and contain enough acid so that the Clostridium botulinum spores can not grow and produce their deadly toxin. High acidic foods can be safely canned using the boiling water bath method.

The high acid foods include:
- Fruits
- Properly pickled Vegetables

Certain foods like, tomatoes and figs, that have a pH value close to 4.6 need to have acid added to them in order to use the water bath method. This is accomplished by adding lemon juice of citric acid.

Canning Equipment

Water Bath Canners  A water bath canner is a large cooking pot, with a tight fitting lid and a wire or wooden rack that keeps jars from touching each other. The rack allows the boiling water to flow around and underneath jars for a more even processing of the contents. The rack also keeps jars from bumping each other and cracking or breaking. If a rack is not available, clean cotton dish towels or similar can be used to pack around jars. If a standard canner is not available any large metal container may be used as long as it is deep enough for 1 to 2 inches of briskly boiling water to cover the jars. The diameter of the canner should be no more than 4 inches wider than the diameter of your stove’s burner to ensure proper heating of all jars. Using a wash kettle that fits over two burners is not recommended because the middle jars do not get enough heat. For an electric range, the canner must have a flat bottom. Outdoor fire pits with a solid grate will also work however close attention is required to insure proper boiling temperature.
**Pressure Canners**  A pressure canner is a specially-made heavy pot with a lid that can be closed steam-tight. The lid is fitted with a vent (or pet-cock), a dial or weighted pressure gauge and a safety fuse. Newer models have an extra cover-lock as an added precaution. It may or may not have a gasket. The pressure pot also has a rack. Because each type is different, be sure to read the directions for operating.

**Jars**  Mason and Ball jars specifically designed for home canning are best. Commercial mayonnaise jars, baby food and pickle jars should not be used. The mouths of the jars may not be appropriate for the sealing lids and the jars are not made with heavy glass and they are not heat treated. Jars come in a variety of sizes from half-pint jars to half-gallon jars. Pint and quart jars are the most commonly used sizes and are available in regular and wide-mouth tops. If properly used, jars may be reused indefinitely as long as they are kept in good condition.

**Jar Lids**  Most canning jars sold today use a two piece self-sealing lid which consists of a flat metal disc with a rubber-type sealing compound around one side near the outer edge, and a separate screw-type metal band. The flat lid may only be used once but the screw band can be used over as long as it is cleaned well and does not begin to rust.

**Canning Utensils**  Helpful items for home canning and preserving:

- **Jar lifter:** essential for easy removal of hot jars.
- **Jar funnel:** helps in pouring and packing of liquid and small food items into jars.
- **Lid wand:** magnetized wand for removing treated lids from hot water.
- **Clean cloths:** handy to have for wiping jar rims, spills and general cleanup.
- **Knives:** for preparing food.
- **Narrow, flat rubber spatula:** for removing trapped air bubbles before sealing jars.
- **Timer or clock:** for accurate food processing time.

**Hot pads**  And  **Cutting board**

There are also many specialty utensils available like apple slicers, cutting spoons for coring and pit removal, corn cutters and fruit skinners.
Canning Fruit
Pressure Canning Fruit & Water Bath Canning

Equipment Preparation  Wash and assemble canning equipment, utensils, and containers. Make sure you have everything that you need before you start fruit preparation. Once you begin the canning process you need to work as quickly as possible without delays.

Canning Jars  Use authentic Mason or Ball canner jars. Examine and discard those with nicks, cracks and rough edges. These defects will not permit an air-tight seal. All jars should be washed in hot soapy water, rinsed well and then kept hot. This can be done in a dishwasher or by placing the jars in the water that is heating in your canner. The jars need to be kept hot to prevent breakage when they are filled with a hot product and placed in the kettle for processing. Jars that will be filled with food and processed for less than 10 minutes in a boiling water bath canner need to be sterilized by boiling in water for 10 minutes. NOTE: If you are at an altitude of 1000 feet or more, boil an additional minute for each additional 1000 feet of altitude. (i.e.) 5000 feet=5 minutes longer.

Fruit Preparation  Gather fruit and vegetables early in the morning when they are at their peak of quality. Do not use over-ripe products. Gather or purchase only as much as you can prepare within 2 or 3 hours. Wash products by either quick soaking and/or rinsing making sure to remove all dirt and sand including any chemicals that may be present. Dirt contains some of the bacteria that are hardest to kill. The cleaner the raw foods, the more effective the preserving process. Do not can decayed or damaged fruit. Do not let the food soak; it will lose flavor and nutrients.

Water Bath Canners  Fill the kettle with the appropriate amount of hot water and begin heating it on the range. The water bath requires 1 to 2 inches of water above the tops of jars. This can be difficult to determine before the filled jars are in place but after a batch or two you will learn how much water you have to add. It is always a good idea to have an extra small pot of water heating just in case.

Packing Jars

Raw Pack (Cold Pack)  Pack raw fruit into jars and cover with boiling hot sugar syrup juice or water. It is necessary to leave a head space between the lid and the top of food or liquid. This space is needed for the bubbling of liquids and fruit expansion. If the jars are filled too full the contents may overflow during processing. The amount of head space is usually between 1/8 and 1/2 inch. Check the individual recipe for the exact amount of head space.
**Hot Pack** Heat fruit in syrup, in water or over steam before packing. Fruits with a high juice content and tomatoes can be pre-heated without adding liquid and then packed in the juice that cooks out.

**To Fill Jars** Pack each jar to within 1/4 inch of top or as specified in individual recipe. For non-liquid foods (e.g., peaches) it is necessary to remove any trapped air bubbles by running a rubber spatula or table knife gently between the solid product and the edge of the jar. Add more hot syrup as needed. Wipe rim and screw threads with a clean damp cloth, place lid on top and screw bands on tightly and evenly to hold rubber sealing lid (or sealing ring) in place. Sometimes it is necessary to position and hold down sealing lid while you tighten the band to insure the lid is centered on the top of the jar. Do not over-tighten. Jars are then ready to be placed on the rack inside hot water canner.

**General Processing**

**Water Bath Method** Place jars on rack immediately after packing. Lower filled rack into canner. Jars should be covered by 1 to 2 inches of water. Add additional boiling water if needed. If you add more water, pour between jars and not directly on them (this is where the extra pot of heated water comes in handy). Cover pot with lid. When the water comes to a rolling boil, start to count the processing time. Boil gently and steadily for the time recommended for the food being processed. When the cooking time is up, remove jars at once and place on a rack or on towels away from heat and away from any draft.

**Test for Seal** After jars have cooled between 12 and 24 hours after processing, check seal. To do this press down on the center of the lid. The lid should be concaved and not move when pressed. Another method is to tap the lid with the bottom of a teaspoon. If the jar is sealed correctly, it will make a high-pitched sound. If it makes a dull sound it means the lid is not sealed or possibly that food is in contact with the underside of the lid. Do not be alarmed if during the first the first hour or so of cooling if you hear a popping sound come from the jars. This is a good sound to hear as it most often means that the vacuum effect has taken place which causes the lids to pop down and seal. After jars have cooled thoroughly, the screw bands may be removed if desired. Be sure to label canned jars with content and processing date. Store jars in a cool dark, dry place.

**Good Things to Know** Canned fruits often times will float if the sugar syrup is too heavy, if jars are packed too loosely or if air remains in the tissues of the fruit after processing. To avoid this use a light or medium sugar syrup, make sure fruit is firm and ripe and pack fruit tightly in jars without crushing. If fruit is not covered by liquid it may darken during storage but does not necessarily mean it is spoiled. To avoid this be sure fruit is covered by liquid while still leaving the recommended head space. Also be sure to remove trapped air bubbles with a slim rubber scraper, spatula or kitchen knife. To do this effectively, tilt the jar slightly while running the tool between the fruit and the edge of the jar and also pressing.
inward against the fruit a few times. Canned peaches, pears and apples may show a blue, red or pink color change after processing. This is sometimes the result of natural chemical changes that occur as fruits are heated. A spatula-shaped wooden spoon that has a flat end instead of rounded, is good to have for stirring sugar syrup in a flat bottomed pan during the cooking process. Avoid storing canned food near a furnace, water heater or hot water pipes. Jars need to be kept cool for longer storage life and to protect against spoilage. Be sure to store in a dry place. Rusting of the lid or band can cause seal to break. To avoid freezing in extremely cold storage environments, wrap canned jars with newspaper and place in heavy cardboard boxes. Cover boxes with a heavy cloth of blanket if necessary.

Sugar Syrup

<table>
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<tr>
<th>Syrup</th>
<th>Sugar</th>
<th>Water</th>
<th>Yield</th>
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<tbody>
<tr>
<td>Light</td>
<td>2 cups</td>
<td>4 cups</td>
<td>5 cups</td>
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<tr>
<td>Medium</td>
<td>3 cups</td>
<td>4 cups</td>
<td>5 1/2 cups</td>
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<tr>
<td>Heavy</td>
<td>4 3/4 cups</td>
<td>4 cups</td>
<td>6 1/2 cups</td>
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To prepare syrup, while heating water, add sugar slowly, stirring constantly to dissolve. Bring to a gentle boil. Fill jars while syrup is still boiling hot.

Why Keep Records

1. To have an account of all our 4-H accomplishments in one place.
2. Records point out the advantages and disadvantages of projects.
2. They reflect your interest as a 4-H member.
2. Records show self improvement and service to others.
2. To show others what you have done.
2. To train yourself for future work.

Tips for Record Keeping

- Read the whole project book.
- Tie a pencil on your project book
- Keep the book handy for you but out of reach of small children.
- Keep your records up to date.
- If you need more pages, make them yourself and fasten them in the book.
Project Goals: List your goals for taking this project, tell the things you wanted to do or learn in the project this year.

________________________________________________________________________________________________
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________________________________________________________________________________________________
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Project Objectives: List the small steps you will take to reach the goals, listed above.

________________________________________________________________________________________________
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Knowledge and Skills: List the things you learned in this project.
________________________________________________________________________________________________
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Canning Summary

<table>
<thead>
<tr>
<th>List foods canned</th>
<th>how many quarts</th>
<th>canned with help check</th>
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Did you enter canning Judging? ____________      County: ___      District: ___      State: ____
Awards won: ______________ ________________     ___________________
### Size and Scope:
List things you did in your project.

<table>
<thead>
<tr>
<th>Date</th>
<th>Activities performed or items produced, purchased, sold, etc</th>
<th>Value</th>
<th>Expense</th>
<th>Income</th>
<th>Profits</th>
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$ _______________ Opening Inventory

$ _______________ Expenses

--$ _______________ Closing Inventory

=$ _______________ Total Project Cost
What was one of the most interesting facts you found? _______________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

From reliable references study the nutritive value of canned fruit. Write about what you learned:
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

Tell how you will use what you learned in this project in the future: ___________________________
__________________________________________________________________________
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Frequently Asked Questions

When packing jars, is the head space really important? Yes, leaving the specified amount of head space in a jar allows a vacuum seal during processing. If too little head space is allowed the food may expand and bubble out when air is being forced out from under the lid during processing. The bubbling food may leave a deposit on the rim of the jar or the seal of the lid and prevent the jar from sealing properly. If too much head space is allowed, the food at the top is likely to dis-color and jars may not seal.

How long will canned food keep? Properly canned food stored in a cool, dry place will retain optimum eating quality for at least 1 year. Canned food stored in a warm place near hot pipes, a range, a furnace, or in indirect sunlight may lose some of its eating quality in a few weeks or months, depending on the temperature. Dampness may corrode bands or metal lids and cause leakage which will spoil the contents.

Do jars need to be sterilized before processing? Jars do not need to be sterilized before canning if they will be filled with food and processed in a boiling water bath canner for 10 minutes or more or if they will be processed in a pressure canner, however it is good practice to take the extra time and sterilize anyway. You can never be too careful when it comes to food safety. Jars that will be processed in a boiling water bath kettle for less than 10 minutes need to be sterilized by boiling them in hot water for 10 minutes before they’re filled.

Is it safe to use an oven for food processing? No. This can be dangerous because the temperature will vary according to the accuracy of oven regulators and circulation of heat. Dry heat is very slow in penetrating into jars of food. Also, jars explode easily in the oven.

Why do you have to exhaust a pressure canner? If the pot is not exhausted, the inside temperature may not correspond to the pressure on the gauge. Steam should be allowed to escape for 10 minutes before closing the valve.

Should liquid lost during processing be replaced? No. Loss of liquid does not cause food to spoil, though the food above the liquid may darken.

Is it all right to reuse jar lids and bands? Lids should never be used a second time since the sealing compound becomes indented by the first use, preventing another airtight seal. Screw bands may be reused unless they are badly rusted or the top edge is pried up which would prevent a proper seal.

Is it safe to use the open kettle canning method? No. In open kettle canning, food is cooked in an ordinary kettle, then packed into hot jars and sealed without processing. The temperatures obtained in open kettle canning are not hot enough to kill all the dangerous microorganisms in the food. Contamination may also occur during the transferring of food from the kettle into the jars.
What causes the undersides of jar lids to discolor? Natural compounds in some foods, particularly acids, corrode metal and make a dark deposit on the underside of jar lids. This deposit is harmless providing the jar has a good seal and the contents have been properly processed.

Questions About Canning

Is it safe to can food without salt? Yes. Salt is used for flavor only and is not necessary to prevent spoilage.

Is it safe to can fruits without sugar? Yes. Sugar is added to improve flavor, help stabilize color, and retain the shape of the fruit. It is not added as a preservative.

Can fruits and vegetables be canned without heating if aspirin is used? No. Aspirin should not be used in canning. It cannot be relied on to prevent spoilage or to give satisfactory products. Adequate heat treatment is the only safe procedure.

Is it safe to can green beans in a boiling water bath if vinegar is used? No. Recommended processing methods must be used to assure safety. Recommended processing times cannot be shortened if vinegar is used in canning fresh vegetables (this does not refer to pickled vegetables).

Should all vegetables be precooked before canning? For best quality, yes. However, some vegetables can be packed raw or cold into jars before being processed in the pressure canner.

What vegetables expand instead of shrink during processing? Corn, peas and lima beans are starchy and expand during processing. They should be packed loosely.

What causes corn to turn brown during processing? This occurs most often when too high a temperature is used causing caramelization of the sugar in the corn. It may also be caused by some minerals in the water used in canning.
Canning Meat And Fish

**Cold Pack Method** It is sometimes desirable for convenience to preserve meat or fish in jars, but you must realize the dangers which may accompany this method. Poisonings by canned meat are numerous. *Use only meat and fish in perfect condition.* Meat and fish can be parboiled or seared in fat. Seasonings and flavorings such as chopped onions, celery or bay leaves may be added. When the meat or fish is packed, the jars can be filled with a hot sauce and given the hot water bath with the meat. Canning of meat and fish in the home is not recommended on account of its dangers. If it is necessary to can meat or fish the following directions may be used: Have the meat in perfect condition. Remove large bones and excess of fat. Cut into convenient sized pieces. Sear, parboil, roast or stew, and add seasoning. Pack in sterilized jars. Fill jars if desired with boiling sauces, meat broth or boiling water and salt (2 teaspoons to 1 quart of canned meat or fish). Place rubbers on jars, adjust rubbers and partially seal. Hot water bath the jars. Remove jars from hot water bath. Seal jars hermetically. Cool off, label and store.

**Should giblets of chicken be canned in the same jar with chicken?** No. Their flavor may permeate other pieces of chicken in the jar.

**Is it safe to can meat and poultry without salt?** Yes. Salt is used for flavor only and is not necessary for safe processing.

**Jalapeño Jelly**

- 3/4 pound jalapeño peppers
- 6 cups sugar
- Green food coloring (optional)
- 2 cups cider vinegar, 5% acidity, divided
- 2 pouches Fruit Jell® Liquid Pectin

**Instructions** Prepare jars and closures according to instructions found in Canning Basics. Wash peppers; drain. Remove stems and seeds. Puree peppers and 1 cup vinegar in a food processor or blender. Combine purée, 1 cup vinegar and sugar in a large saucepot. Bring to a boil, boil 10 minutes, stirring constantly. Stir in liquid pectin. Return to a rolling boil. Boil hard 1 minute, stirring constantly. Remove from heat. Skim foam if necessary. Stir in a few drops of food coloring, if desired. Ladle hot jelly into hot jars, leaving 1/4 inch headspace. Wipe rim and threads of jars with a clean damp cloth. Place lid on jar with sealing compound next to glass. Screw band down evenly and firmly just until a point of resistance is met finger tip tight. Process 10 minutes in boiling water canner. Yield: about 5 half-pints.

Did you make this recipe? _______ How did it turn out?_______________________________________________

____________________________________________________________________________________________

*Always ask an adult to assist you especially when using a pressure canner.*
Green Beans

2 pounds green beans per quart jar Salt is optional

Prepare jars and closures according to instructions. Wash and rinse beans thoroughly. Remove string, trim ends and break or cut freshly gathered beans into 2 inch pieces.

Mixed Vegetables

7 cups sliced carrots 7 cups cut whole kernel corn
7 cups shelled lima beans 6 cups cubed zucchini
1 cup chopped sweet red pepper

Prepare jars and closures according to instructions. Combine vegetables in a large sauce pot; add water to cover. Boil vegetables 5 minutes. Pack hot vegetables and liquid into hot jars, leaving 1 inch headspace. Remove air bubbles with a non-metallic spatula. Wipe jar rim clean. Place lid on jar with sealing compound next to glass. Screw band down evenly and firmly just until a point of resistance is met, fingertip tight. Process pints 55 minutes, quarts 85 minutes at 10 pounds pressure in a steam pressure canner. Yield: about 14 pints or 7 quarts.

Always ask an adult to assist you especially when using a pressure canner.
What was most exciting about your project?
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
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____________________________________________________________________________________

What would you do different if you were to do this project again?
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
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____________________________________________________________________________________

Now that your project is complete, what are you most proud of?
____________________________________________________________________________________
____________________________________________________________________________________
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# Project Summary

## Leadership

List your accomplishments both in this project and as a member of your club, county council, etc. *Ex: participate in TLC as the delegate to District VIII meeting*

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## Community Service

List in detail your individual or club community service accomplishments and the purpose for the service. *Ex: Our 4-H Club saw a need for a food drive & collected 200 items that were delivered to the needy.*

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### PRESENTATIONS

List in **detail** the demonstrations, speeches, exhibits, workshops where you presented. Also list the topic of your presentation & the level at which you participated at. *Ex: County Events Demonstration -“How to prepare your Rabbit for Show” Check County*

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### CLUB ACTIVITIES

What activities did you participate in with your 4-H Club. *Ex: Workshops, fair, field trips, judging trips*

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NEWSPAPER Articles and/or Pictures of your 4-H Project

NEWSPAPER Articles are extra and will not be deducted.

If you or your 4-H club was in the newspaper please attach the article here.

For project pictures, be sure to include captions describing each photograph. If possible show ( The Beginning of your project ( work being done and ( your completed project.

(Minimum of 3 pictures ). You may insert pages as needed.
Your 4-H Story

In your story include as many of the following as possible.

n What 4-H work has meant to you.

n What you have learned.

n What safety practices you used in your project.

n How you managed your project.

n What you can do to improve your project next year.

n About your trip to Congress, camp, the fair, etc.

n What you did to “Make the Best Better”.

n About any other 4-H experiences.