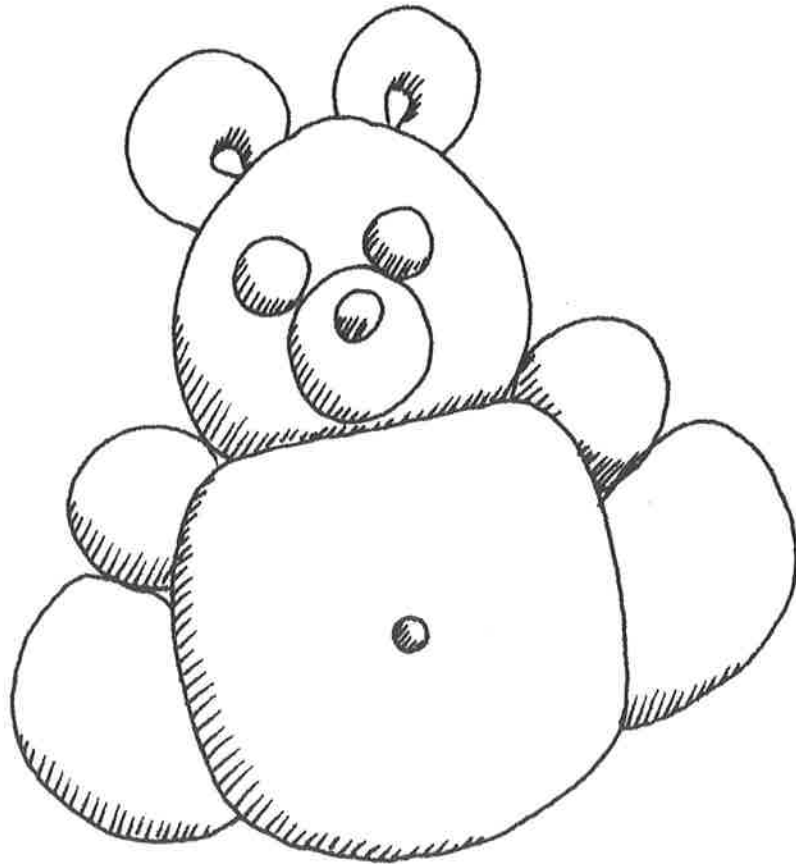




# ***Creative Ideas***

*Using frozen dough*



# BREAD



## FROZEN BREAD DOUGH 4-H PROJECT

### Introduction:

What challenges will I have learning to use frozen bread dough? This is a question you may have as you start this project. Perhaps this product is familiar to you and you are curious to know more about it. The pleasure of working with dough is probably appealing to you and the variety of products you can enjoy is an incentive for you to do this project. This project is planned for beginners. It teaches food-handling skills while emphasizing citizenship values. Sixth graders would be comfortable with the activities or younger 4-Hr's with teen or adult guidance could benefit from completing this project. A more advanced project is being planned.

In this project you will learn:

1. How you can become a better frozen food shopper.
2. How the food label can help you make healthy food choices.
3. How bread products fit into the Food Guide Pyramid
4. Some science principles from frozen dough experiments.
5. Frozen dough can be baked, fried and boiled, formed into many shapes, flavored with various spices and other foods, cooked in conventional ovens, speed ovens, dutch ovens, solar ovens or over a campfire.
6. To judge the products you make.
7. To teach a skill or share information you learned.
8. Exhibit your completed record book and one or more products you have made or an exhibit showing your work.

We hope this adventure will be fun and give you the opportunity to help your community, as well as your family, have creative experiences and good health information.

Ethel Farnsworth  
Home Economist



## FROZEN BREAD DOUGH 4-H PROJECT

# LESSON 1 – LEARNING FROM LABELS

### ADVANCE PREPARATION:

- Display frozen dough bread wrappers.
- Prepare for a visit to a food store.

### WHAT TO LOOK FOR IN THE FROZEN DOUGH FREEZER CASE:

1. Size and location of frozen dough display.
2. Condition of the product (dough should be solidly frozen, rolls or loaves should be separate, not stuck together).
3. Information on the package. Is the new nutritional information included? Weight? Guarantee? List other useful information.
4. Record the price and the weight.

### IN-STORE BAKERY VISIT:

1. Size and location
2. Display of products
3. Variety
4. Information available
5. Record the price and the weight

### COMMERCIAL BAKERY SECTION:

1. Size and location
2. Number of brands
3. Package information
4. Record the price and the weight

### PURPOSES:

1. To become acquainted with the proper handling of frozen dough.
2. To expose participants to comparative shopping skills.
3. To learn what information is on a food label.
4. To learn how to use this information.
5. To compute the cost (per ounce and per pound). (This information is used in the next meeting.)

### INTRODUCTION:

The new food label addresses several health benefits, such as decreased rates of

#### Nutrition Facts

Serving Size 1 slice (50g)  
Servings Per Loaf 9  
Servings Per Package 45

#### Amount Per Serving

**Calories** 140    Calories from Fat 20

#### % Daily Value\*

<b>Total Fat</b> 2g	<b>3%</b>
Saturated Fat 0g	<b>0%</b>
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 280mg	<b>12%</b>
<b>Total Carbohydrate</b> 24g	<b>8%</b>
Dietary Fiber 2g	<b>8%</b>
Sugars 2g	

#### Protein 5g

Vitamin A	0%	•	Vitamin C	0%
Calcium	0%	•	Iron	10%

\*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

		Calories: 2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:  
Fat 9 • Carbohydrate 4 • Protein 4

heart disease, cancer, obesity, osteoporosis and high blood pressure, all major killers. Serving sizes are standardized to show the amount of foods we normally eat. Reading the label helps consumers to make wise shopping choices.

The label states the number of calories per gram of fat, carbohydrate, and protein. The list of nutrients includes those most important for health.

### SUGGESTED ACTIVITIES:

1. Field trip report (oral or written).
2. Collect articles on labeling for a poster or collage.
3. Complete the "Compare and Choose" diagram below:

#### COMPARE and CHOOSE

The more you read - the more you know. Labels can help you make wise food choices. You can learn a great deal by reading the nutrition information and the ingredient listing. Here are two similar foods. Fill in the blanks below. Then answer the questions.

frozen  
bread  
dough



1. Brand
2. Price per ounce
3. Serving Size
4. Calories
5. Protein
6. Carbohydrate
7. Fat
8. Sodium
9. Fiber
10. Iron



wrapped  
commercial  
bread

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Which product would you choose? Why?



## FROZEN BREAD DOUGH 4-H PROJECT

# LESSON 2—SAFETY, ECONOMY, FUN

### ADVANCE PREPARATION: (ITEMS NEEDED DEPEND UPON THE CHOICE OF ACTIVITY)

1. Paper, ruler and pencil to draw a floor plan of your kitchen.
2. Materials to construct a pot holder.
3. Materials to make a rug non-skid.
4. Information on the proper care of bread boards.
5. Check your information from the store visit in meeting #1.
6. Ingredients and equipment needed for the recipe or sculpture you have chosen to make.

### PURPOSE:

1. To make the participants aware of possible dangers while working in a kitchen.
2. To recognize that choosing frozen bread dough may result in savings.  
(Another way to save money is to use leftover dry bread and bread crumbs.)
3. To show that using frozen bread dough can be easy, fun, versatile and rewarding.

### INTRODUCTION:

Most accidents occur in the home, therefore safety is important. Kitchen accidents rank second to bathroom accidents. Using pot holders to remove hot pans from the stove or oven is very important. Using a towel or apron can cause a burn or a fire. A container of baking soda should be kept near the cook top to keep a fire from spreading. A sturdy stool is better than a chair for reaching, especially if it has non-skid legs. Bread boards used for meat (especially chicken) must be sterilized before using for cutting bread.

To compare different breads many things must be considered. Shopping time, freezer space, quality of ingredients (enrichment, absence of preservatives) weight and size, convenience, and versatility are some of the considerations.

It is important not to waste food. Care of baked products that contain no preservatives means refrigeration if not used in two or three days, depending on conditions, such as humidity. Stale bread has many delicious uses, dried and made into crumbs, it keeps well. Bread, after baking, may also be frozen for future use. Sculptured dough should be eaten, some, such as the alligator, can be sliced, and filled for sandwiches.



### SUGGESTED ACTIVITIES:

1. Draw a floor plan of your kitchen. Make a list of changes that will make your kitchen safer.
2. Make a pot holder. Make a rug skid proof.
4. Make a comparison chart showing the cost of bread from different sources.
5. List advantages and disadvantages when using frozen bread dough.
6. Prepare a product using one of the recipes listed (or another approved by your leader).



### RECIPES:

#### 1. Crumb Griddle Cakes

**1/2 cup flour, 2 teaspoons baking powder, a pinch of salt, 1/2 cup bread crumbs, 1/2 cup milk, 1 tablespoon melted margarine, 1 egg.** Soak bread crumbs in milk and melted margarine. Add egg and flour, baking powder and salt that have been sifted together. Mix and bake on a hot griddle that has been sprayed with a non-stick cooking spray. Bacon bits may be added to the batter or sprinkled on top. Makes 4 small pancakes.

#### 2. Apple Betty

**1 1/2 cups dry bread crumbs, 4 tablespoons melted margarine, 1 teaspoon cinnamon, 3 cups sliced apples, 1/3 cup brown sugar, 3/4 cup water.** Mix apples, sugar, cinnamon, and half of the crumbs. Place in a baking pan that has been sprayed with a non-stick cooking spray. Pour 3 tablespoons melted margarine and water over the top. Mix the remaining crumbs with 1 tablespoon melted margarine and sprinkle over the top. Bake at 350 degrees for 30-40 minutes.

#### 3. Croutons

**2 cups dry bread, cubed, 3 tablespoons Italian dressing.** Preheat the oven to 325°F Spread the cubes on a baking sheet that has been sprayed with a non-stick cooking spray and brush with the dressing. Bake uncovered until crisp and golden. Stir once half way through the baking process. Cool, then store in an airtight container.

#### 4. Lemon or Orange Pull-aparts

**6 dinner rolls, thawed, 1 lemon or orange rind grated, 1/4 cup sugar, 2 tablespoons melted margarine.** Mix the orange or lemon rind with the sugar. Cut the rolls in half and place in a small baking pan that has been sprayed with a non-stick cooking spray. Pour the margarine over the rolls. Sprinkle with 1/2 of the rind and sugar mixture. Cover with plastic wrap and allow to double in size. Remove plastic wrap. Sprinkle the remaining sugar/rind mixture over the top. Bake at 350°F for 20 minutes. Remove from pan. Combine 1/2 cup of powdered sugar with 1 tablespoon of citrus juice and 2 teaspoons of soft margarine. Pour over the rolls while they are

hot. Sprinkle with chopped pecans. Serve warm.

## TURTLE

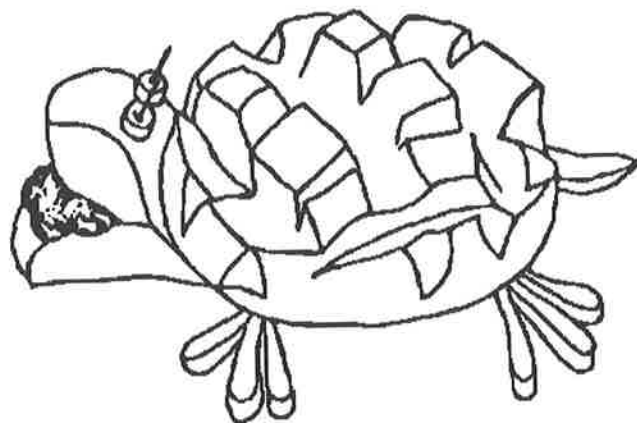
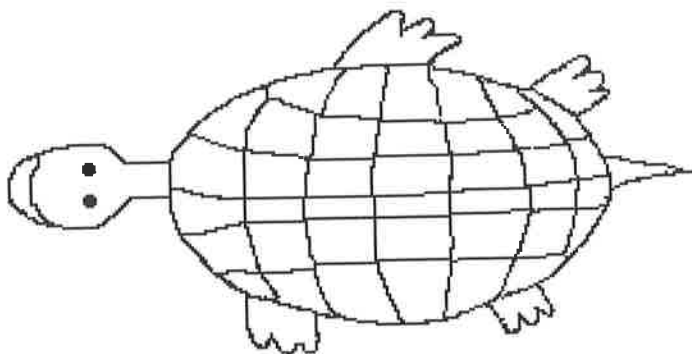
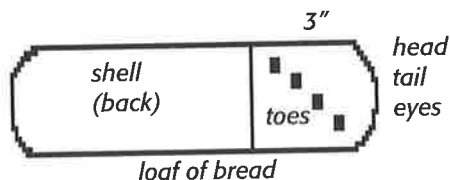
**1 Loaf Frozen White Bread Dough (thawed, but still cold)**

**1 Egg, Beaten**

**Poppy Seeds**

**1 Raisin**

Spray baking sheet with non-stick cooking spray. Turtle will be formed on baking sheet. Cut a 3" section from a thawed loaf of bread dough for the head, eyes, tail, and 4 sets of toes. Set aside. With the remaining dough, shape a round loaf for the body. Score the body with a sharp knife making 1/4" deep slits. Brush with egg and sprinkle with poppy seeds. Cut the 3" section in half diagonally. Using 1/2 of a half, cut a thin sliver for tail. Cut raisin in half and place for eyes. Cut the head with scissors to form a mouth. Prop the mouth open with a ball of foil. Form a neck by pinching and pulling; place 1" of neck under body. Cut the other half into 4 equal sections. Using scissors, cut 3 toes on each section. Place toes so they barely touch the body. Brush with beaten egg and cover with plastic wrap that has been sprayed with non-stick cooking spray. Let rise 45 minutes and bake at 350°F 25 minutes or until gold-





## FROZEN BREAD DOUGH 4-H PROJECT

# LESSON 3 THE FOOD GUIDE PYRAMID

### ADVANCE PREPARATION:

Thaw 1 loaf of white dough in refrigerator overnight.

Gather ingredients to represent the 6 categories of the Food Guide Pyramid.

### A. EXAMPLES OF FOODS TO USE:

1. box cereal, oatmeal, bread crumbs
2. tomatoes, red, green or yellow peppers, broccoli, parsley
3. raisins, apple pieces, dried bananas
4. grated cheese, dried milk, buttermilk or yogurt
5. bacon bits, nuts, pieces of meat, fish, poultry or hard cooked egg
6. sugar (colored or brown), honey, molasses, butter, margarine

### B. UTENSILS AND SUPPLIES NEEDED:

1. large baking sheet
2. non-stick cooking spray or oil and brush
3. a cooling rack
4. a bread board
5. a small amount of flour (1 or 2 tablespoons)
6. toothpicks

### PURPOSES:

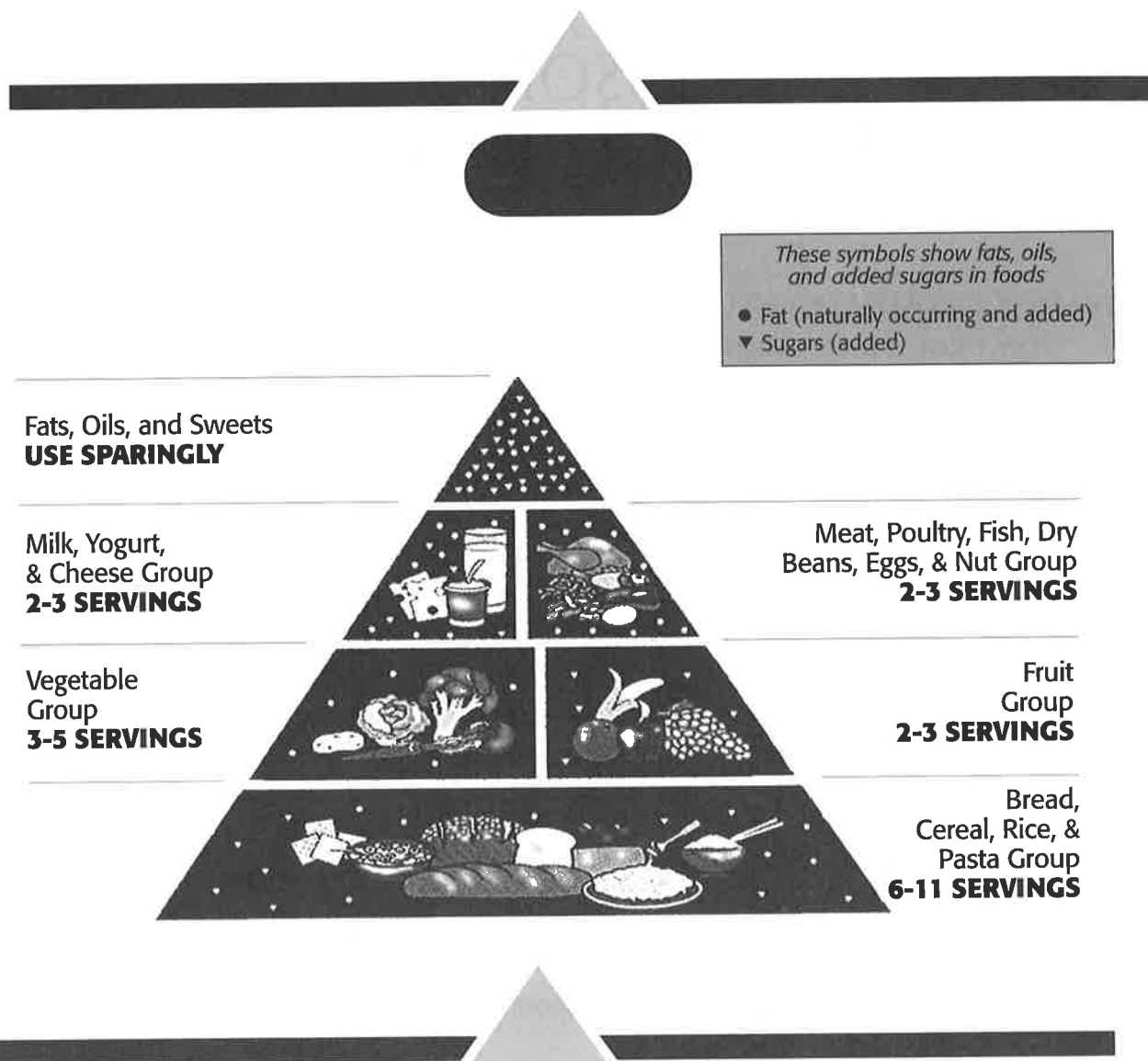
1. To become acquainted with the guide to daily food choices. The Food Guide Pyramid emphasizes foods from the 6 food groups shown in proportion to our daily needs. Each food group provides some, but not all, of the nutrients you need. Foods from one group cannot replace those from another. No one food group is more important than another—for good health you need them all.
2. To become acquainted with frozen bread dough.





# FOOD GUIDE PYRAMID

## A GUIDE TO DAILY FOOD CHOICES



UNITED STATES DEPARTMENT OF AGRICULTURE RECOMMENDATION

### INTRODUCTION:

The Pyramid is an outline of what to eat each day. It is a general guide that lets you choose a healthful diet that is right for you. The Pyramid calls for eating a variety of foods to get the nutrients you need and also the right amount of calories to maintain a healthy weight. You need 6-11 servings from the bread group. Frozen bread dough is one way to help fulfill this requirement.

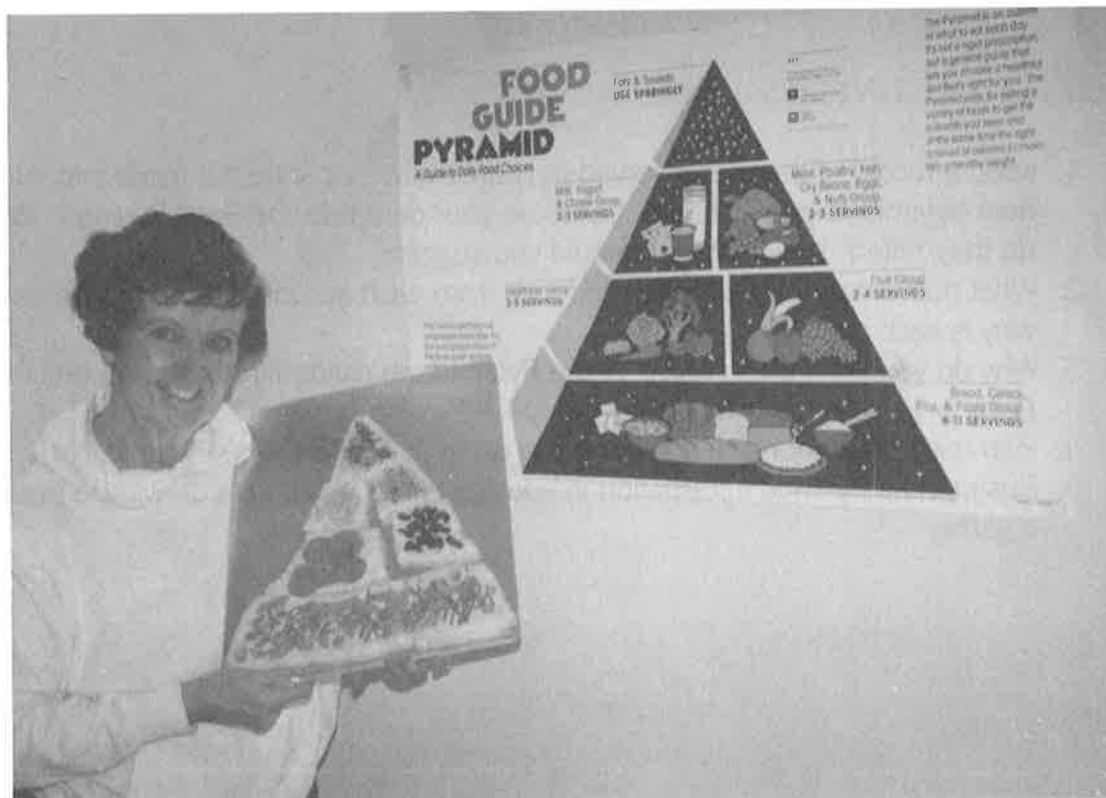
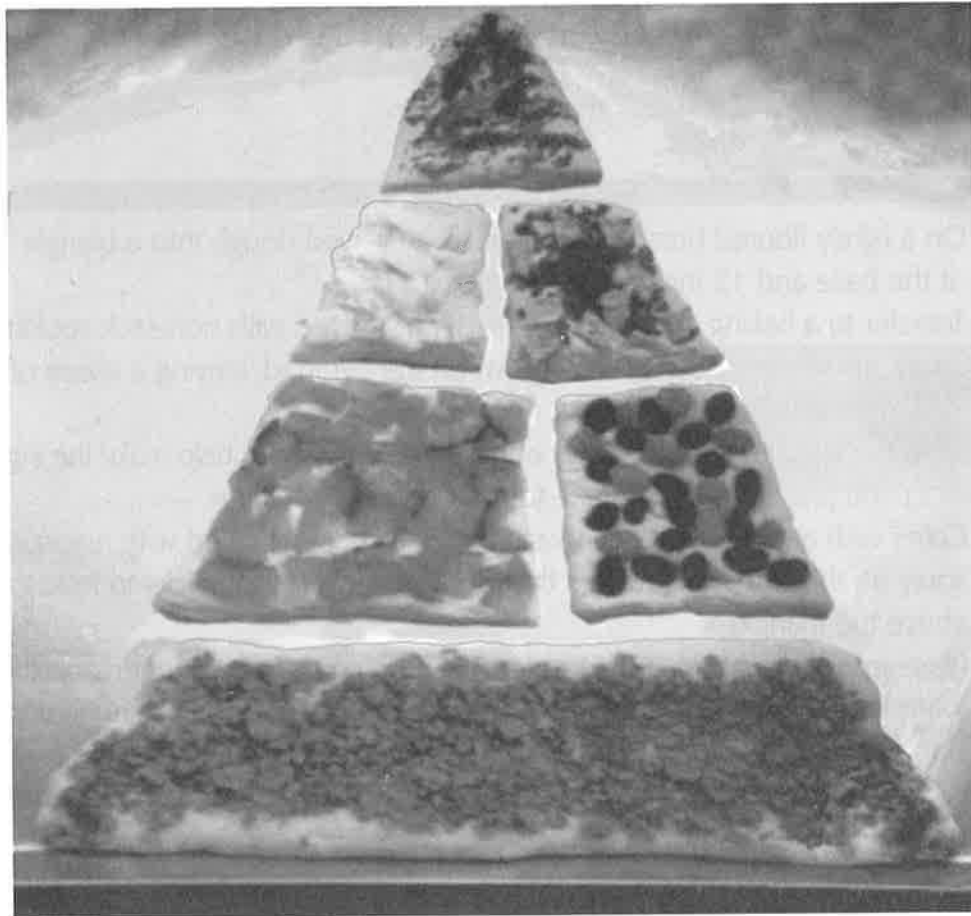
## MAKING THE PYRAMID

### DIRECTIONS:

1. On a lightly floured bread board, form the thawed dough into a triangle 12 inches at the base and 12 inches from top to bottom.
2. Transfer to a baking sheet which has been sprayed with non-stick cooking spray. Divide into sections as shown on the pyramid, leaving a space of about 1/2 inch between the sections.
3. Spray the sections, or brush lightly with milk or oil (this is to help make the ingredients stick) and place the appropriate toppings on each section.
4. Cover with a sheet of plastic wrap which has been sprayed with non-stick cooking spray on the side that touches the foods and insert toothpicks to hold the wrap above the triangle.
5. Place in a warm place (80°F) to raise. The time needed depends on the warmth and humidity of the room. Allow about 1 hour. If placed in a warm, not hot, oven with a pan of hot water, the rising time can be decreased.
6. When double in size (the dough will show a finger imprint when pressed lightly) bake in a preheated oven at 350°F for about 25 minutes or until brown on the bottom.
7. Cool on a rack away from drafts.
8. If you have used meat or eggs as toppings for your pyramid, store it in the refrigerator after cooling. Do not leave the pyramid at room temperature for more than 2 hours.

### SUGGESTED ACTIVITIES:

1. Keep a record of the meals served in your family. Separate the foods into your own pyramid or other design. Compare your design to the Food Guide Pyramid. Where do they differ? What changes would you suggest?
2. What nutrients are included in the foods from each section of the pyramid and why is each important?
3. Why do you think the sections of the pyramid are divided in those proportions? (Why 6-11 servings in the lower group—2-3 in the upper, etc.?)
4. Plan menus for your family for one day using the Food Guide Pyramid.
5. Illustrate the pyramid information in another form: a poster, a drawing, a puzzle, or a game.





en brown. Remove foil from mouth before serving.

## FROZEN BREAD DOUGH 4-H PROJECT

# LESSON 4 — INGREDIENT EXPERIMENTS

### EXPERIMENT #1 "DISCOVER GLUTEN"

#### ADVANCE PREPARATION:

Thaw 1 loaf of frozen white bread dough and bring to room temperature.

#### UTENSILS AND SUPPLIES NEEDED:

cloth towel or napkin  
aluminum foil, non-stick vegetable spray  
small fry pan and 2 teaspoons of oil  
1 large, deep kettle or basin  
1 large sieve or strainer to fit the above kettle or basin  
1 scale that weighs ounces  
plastic wrap  
a knife  
1 small bread pan (sufficient for an 8 ounce loaf)



#### PURPOSE:

To demonstrate the properties of gluten and their importance in bread making. Please be aware that several gallons of water are used in this experiment. Discuss ways to use rather than waste this water.

#### INTRODUCTION:

There is present in plants (also in animals) a substance which is without doubt, the most important of all known substances in living matter and without which life would be impossible. The material is called PROTEIN. Gluten is the protein in bread. Bread flour is made from hard wheat, rich in gluten, which makes the mixture elastic so it can expand successfully.

## DIRECTIONS:

1. Cut the thawed loaf of dough in half. Check the weight.
2. Work one of the halves of dough in your hands under running, cool water over the sieve that has been placed over the kettle in the sink.  
(Note the color of the water)
3. Continue to wash the dough until the water runs clear; what is left in your hand is the gluten. (Note the consistency of the gluten.)
4. Dry the gluten on a cloth towel or napkin and weigh it.
5. Form the reserved dough into a small loaf. (Note the difference between it and the gluten mass in weight, color, and texture—"feel the difference").
6. Raise the small loaf until double in size and place it and 1/2 of the gluten (placed on a piece of foil) in a preheated oven (350°F) and bake both for 15 minutes.

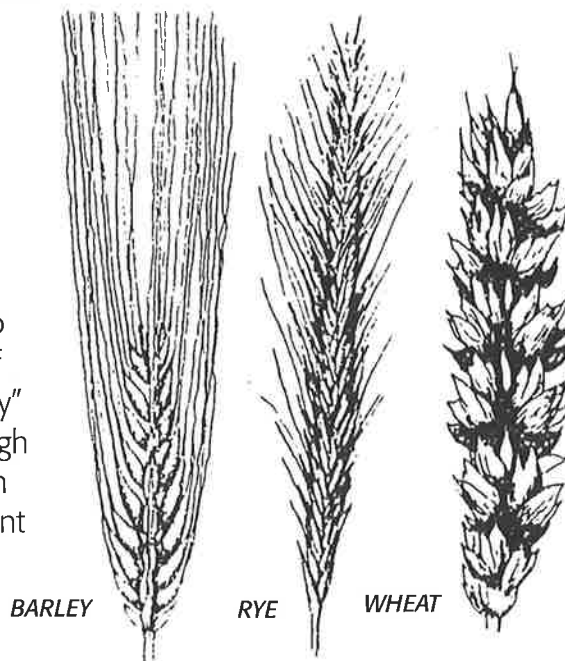
Slice the remaining gluten and fry in a little oil. Taste both the fried and the baked gluten and note the flavor, shape, color and texture of the gluten.

## SUGGESTED ACTIVITIES:

1. Collect some of the liquid from washing the dough and note the color. Why is the liquid milky in color? How does the amount of this substance compare with the amount of gluten?
2. How much gluten is contained in a loaf of dough? Construct a chart or wheel to show the proportions.
3. How do your results compare with the information on the printed label from the package?
4. Make a list of the nutritional values of protein.
5. What are your protein needs?

## EXPERIMENT #2 "THIRSTY EXPERIMENT"

You can see for yourself how much gluten there is in different kinds of flour with a simple experiment. You need an accurate measuring cup plus one cup of rye or barley flour and one cup of wheat flour for this experiment. Gluten is a "thirsty" protein—it soaks up a lot of water. First, mix enough water with 1 cup of wheat flour to make a smooth dough-like clay. Next, mix exactly the same amount of water with the rye or barley flour. You will find that it stays sticky and wet—there is not enough gluten to soak up all the water.



## EXPERIMENT #3 "YEAST IN BREAD MAKING"

### ADVANCE PREPARATION:

- |  |                              |
|--|------------------------------|
| 1 package dry yeast(1 Tbs)             | $\frac{3}{4}$ cup warm water |
| 1 teaspoon sugar                       | 1 empty pop bottle           |
| 1 thermometer                          | clock or watch               |
| 1 balloon to fit the top of the bottle |                              |



### PURPOSE:

A dramatic demonstration, showing the rising power of yeast and the part played by time, temperature and added ingredients.

### INTRODUCTION;

Yeast is alive. It is a one-celled plant that grows rapidly with moisture and warmth. As it grows carbon dioxide and alcohol are produced. Carbon dioxide causes stretching. High temperatures drive off the alcohol and kill the yeast. The gas produced by the yeast, moisture and warmth cause dough to rise.

About  $2\frac{1}{2}$  teaspoons of active dry yeast will raise a 16 ounce loaf of frozen bread dough. Time and temperature play an important part in bread rising. Usually 7-8 hours are needed to raise a frozen one pound loaf of dough at room temperature. Less rising time is needed for frozen rolls. Usually extreme cold or heat kills yeast, but the yeast in frozen dough is protected.

### DIRECTIONS:

1. Mix  $\frac{1}{4}$  ounce package (1Tbs ) of dry yeast with 1 teaspoon sugar and dissolve the mixture in  $\frac{3}{4}$  cup of warm (85°F) water.
2. Pour into the pop bottle and place the balloon over the opening. If necessary, secure with an elastic band.
3. Place in a warm area, a sunny window, a bowl of hot water, or a warm not hot, oven and record the time.

### SUGGESTED ACTIVITIES:

1. Answer the following questions:
  - (1) How long did it take for the balloon to fill?
  - (2) Why is this expanding action important in bread making?
  - (3) What substance fills the balloon?
  - (4) What do you think is the importance of the sugar?
  - (5) What effect do you think too much yeast in the bread dough might have?
2. As the balloon collapses, move it to a bowl of very hot water. Explain what happens and the significance of this action.

## EXPERIMENT #4 "DISCOVERING DIFFERENT METHODS USED TO RAISE DOUGH."

### PURPOSES:

1. You will discover the skill and pleasure that comes from working with dough. You may become more observant and curious.
2. You will gain confidence to create shapes of your own.
3. You will discover different methods to use to raise bread dough.

### INTRODUCTION:

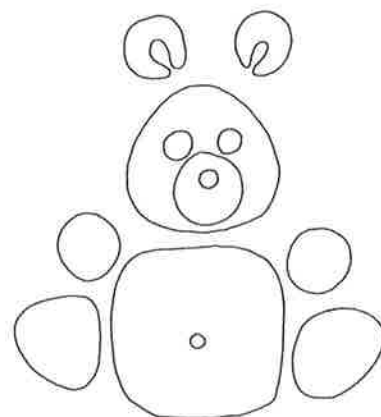
Frozen bread dough preparation can be a social, creative activity. It lends itself to enhancing leadership abilities. It produces a warm friendly atmosphere. It invites participation. The aroma of baking bread is considered to help create positive feelings, so much so, that manufacturers are copying the scent for house hold sprays. In this segment you may make 3 cinnamon bears or a caterpillar.

### DIRECTIONS:

#### BEARS

Spray baking sheet with non-stick cooking spray. Bear will be formed on baking sheet. Mix  $\frac{1}{4}$  cup of sugar with  $\frac{1}{2}$  teaspoon of cinnamon. Semi thaw 9 Texas rolls for 3 bears. For each bear, cut 2 rolls in half. Use the whole roll for the body. One half roll makes the head (when forming ball, constantly tuck dough under to get a smooth top finish). Cut the other pieces in half again. Form 2 into arms, 2 into legs. Cut the other piece in half and form 2 ears. Attach to the body using a small amount of milk or water. From the remainder, form a pea sized ball and fit it into the body for a belly button. Form a snout by placing one tiny ball on a ball that is a little larger. Attach in place. Cut indentations for the eyes and mouth. Fit tiny raisins into the eye spaces. Complete two more bears. Brush each bear with beaten egg. Cover two with plastic wrap that has been sprayed with non-stick cooking spray and place in a warm place to raise. Place the third bear in a warm, not hot oven. Do not cover but place a pan of very hot water in the oven with the bear.

When the bears have doubled in size, sprinkle with the sugar cinnamon mixture. Preheat the oven to 350°F, remove plastic wrap and bake for 10 minutes. Make a little tent of foil to fit the snout of each bear, (to prevent over-browning) and bake for another 5 minutes or until well done. Place the bears on a cooling rack. When cool, tie a ribbon bow on each bear or bows around the ears.

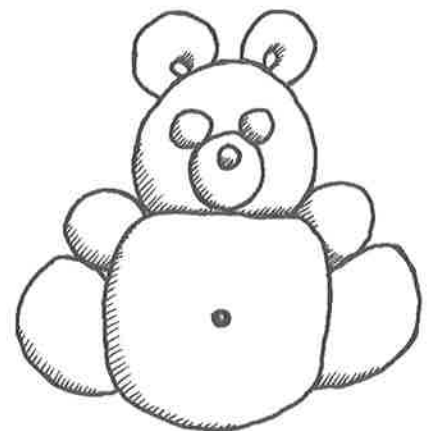
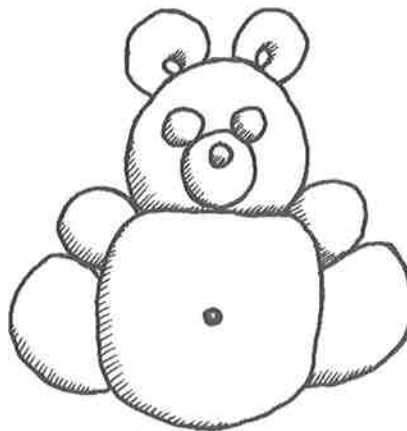
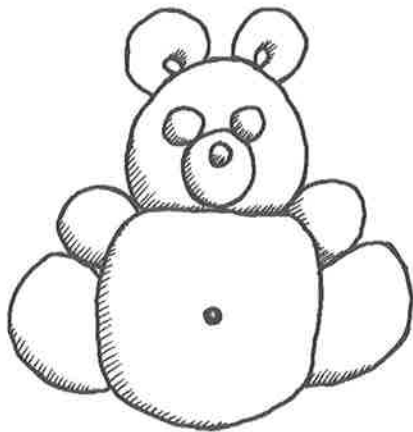
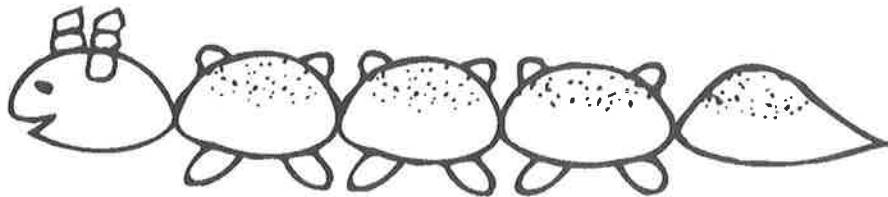


## CATERPILLAR

To make the caterpillar, cut 3 semi thawed rolls in half and form 5 smooth balls. When forming balls, constantly tuck dough under to get a smooth top finish. Cut the remaining half roll into 12 tiny balls. Attach these for legs (4 to each of the 3 middle segments). Place 3/4 inches apart on a baking sheet that has been sprayed with non-stick cooking spray. Pinch the last ball to form a tail, pinching off a small ball for the antennae. Wrap dough around 2 toothpicks for antennae and insert on the head. Make an indentation for the eye. Place a whole clove in the indentation. Cut a slit for the mouth. Brush the segments with beaten egg. Sprinkle all but the head with poppy seeds. Raise until double and bake at 350°F for 20 minutes.

### SUGGESTED ACTIVITIES:

1. Compile a list of tips for using frozen dough. Include procedures you have found helpful and some dangers to avoid.
2. Answer the following questions:
  - A. How does the temperature of the dough affect the shaping?
  - B. What method would you use for raising dough? Why?
3. Sculpt 2 or 3 original shapes from dough, and give the directions for making each one.
4. Demonstrate to a group the procedure for one of your original creations.

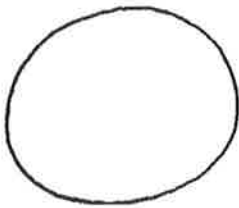
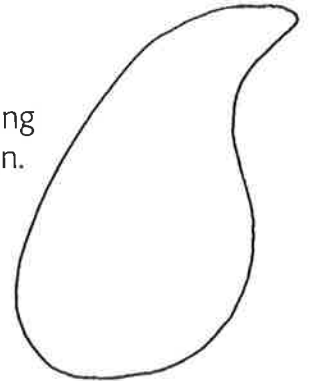




## MOUSE

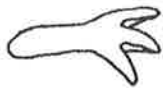
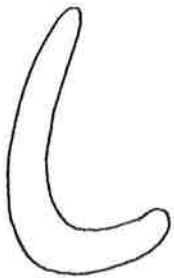
### **2 Texas Rolls or 2 Dinner Rolls for small mouse or 1 loaf of Wheat Bread for large mouse (thawed, but still cold)**

1. Form mouse on a baking sheet that has been sprayed with non-stick cooking spray. Use one roll or half of a loaf and form into a teardrop shape and flatten. Bend the top to one side.



2. Divide the remaining roll or half of the loaf into thirds. With 1/3, form a circle, flatten and position as a haunch.

3. With another 1/3, form two teardrop shapes into ears and depress centers. Place under top of head.

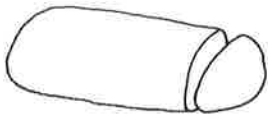


4. With remaining 1/3, shape tail, foot and hand or use red string licorice for tail (place licorice tail on after baking). Snip hand to form fingers. Place on body as shown. Use raisins for eye and nose. Brush with beaten egg. Let roll-sized mouse rise 15 minutes, then bake for 15-20 minutes at 350°F. Let loaf-sized mouse rise 30 minutes, then bake for 20-30 minutes at 350°F until brown.

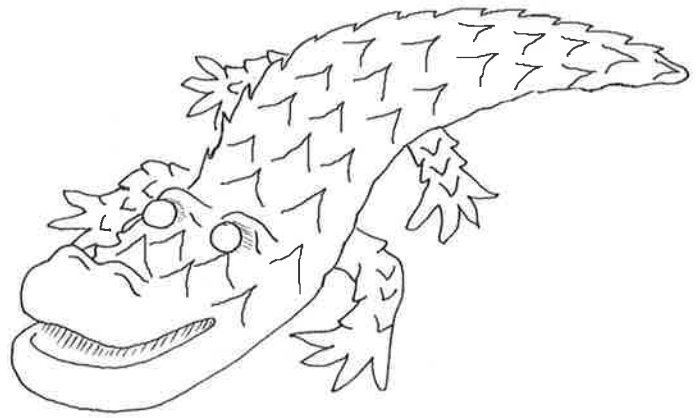
Remove from baking sheet onto cooling rack.



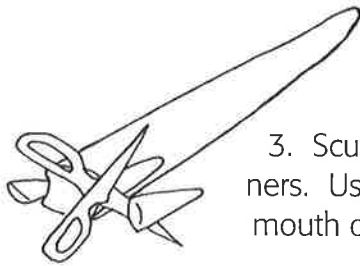
## ALLIGATOR



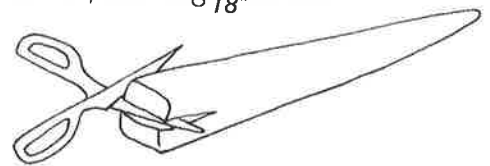
1. Cut a 1-1/2" section of thawed but still cold dough off the end of the loaf for the legs and eyes. (Honey Wheat or Cracked Wheat dough is preferable because it has more gluten, so it stretches more easily.)



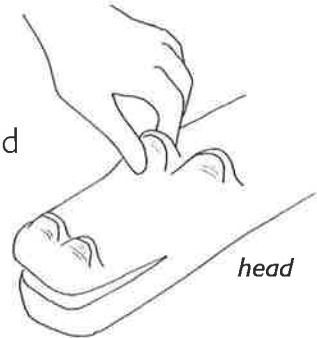
2. Stretch and roll the rest of the loaf to about 18", forming a narrow tail and leaving a broad head.



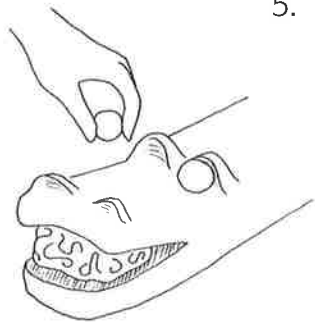
3. Sculpt the head further by trimming off the corners. Using scissors, cut open a 2-1/2" mouth. Prop mouth open with a wad of aluminum foil.



4. Pinch two nostrils; go back about 2" from the mouth and pinch two eye sockets.



5. Curving the body, place alligator on baking sheet that has been sprayed with non-stick cooking spray.

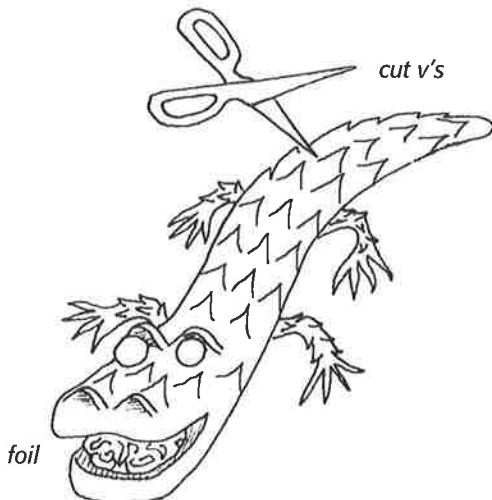


6. From the 2" reserve section of dough, pinch off two pea sized balls of dough for the eyes. Place in eye sockets.

7. Cut the remaining reserve dough into 4 equal pieces. Stretch and roll each piece to form 4 legs about 5" long. Cut four 1" long toes. Stretch and splay toes on cookie sheet.



8. Cut deep v's with scissors all over alligator to make scales on body. Brush with whole beaten egg and sprinkle with poppy seeds. Cover with plastic wrap that has been sprayed with non-stick cooking spray; let raise until nearly double. Bake at 350°F for 20 minutes. Remove from baking sheet and place on cooling rack. Remove foil from mouth before serving.



legs



## FROZEN BREAD DOUGH 4-H PROJECT

# LESSON 5 - CULTURAL DIVERSITY

### ADVANCE PREPARATION:

Select a variety of ethnic cook books.  
Survey local ethnic persons for possible guest speakers  
Prepare supplies for planned recipes or experiment.



### PURPOSES:

1. To gain appreciation for contributions of different cultures by making breads from different lands.
2. To foster social tolerance and discourage prejudice.
3. To become aware of different flavors from condiments, herbs and spices.
4. To gain insight into the cultural diversity of our community.

### INTRODUCTION:

Because our country is becoming more multicultural, it is important and exciting to learn to adapt to and enjoy the different flavors, ingredients, shapes and methods of food preparation from other cultures. It will enrich our lives to embrace customs and people who we regard as different. As we come to know them, we learn how much we have in common.

### SUGGESTED ACTIVITIES:

1. Choose a culture in which you have a special interest and find a bread recipe that will exhibit something special about that culture.
2. At an outdoor campfire, prepare a bread treat with your group.
3. Visit an ethnic restaurant and report on the differences in foods and atmosphere.
4. Interview a person of a different culture about his or her favorite foods.

### ETHNIC RECIPES

EUROPEAN \_\_\_\_ HOUSKA (CZECH.)

**18 dinner rolls thawed**

**1/4 teaspoon nutmeg**

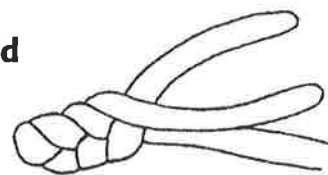
**1 egg white**

**caraway seeds**

**1 teaspoon lemon peel, grated**

**2/3 cup raisins**

**1 Tablespoon water**



Knead all ingredients together, except caraway seeds. Divide into 3 equal portions. Make ropes about 20 inches long from each of the 3 portions. Place on baking sheet that has been sprayed with non-stick cooking spray and pinch the tops together. Braid the ropes, tuck under the ends and pinch. Brush with egg white beaten with water and sprinkle with caraway seeds. Cover with plastic wrap that has been sprayed with non-stick cooking spray and let rise until double. Carefully remove plastic wrap. Bake at 350°F for 30 minutes. Remove to cooling rack. Serve warm or reheated.

**24 dinner rolls, thawed**  
**1/2 cup fresh herbs, minced or**  
**1 teaspoon dried herbs, rosemary, basil,**  
**cilantro, parsley or herbs of your choice**  
**2 tablespoons minced chives**  
**1/2 cup each sharp cheddar and**  
**mozzarella cheese**  
**1/4 teaspoon ground cumin**  
**1/8 teaspoon cayenne pepper**  
**1 Tablespoon lemon peel, grated**  
**1 Tablespoon egg, well-beaten**



**whole basil leaves and chives or other herbs to garnish loaf**

Knead rolls together. Knead in the minced herbs, chives, spices, cheese and peel until evenly mixed. Shape into a smooth ball or into two loaves. Place on a large baking sheet that has been sprayed with non-stick cooking spray. Cover with plastic wrap that has been sprayed with non-stick cooking spray and allow to rise until double. Remove plastic wrap. Bake in a 350°F oven until deep golden brown. Remove from the oven and brush the loaf with beaten egg. Dip the garnish in beaten egg and arrange the herbs attractively on the loaf. Place in oven and bake just until the glaze is set, 1-2 minutes. Remove to a cooling rack.

**NATIVE AMERICAN HOPI FRY BREAD**

**12 frozen white dinner rolls**

Thaw the frozen dough overnight in the refrigerator. With a floured rolling pin, shape each ball on a lightly floured board into a 4 inch disk 1/2 inch thick. Heat 1-1/2 inches of shortening in a heavy fry pan until it is about to smoke. Fry 3 or 4 pieces of bread at a time in the hot shortening until they are puffy and brown on both sides. Drain on paper towels. Serves 6-8.

THIS RECIPE NEEDS ADULT SUPERVISION FOR MAXIMUM SAFETY.

What special precautions learned in lesson 4 are important here?

**NATIVE AMERICAN TWIST BREAD (*To be made at an outdoor campfire*)**

Thaw 12 dinner rolls. Prepare short pieces of green saplings about 1 inch in diameter and 30 inches long by removing the green bark. Flour your hands and shape the dough into strips 12 inches long and 3/4 inch thick. Wrap dough strips around saplings, leaving spaces between the spirals so heat can reach through the dough and give the dough enough space to rise.

Place the sticks close to the coals of the campfire and allow to bake, turning to bake evenly. (To find the distance at which the twists will bake, hold your hand in front of the fire 3 or 4 seconds without burning yourself. Then hold the twist at that distance as long as it takes the bread to bake.) Serves 6-8.

THIS RECIPE NEEDS ADULT SUPERVISION FOR MAXIMUM SAFETY (It is advisable to have a First-Aid kit on hand)

What safety lessons should be reviewed before campfire cooking?



## FROZEN BREAD DOUGH 4-H PROJECT

# LESSON 6 - THE WHEAT KERNEL

### ADVANCE PREPARATION:

Write or call the Wheat Commission in your state for information.

Contact a wheat farmer for a visit.

Prepare supplies to use in the activities selected.

### PURPOSES:

1. To learn about wheat production, uses and varieties.
2. To gain an appreciation for the value of wheat nutritionally.
3. To learn the economic value of wheat.
4. To learn uses for the parts of the wheat kernel.

### INTRODUCTION:

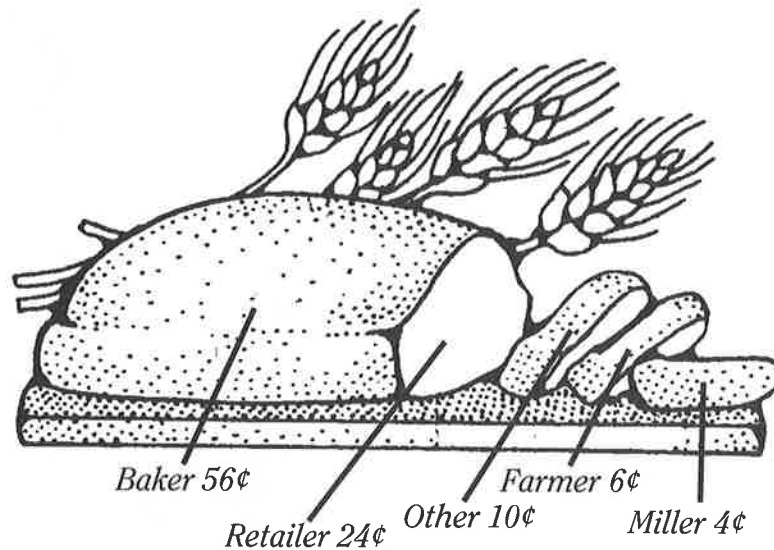
A kernel of wheat is a storehouse of nutrients needed and used by people. Wheat flour is made from the complicated kernel. Bread flour, ground from the endosperm of the wheat kernel, is milled primarily for bakers. Although similar to all-purpose flour, it has a greater gluten strength and is generally used for yeast breads and is the flour used for frozen white bread dough. Whole wheat flour is a coarse-textured flour, ground from the entire wheat kernel. It contains bran, germ, and endosperm. This flour has a smaller proportion of gluten, so products tend to be heavier and more dense than those made from white flour. Whole wheat flour is rich in B-complex vitamins, vitamin E, fat, protein, and some minerals. There are no additives or preservatives in frozen dough. However, white loaves and rolls are enriched with iron and B vitamins in amounts equal to or exceeding that of whole wheat flour. (Always check the label for this information.)

Flour provides complex carbohydrates which give your body the energy to grow, work, play, and help your brain function. Grain is considered the most efficient source of energy available to the human body. The hard covering on the kernel is the bran. It provides fiber. Fiber is important in wheat bread. It helps keep your digestive system moving on schedule and research supports evidence that fiber aids in the prevention of diabetes, colon cancer, heart disease, obesity and hypertension. The tiny part is the germ. It is the part that would grow into a new plant if the kernel were planted. There are 15,000 kernels in a pound of wheat. You may want to plant some wheat kernels. They need a lot of water until the stalks start to turn brown. When they first sprout you may cut them to use in salads. The mature stalks make beautiful decorative arrangements.

Wheat is low in fat. One slice of bread or a dinner size roll has only 60-70 calories. Athletes eat lots of wheat products because wheat gives them energy without many calories. The Food Guide Pyramid recommends 6-11 servings from the bread group.

Wheat producers raise more than twice the amount of wheat used in this country. Therefore, wheat is exported. Last year, Americans consumed 130 pounds of flour per person. A bushel of wheat weighs 60 pounds and yields 42 pounds of flour which makes 66 one pound loaves of bread. Can you find out how much money a farmer gets for a bushel of wheat?

Usually the cost of bread is divided -- 6% for the farmer, 4% for the miller, 24% for the retailer, 56% for the baker and 10% for all other expenses. Does this surprise you?



#### SUGGESTED ACTIVITIES:

1. Draw a chart or picture that shows the parts of the wheat kernel in an original form.
2. Look for ideas using wheat stalks as a decoration. Report with a drawing, picture or sample.
3. Explain the meaning of "ENRICHED" and its importance, to your group.
4. Sprout wheat kernels and use in a recipe.

**Sprouting Wheat** --- Wheat takes only 2 days to sprout and can be harvested when only 1/4 inch high. We use the sprouts before the leaves open and turn green. They taste sweet, nutty, and are chewy and filling. One cup of seed yields 4 cups of sprouts. They are easy to sprout in a wide mouth quart jar. Fit the top with a screened lid. (You can make one with fiberglass window screen fitted into a jar lid.) Soak the seeds in water overnight. Drain off the water through the lid and rinse the seeds with water several times a day.

#### RECIPE

##### SPROUTED WHEAT PICNIC BUNS

Use 1 cup of wheat sprouts for 16 ounces of frozen bread dough which has been thawed in the refrigerator overnight. Work the sprouts evenly into the dough and form into 8 picnic buns. Cover and allow to rise until double. Bake at 350°F for about 20 minutes. Cool on a rack, then seal in a plastic bag for 30 minutes to soften the sprouts in the outer crust.

# THE KERNEL OF WHEAT

## ENDOSPERM

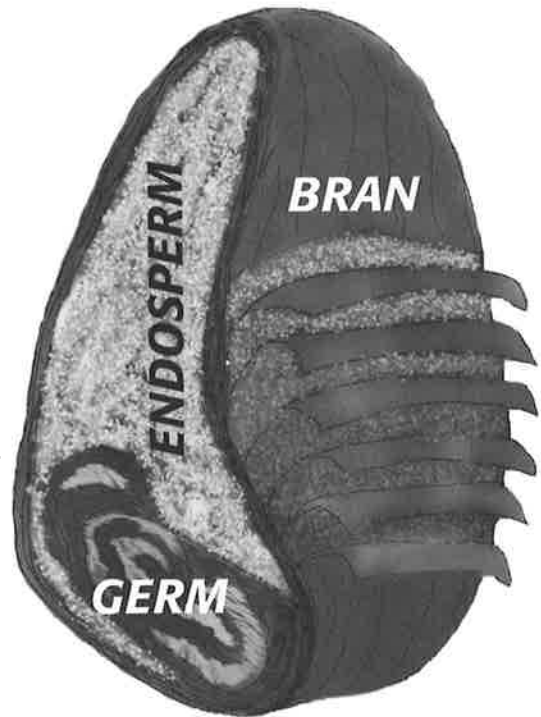
...about 83% of the kernel and the source of white flour. Enriched flour products contain added quantities of riboflavin, niacin, thiamine and iron.

## BRAN

...about 14% of the kernel. Bran is included in whole wheat flour and is also available separately.

## GERM

...about 2-1/2% of the kernel. Germ is the embryo or sprouting section of the seed, usually separated because it contains fat which limits the keeping quality of flours. Wheat germ can be purchased separately and is included in whole wheat flour.



## A STOREHOUSE OF NUTRIENTS

People don't eat nutrients. They eat foods containing nutrients. Digestion processes foods into nutrients or nutrient combinations. Some of the nutrients you need come from animals, some from plants. Some you need every day, others your body can store for later use. Your blood carries this supply of nutrients plus oxygen, from the air you breathe, to every cell in your body.

## CALORIES

Calories are your first basic need. While not nutrients in themselves, they represent the energy rating of any food, your first basic need. Energy is necessary so that your body can make full use of nutrients - the protein, carbohydrates, vitamins, minerals, fats, and water in your diet. You need constant energy to grow, work, play, to keep you either warm or cool, even to rest.

Proteins and carbohydrates have the same energy value, weight for weight (about four calories per gram). Fat has more than twice the energy value of other nutrients (about nine calories per gram). What is the significance of this difference?



## FROZEN BREAD 4H PROJECT

# LESSON 6 REVIEW OF THE FROZEN BREAD PROJECT

It is time to finish your project and make plans for your exhibit. Practice making the product you will exhibit. Plan a time to practice your demonstration. Use the knowledge you have gained to help your family and, when possible, your community.

### A. A short quiz

1. Draw a pyramid and divide it into the proper food groups.
2. Name 3 important points when shopping for frozen foods.
3. How can using the information on a food label save you money?
4. Name 4 safety habits you now practice.
5. Choose 3 cultures you would like to know more about. Why?

### B. Count how many times you have used local grown products in this project. Each product is marked with a (STAR) ★.

### C. Plan a party and/or a demonstration.

1. Organize a party for 4H members and/or parents.
2. Write down your plans and keep the party simple.
  - Choose food you have made during this project.
  - Include a game, contest, or charades.
  - Do a bread demonstration.

### D. Plan your exhibit (include your record book).

1. Try to make it different so it will get maximum attention.
2. Make your exhibit neat and attractive.

### E. Write a personal story following the outline included.

### SUGGESTIONS FOR CHARADES:

Drawing a Pyramid---Reading a Frozen Bread Label---Forming a Bread Sculpture---Harvesting Grain in a Field---Rolling Dough---Planting Wheat Seeds

### DEMONSTRATION HELPS - (HAVE SAMPLES READY TO SHOW AND SHARE)

Always dress neatly. Avoid jewelry and falling hair. Wear an apron.  
Cover labels on packages.  
Keep your space free from clutter.  
Don't try to talk over noisy equipment.  
Use trays to hold ingredients and equipment.  
Have large visual aids, use flannel board, flip charts, posters.  
Include nutrition information. Tell why this is a worthy product.  
Make your recipe in advance. Are products from your state included?





## EXHIBIT SUGGESTIONS:

Exhibit a product you like.

Make the product in advance (if necessary freeze).

Know how to judge your product.

Appearance--Loaves should be even in shape with a smooth rounded top -

Rolls should be even in size, rounded with good volume. The bread should be even in color, (whole wheat will be darker).

Texture--The inside should have even holes and walls, no heavy or dark streaks.

Aroma--Does it smell delicious?

Flavor--Yeast breads should have a sweet, nutty flavor.

## LOOKING BACK--4-H STORY



1. Successes I had
2. Disappointments I had
3. New things I learned
4. How this project helped me
5. Tell about the help you had
6. What part did you take in club activities?
7. What are your future 4-H plans?
8. Would you recommend this project to others? If so why?



This project developed by Ethel Farnsworth, Home Economist, Rhodes Bake-N-Serv®. Generous donations from Rhodes Bake-N-Serv® have made this project possible. Ann Henderson, Utah Extension kindly critiqued a part of this project. Arizona Yuma County Cooperative Extension services promoted the pilot project.

## BAKING TIPS

1. Allow plenty of time for thawing. Warmth and moisture hasten thawing and rising. You may prefer to thaw dough overnight in refrigerator to save time the next day.
2. Always spray pan with non-stick cooking spray and cover frozen dough with plastic wrap that has also been sprayed non-stick cooking spray while thawing and rising. Remove plastic wrap before baking.
3. Allow frozen dough to rise in a draft free, warm location until double in size.
4. Do not re-freeze thawed dough.
5. The proper pan size for a 1 lb loaf is 8 1/2" x 4 1/2" by 2 1/2". Pan should be sprayed with a non-stick cooking spray.

## SHOPPING TIPS

When shopping, check frozen dough packages for these things.

- A. Dough should be frozen solid.
- B. Rolls or loaves should be separate, not sticking together.
- C. Use the frozen dough well before the expiration date (printed on the plastic Kwik Lok) on the top of each bag.

## WHAT I'VE DONE AT A GLANCE

Mark it down each time you do the job.  
List how much you made if you wish.

### Project Activities

### Number of Times (T H)

Made loaves of white bread from frozen dough .....	
Made loaves of whole wheat bread from frozen dough .....	
Made white dinner rolls .....	
Made flaked wheat dinner rolls .....	
Made white Texas™ rolls .....	
Made wheat Texas™ rolls .....	
Gave a report of an experiment .....	
Gave a demonstration or illustrated talk on a bread project .....	
Judged frozen dough breads .....	
Studied labeling of bakery products .....	
Did comparison shopping of different kinds of bread .....	
Made Crumb Griddle Cakes .....	
Made Pan de MI Cocina .....	
Other : .....	
.....	
.....	

## HOW DID I RATE MY BAKED PRODUCTS

### Product

### Rating

	EXCELLENT	GOOD	FAIR	POOR
Bread From Frozen Dough .....				
Rolls From Frozen Dough .....				
Sculpture From Frozen Dough .....				
Other : .....				
.....				
.....				

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