



## WORKBOOK

UNIVERSITY OF  
FLORIDA  
IFAS EXTENSION



Florida 4-H Food, Nutrition & Health Program



# Welcome to 4-H FOOD FUNDamentals !

Food is fun...whether you are cooking or eating it. It does good things for your body...keeping it in shape. But what do you know about nutrition and the foods you eat?

4-H FOOD FUNDamentals will introduce you to the fundamentals of health, nutrition and fitness. There are nine fundamental topics to help you score with PYRAMID POWER!



## Pyramid Power!

*How's Your Serve?  
Pyramid Pizza*



## The Nutrient Team!

*A Nutrition March  
Find the Nutrients*



## Fast Break for Breakfast

*Breakfast Favorites  
Bread-in-a-Bag*



## Pyramid Plays!

*Pyramid Promises  
Test This Strategy  
Food Favorites*



## Special Effects...

*Find the Fiber  
The Sodium Scoreboard  
Food Test For Fats  
Fabulous Fruits*



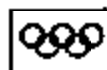
## Staying On Track

*Keep A Diary  
Fast Food Scoreboard  
Choices On The Run...*



## Being A SUPER SHOPPER!

*Plan A Meal  
Figure It Out  
Label Match  
Shopping Around  
Smart Shopper*



## Olympics With..

*Cross-Country Games  
Japanese Rice Balls*

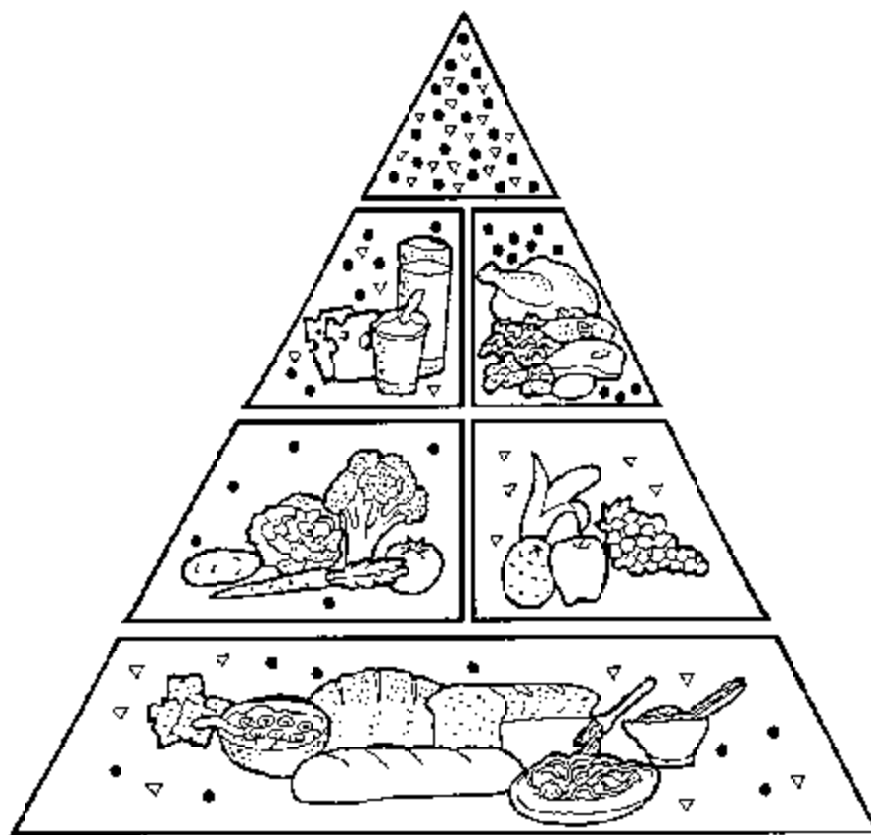


## Skills Of The Game

*Chef Safety  
Be Safe-Not Sorry  
Equipment ID  
Measuring MathMagic!  
Food Safety Zones*

# PYRAMID

A healthy diet depends on eating the right foods in the right amount. That takes having a good game plan to follow. A pattern for daily food choices we call the **FOOD GUIDE PYRAMID** provides us with a plan to follow in making wise food decisions. It outlines what we should eat each day. It's a guide that lets you choose a healthy diet that is right for you!



**What's Pyramid Power?** Pyramid power is how well you follow and practice a game plan of your daily food choices! It's all about **WHAT** you choose and **HOW MUCH** you choose to eat from each food group daily.

**How Does It Work?** Take a closer look at the pyramid. You'll find five groups shown ...each of these foods provide some, but not all, the nutrients you need. Foods in one group can't replace those in another. No one food group is more important than another - for good health you need to eat them all.

**What makes up the foundation of the pyramid?** That's right...breads, cereals, pasta and other foods from grains. You need the most servings (6-11) of these everyday!

# POWER !

The clue to the next level are foods that come from plants...vegetables and fruits. Here's where following the game plan is important. Most of us need to eat more of these for our daily supply of vitamins, minerals, and fiber. How do you score on these plays? Do you eat 3-5 servings of vegetables a day? What about 2-4 servings of fruits each day?

The third level are two groups that provide important body building nutrients...meat and meat alternates, milk, yogurt, and cheese. They provide us with power building nutrients of protein, calcium, iron, and zinc. These power foods come mostly from animals and we need 2-3 servings each day.

The small tip of the pyramid represents the foods that we need to pay careful attention to in our choices! Fats (●) and sugars (▼) should be chosen in small amounts since they have special effects... lots of calories and fewer body building nutrients.

## Pyramid Mix-up!

The nutrients on the left are all mixed up! Match them with their correct food source in the pyramid on the right.

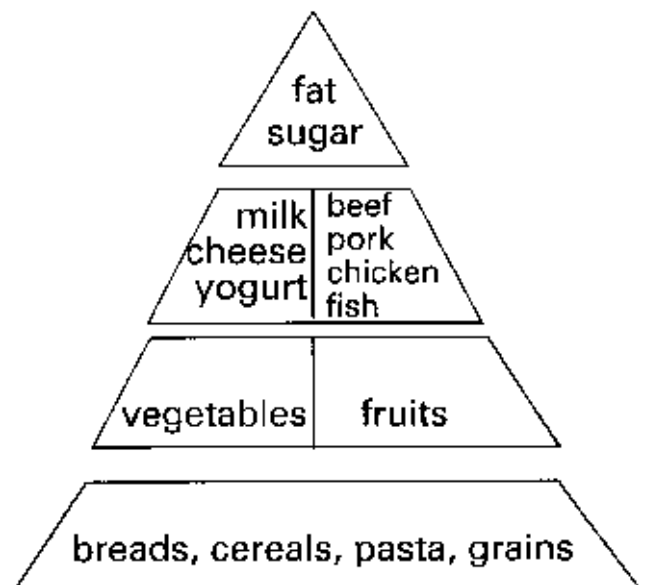
### Nutrient Contents:

carbohydrates for energy

vitamins and minerals from plants  
for physical development

calories

proteins and vitamins from  
animals for physical development

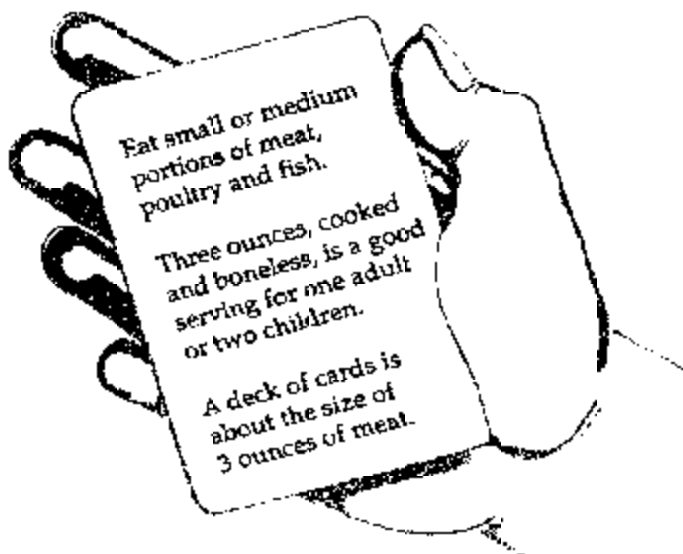


# How's Your Serve?

An important part of keeping score with the Food Guide Pyramid is eating the right number of servings of food recommended.

Check out your "serve" with this activity!

At your next meal, measure your serving sizes. Put the number of servings in the box.

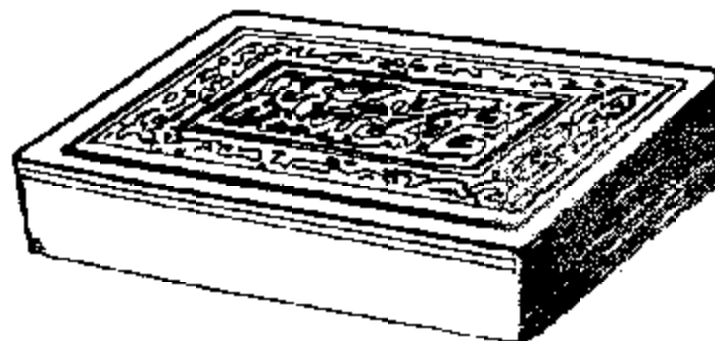


**BREADS/CEREALS:**  
1/2 c. pasta or rice OR 1 oz.  
dry cereal OR 1 slice of bread

**VEGETABLES:**  
1/2 c. cooked, 1 c. raw OR  
3/4 c. juice

**MEATS:**  
2-3 oz. meat OR 1/2 c.  
cooked dry beans  
OR 1 egg

**FRUITS:**  
1 medium fruit OR 1/2 c. cooked  
OR 3/4 c. fruit juice

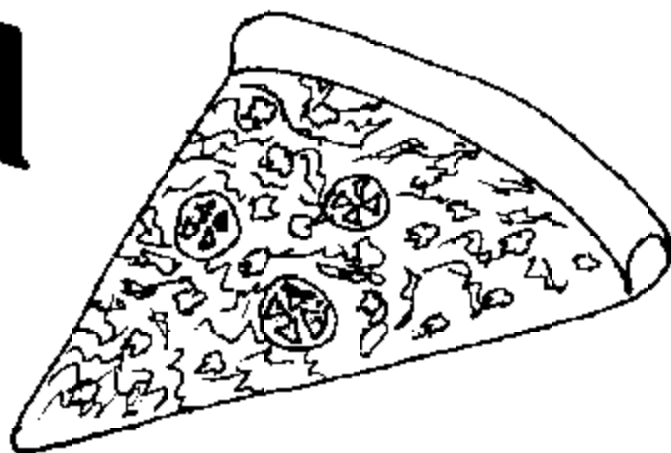


**HOW DID YOU SCORE?**

\_\_\_\_\_  
\_\_\_\_\_

*When you enjoy smaller portions of meat, fill the rest of your plate with vegetables, beans, rice noodles or bread.*

# Pyramid Pizza



**Try This!**

## TACO PIZZA

2 cups of biscuit mix (or 2 cups flour & 2 tsp. baking powder)  
2/3 cup water  
2 tablespoons flour  
1/2 pound ground meat  
1 package taco seasoning (optional)  
One 16 oz. can refried beans  
1/2 cup water  
1 cup cheese, grated  
1/2 cup onion, chopped  
2 cups lettuce, chopped (optional)  
1 cup fresh tomatoes, diced or 1 can tomato pieces (drained)

Preheat oven to 400° degrees. Mix together biscuit mix (or flour and baking powder) and 2/3 cup water with a fork. Sprinkle two tbsp. flour on a flat surface. Knead dough 5 or 6 times on floured surface. Roll dough to fit a pizza pan or cookie sheet. Put dough in the pan. Push it with your hand to build up the sides of the crust so it will hold the sauce. Bake at 400° F. for 10-12 minutes or until light brown. While crust is baking, brown ground meat in skillet; drain off fat. Add 1/2 cup water, taco seasoning, and beans to ground meat. Mix well and simmer until heated through. After crust has cooked 10-12 minutes, remove from the oven and spread crust with meat and bean mixture. Sprinkle cheese and onion on top of meat and bean mixture. Bake in oven for 5 minutes at 400° F. Remove from oven; sprinkle lettuce and tomatoes on the pizza and serve.

# The Body Building Nutrient Team

## Did You Know?

There are more than 50 different nutrients, and your body needs each of them. They work as a team to keep your body healthy. Your body carries the nutrients, from the foods you eat, to your cells. That is where they do all their work!

We get most of our calcium from milk. One cup of milk has as much calcium as 28 hamburger patties or 6 cups of coleslaw!

**Rocks, Bones, and Minerals!**



## try this!

Just as minerals make rocks hard, calcium and other minerals make our bones hard, too!

### What You Need:

1 clear jar with lid

White vinegar

Chicken bone

### What You Do:

1. Place bone in jar and cover with vinegar.
2. Observe for 2-3 weeks.
3. Remove bone & test its strength!

### What Happens?

Did the bone bend? \_\_\_\_\_

Why? \_\_\_\_\_

(the minerals were dissolved)

# A Nutrition Match - UP

Match the correct answers in column 2 to complete the statements in column 1.  
Write the correct letter in front of each number.

- |                                                   |                                           |
|---------------------------------------------------|-------------------------------------------|
| — 1. Nutrition is                                 | A. two or more servings each day.         |
| — 2. Digestion changes food into                  | B. liver.                                 |
| 3. Calories are                                   | C. milk and cheese.                       |
| 4. Enriched cereals have added                    | D. our food and what it does for us.      |
| — 5. Two foods rich in calcium are                | E. measures of heat and energy.           |
| — 6. A food rich in iron is                       | F. nutrients our bodies can use.          |
| — 7. Some foods rich in Vitamin A are             | G. vitamins and minerals lost in milling. |
| 8. Foods rich in Vitamin C                        | H. oranges, cabbage and tomatoes.         |
| 9. Foods rich in protein                          | I. from the milk group.                   |
| — 10. We need 2-3 servings daily                  | J. butter, squash, carrots, spinach.      |
| — 11. From the meat group we need                 | K. the fruits and vegetable groups.       |
| — 12. We need 6-11 servings each day from         | L. meat, eggs, milk, dry beans, peas.     |
| — 13. Protein is needed to                        | M. niacin, thiamine and riboflavin.       |
| — 14. Calcium is needed for                       | N. red blood cells and to carry oxygen.   |
| — 15. Iron is needed for                          | O. strong bones and teeth.                |
| — 16. Names of three B vitamins are               | P. build and repair body tissues.         |
| — 17. We need 5 or more servings<br>daily from... | Q. the bread and cereals group.           |



# Find the Nutrients

Draw triangles  $\triangle$  around two foods where vitamin C is hiding.

Draw circles  $\circ$  around two vitamin A foods.

Draw squares  $\square$  around four foods hiding the most iron.

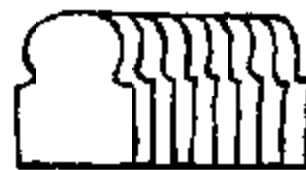
Draw stars  $\star$  on the two foods hiding the most calcium.



Milk



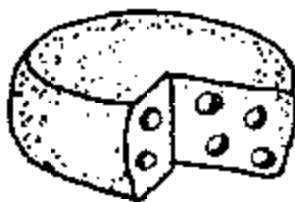
Liver



Bread



Tomato



Cheese



Carrot



Peanut Butter



Oatmeal



Orange

# Fast Break for Breakfast !

In basketball, a fast break is a play that moves the ball quickly from one end of the court to the other. It helps a team get a fast start on a scoring play.

You should make a fast break for breakfast everyday! Breakfast can help your body get started for a "high-scoring" day.

Here is a basic breakfast GAME PLAN:

### *Invent Your Own Plays...*

Who says you can only eat "breakfast food" in the morning? Japanese kids sometimes eat soup for breakfast. You can, too.

**Remember, TEAMWORK is important! Consider the 5 food groups as your team members.**

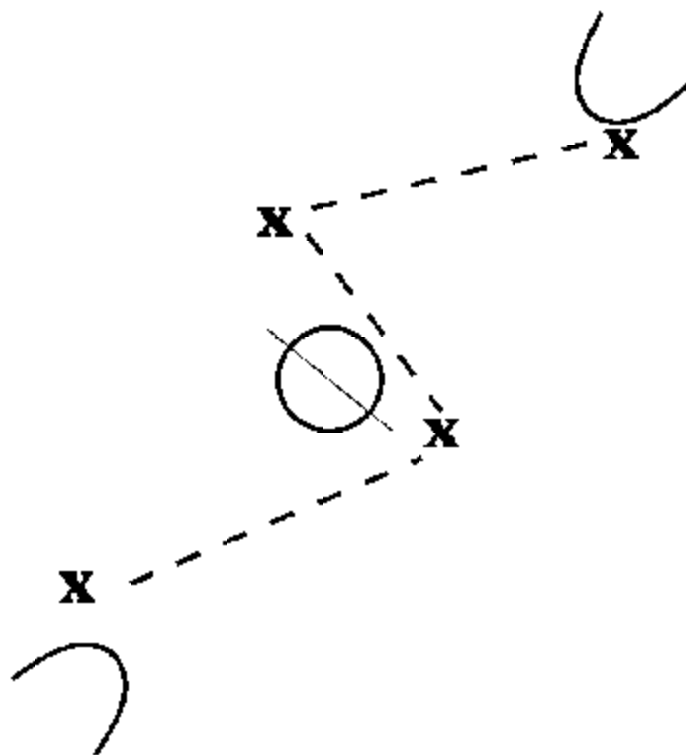
Choose a combination of foods. Try to include at least 3 of the 5 essential food groups in your breakfast gameplan.





### *Get your game set up quickly!*

If you are short of time, fix some foods in advance. That way you can get a fast start in less than 5 minutes!

**Help a younger member of your team!**

**If you have younger brothers or sisters, help them get a good start with breakfast!**



		
Fruit	+	Bread
		
Milk or Cheese	=	

*A Great Breakfast Play!*

# BREAKFAST FAVORITES

## What are your favorites?

Directions:

- X Favorite Foods
- ✓ Foods never tried before
- Circle breakfasts you can make yourself



Yogurt



Cinnamon Toast



Milk



Cheese Sandwich or  
Cheese & Crackers



Hard-Cooked Egg



Egg Salad



Muffins



Cocoa with milk



Pancakes



O.J. mixed  
with Milk



Pizza



Fruit or Fruit Salad



Oatmeal  
w/ Raisins



Grits



Tomato Juice



Cereal with  
Fruit & Milk

# Bread-in-a-Bag



TRY THIS!

4 cups plain flour	1/4 c. honey
3 3/4 c. whole wheat flour	1/4 c. dry nonfat milk
2 packages dry yeast	2 tblsp oil
2 1/2 c. warm water (105-115 degrees)	1 tsp salt

**COMBINE:** Whole wheat flour, nonfat dry milk, and salt in a plastic bag (2-gallon heavy freezer bag).

**ADD TO BAG:** oil, honey, dry yeast and warm water.

Squeeze the upper part of bag to force out the air. Rest the bag on table; close top of bag tightly between thumb and index finger. Mix by working bag with fingertips until all ingredients are completely mixed.

Gradually add white flour, 1 c. at a time, until stiff dough is formed (about 3 cups total). Dough will pull away from the sides of the bag.

Turn dough out onto floured surface and knead for 5-7 minutes or until dough is smooth and elastic. Add more flour if necessary. Shape into a ball.

Cover ball of dough with plastic bag and let rest for 10 minutes. Grease bread pans. Shape dough into 2 loaves. Brush loaves with oil and cover or place in plastic bag. Allow loaves to rise in a warm place for 45-60 minutes OR place loaves in a refrigerator overnight. Uncover.

Bake at 375 degrees about 30 minutes or until it turns a deep golden brown. Remove from pan immediately. Cool on rack.

Makes two 1 3/4 pound loaves.



# PYRAMID

Trying new plays is part of being a good team player. We can expand our own "play book" of likes and dislikes by adding new or different foods to our diet.

No matter what food is your favorite - - - it can't possibly keep you healthy all by itself !

One food will not provide all the nutrients you need. Remember, it takes a **TEAM** of nutrients for good health!

## Pyramid

r  
o  
m  
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e  
s

"Pin Down" 3 new foods to try this year!

List them below.

Foods I Plan  
to try:

Date tried

Reactions

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

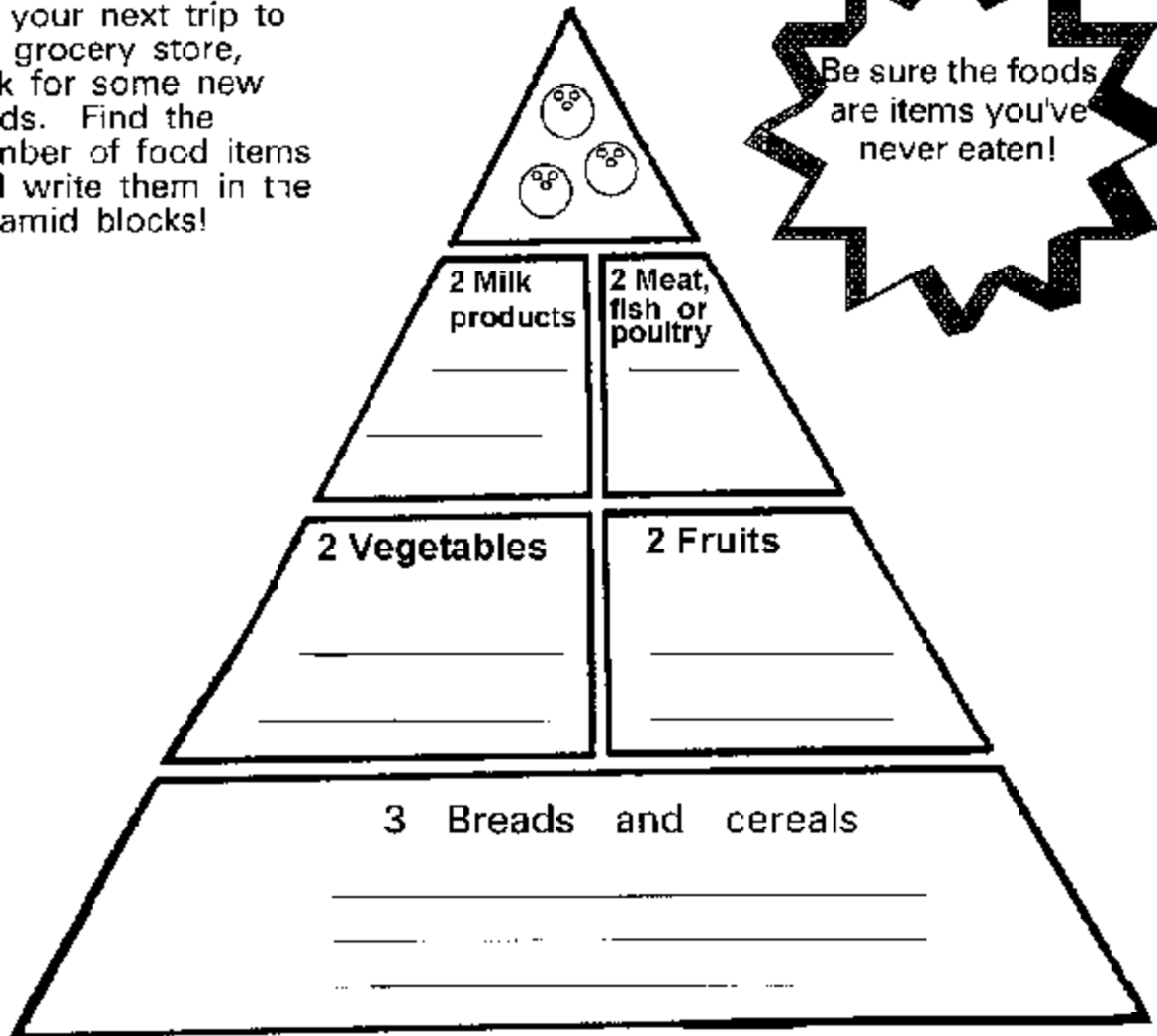


# PLAYS!

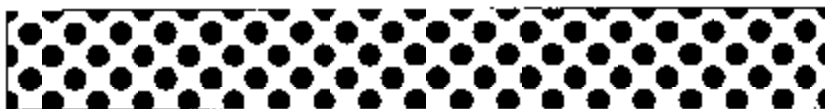


"Rack up" some foods to try during your next trip to the grocery store.

On your next trip to the grocery store, look for some new foods. Find the number of food items and write them in the pyramid blocks!



# Test This



## Check What You Will Need:

- Measuring cup
- 3 quart-size jars with lids
- 2 cups of nonfat dry milk
- 2 cups whole milk
- Water
- Tape and pencil
- Small cups for everyone in group

## What You Do:

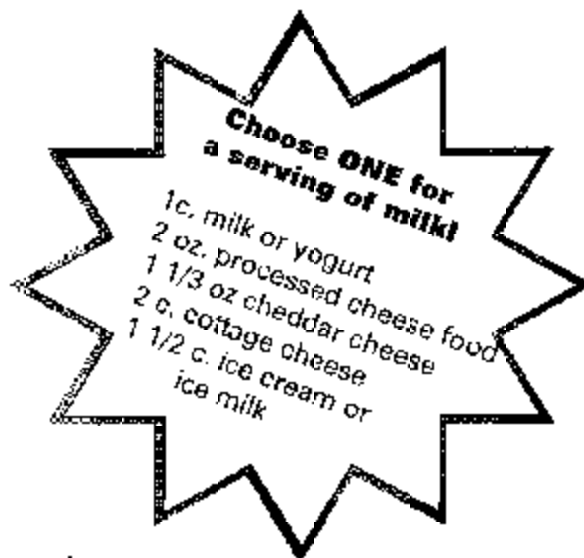
### *The day before the taste test:*

- Combine  $\frac{2}{3}$  c. nonfat dry milk with 2 c. cold water in two of the jars.
- Add 2 c. whole milk to one of the jars.
- Label the jars so that only you know what is in each one. (Taste tests are secret!)
- Put the lids on the jars and chill in the refrigerator for 12 - 24 hours.

### *Just before the taste test:*

- Combine  $\frac{2}{3}$  c. nonfat dry milk with 2 c. cold water in the third jar.
- Label this jar with your secret code too!

# Strategy!



*For the taste test:*

- Have small cups for everyone in your group to use to taste all three kinds.
- Decide which they like best.

## **How did you do?**

What did you find? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What were the results of your taste test? \_\_\_\_\_  
\_\_\_\_\_

Does thoroughly chilling the nonfat dry milk make a difference?  
\_\_\_\_\_  
\_\_\_\_\_

**Try This!**

**Make Skim Milk**

4 c. of cold water + 1 1/2 c. instant dry milk = 1 quart skim milk



# Food Favorites

## What you do:

Are there some foods you eat more often than others? Take a look at some of your food habits. Complete this list and have a friend do a list, too. Compare your lists.

Check column 1 for the foods you easily could do **without** for six months.

Check column 2 for the foods that belong to the **Basic 5 Food Groups**.

Check column 3 for the foods you eat too much too often.

Check column 4 for the foods that would not have been on your list one year ago.

## How did you do:

What does your list tell you about the foods you eat?

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Are all food groups represented?

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What can you do to improve the nutritional quality of your diet?

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## MY TEN FAVORITE FOODS 1. 2. 3. 4.

<i>watermelon</i>		✓		✓

# Foods With Special Effects

Errors in baseball can have a big effect on the outcome of the game. Some foods we eat have big effects on our diet and health. Fat, sugar and salt are a few ingredients found in our foods that we need to pay special attention. Choosing foods wisely now can prevent weight problems or health risks in the future!

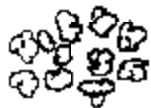
## Take a look at what you eat.

<i>How often do you:</i>	Almost daily	3-5 times a week	1-2 times a week	Less than once/week
1. Drink sodas or other sweetened beverages?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Eat sweet desserts and snacks, like cake, candy, ice cream and cookies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Eat salty snacks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Salt your food before tasting it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Eat fried foods?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# FIND the FIBER

Fiber helps food to move through the body. Fiber is usually found in vegetables, unpeeled fruits, beans, rice, whole grain breads, and cereals.

Make a ✓ by the food in each pair that has more fiber.



POPCORN

OR



PLAIN JELLO



VEGETABLES

OR



MEATS



MEAT

OR



CEREAL



WHOLE WHEAT BREAD

OR



WHITE BREAD



FRUITS

OR



MILK & CHEESE



POTATO WITH SKIN

OR



POTATO WITHOUT SKIN

# Food Test For Fats

Many of the foods we eat contain ingredients like fat, salt and sugar. Many times these ingredients can easily be identified in the foods you eat. Sometimes they can not. Fat is one of the hidden ingredients in many foods we eat. Eating too much fat may lead to weight problems, heart disease and cancer.

Do your favorite foods contain hidden fat? Find out!

## What you need:

- Samples of five of your favorite foods.
- Brown wrapping paper or white onion skin paper.

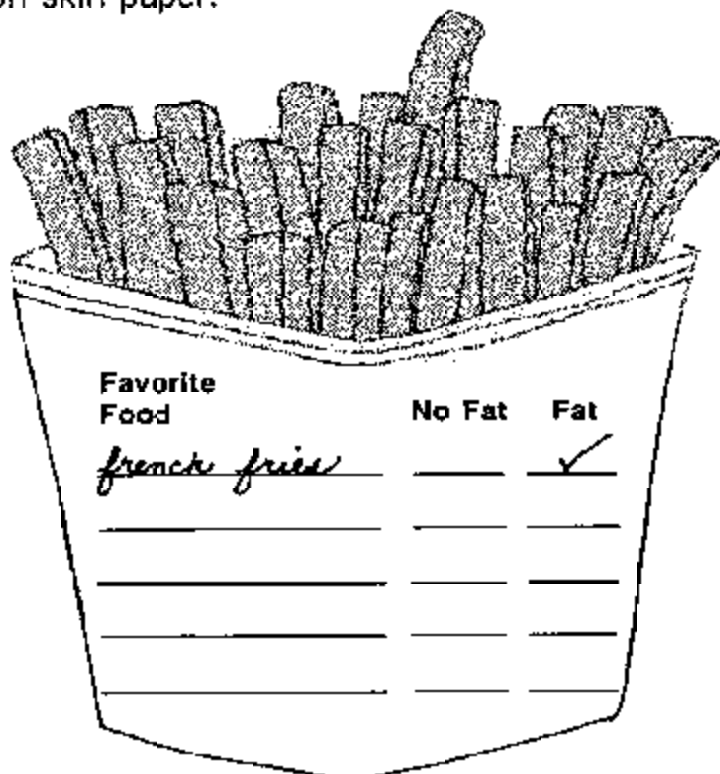
## What you do:

Rub a sample of your favorite food on a piece of brown wrapping paper or white onion skin paper. Let the paper dry and then hold it up to the light.

Does a greasy spot appear? If so, fat is in that food.

## How did you do?

How many of your favorite foods contained fat? List your foods here and check if your food contains fat.



Favorite Food	No Fat	Fat
<i>french fries</i>	_____	<input checked="" type="checkbox"/>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

# The Sodium Scoreboard!



Sodium is a mineral necessary for good health, but most Americans get more than they need. Since salt is 40% sodium, eating less salt and salty foods is a good way to reduce sodium.

Can you spot sodium in the foods you eat?

It is often hidden because it has many roles in processed foods and many different names on a food label. Look for some of these different forms of sodium on food labels at home or at the grocery store.

- baking powder*
- baking soda*
- monosodium glutamate*
- seasoned salt*
- sodium benzoate*
- sodium saccharin*
- sodium ascorbate*
- sodium citrate*
- sodium nitrate*
- sodium propionate*

Record on your scoreboard the name of the food and the sodium per serving, if listed on the label.

**BONUS:** Add two forms of sodium you found not on the list:

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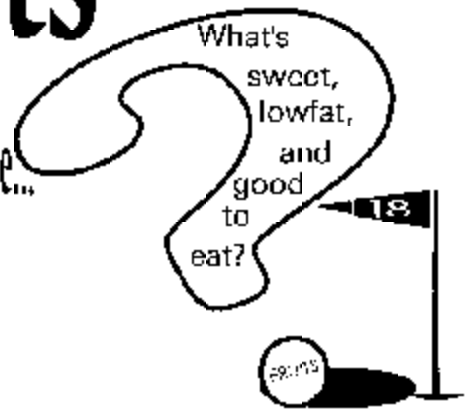


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SODIUM SCOREBOARD		
FOOD ITEM	SODIUM per serving	SERVING size

# Fabulous Fruits

A fat-free, high fiber, naturally sweet food choice...



*A Hole in one!*

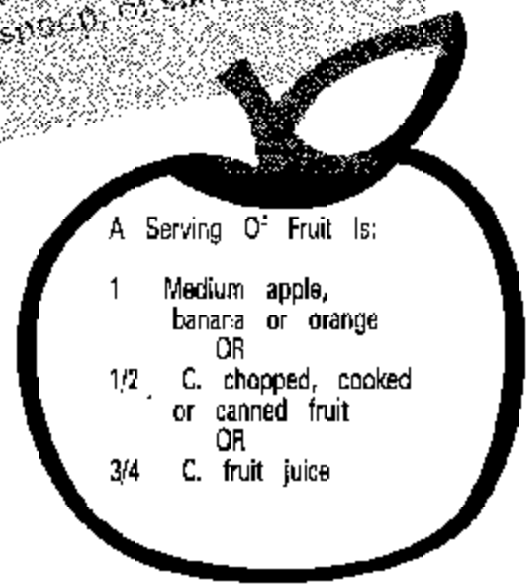
Fresh fruits are naturally sweet and do not contain fat. The amount of sugar in fruits is much lower than the sugar in other snack foods like pies and cakes but it is enough to give fruits a "sweet" taste.

Fresh fruits add fiber to our diets, too! Start a habit of choosing fruits as a star player in your daily food game!

## Try this!

### FROZEN BANANAS

1/2 Banana for each person  
Put whole, non-impacted bananas in the freezer the night  
before for several days before the freezing. The peels will  
turn black.  
Remove the bananas from the freezer and cut off the  
before eating to them.  
Slice the peeled bananas lengthwise to serve. Eat the  
banana right on or the meal with a spoon. Or slice  
horizontally and eat as finger food.



A Serving Of Fruit Is:

- 1 Medium apple,  
banana or orange  
OR
- 1/2 C. chopped, cooked  
or canned fruit  
OR
- 3/4 C. fruit juice

# Staying

## Keep A

Track your eating

### Are you eating to stay healthy?

Knowing which foods to eat and doing it are two different scores! Do you make good food choices for your body whether you eat at home or away? Our bodies need a variety of foods whether we eat them at home or at school, select them from vending machines, restaurant menus or the mall!

Keeping track of what you eat and where can help you decide if your food habits are healthy. If not, start now to create your new pyramid game plan!

**Track your eating habits for 3 days...**

Time	Food Eaten
Morning	
Mid-morning	
Lunch	
Mid-Afternoon	
Dinner	
Evening Snack	

# on Track

## Diary...

habits for 3 days

Place	Servings	Food Groups

### How did you do?

Did you get a variety of foods from each of the food groups?

YES  NO

Which food groups do you need to add to your diet?

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# Fast Food Scoreboard



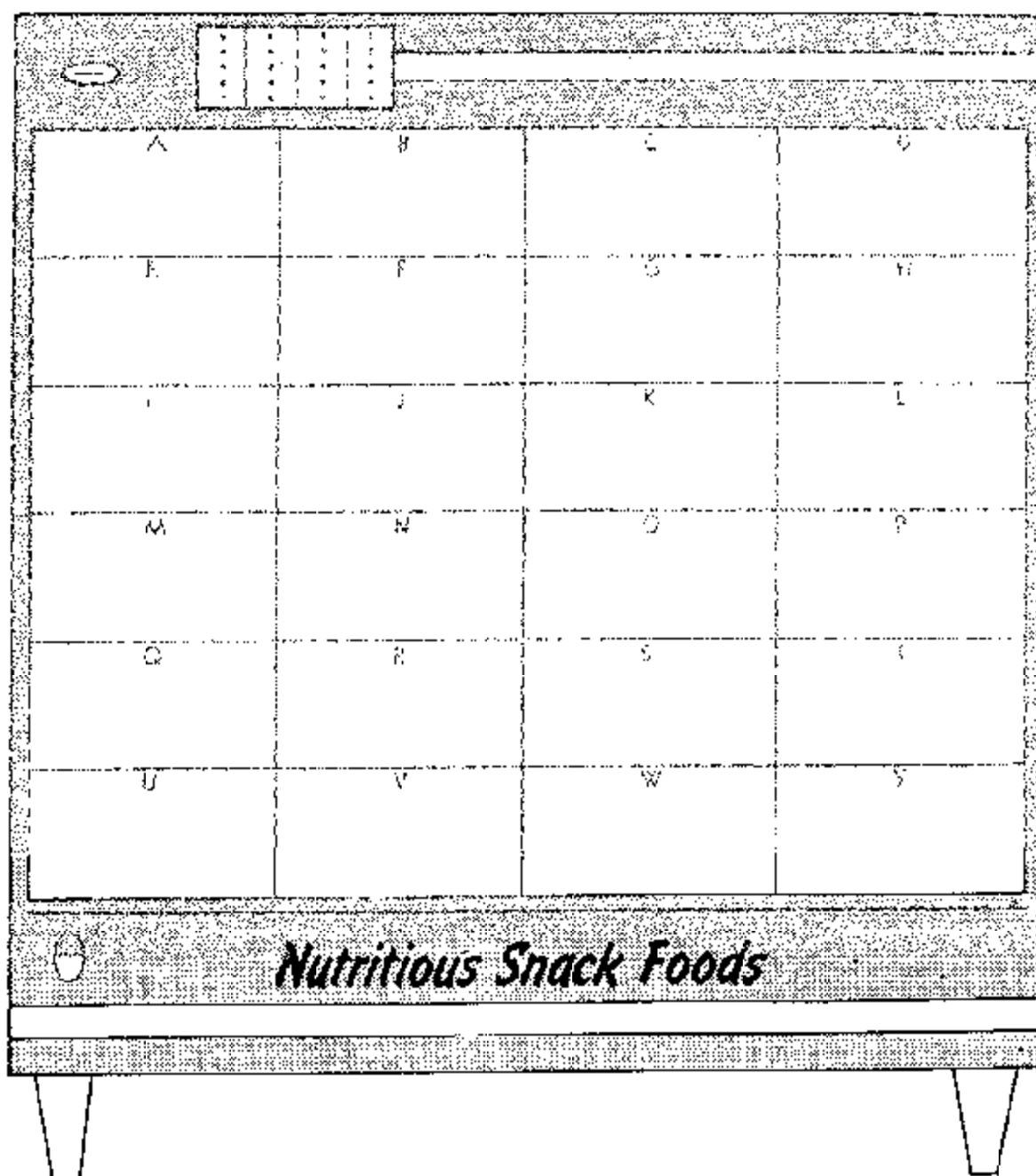
Enjoy fast food meals or snacks with less fat. Remember, you can **order it your way**. Ask them to hold the mayonnaise, tarter sauce, bacon or cheese - or you can remove some of it.

*How much fat is in fast food sandwiches?*

	Teaspoons of fat
Bean burrito	??
Beef or bean taco (regular)	???
Hamburger or Broiled or grilled chicken filet	????
Cheeseburger or Beef burrito	?????
Fried chicken filet	?????
Fried fish filet or Beef or bean taco (large)	?????
Quarter pound or double hamburger	?????
Quarter pound or double cheeseburger	?????
Specialty burger with sauce & cheese	?????
Double specialty burger with sauce & cheese	?????

# Choices on the Run. . .

The choice is yours. Fill the vending machine below with lots of Nutritious Snack Foods. The food should begin with the letter in the box. For example, you might put an apple with peanut butter in the "A" slot. Be creative and see how many different nutritious, delicious snacks you can name. Don't worry if you can't fill each slot, but try to think of at least 10 snacks.





# Be A Super Shopper !



How do you score as a  
**SMART SHOPPER?**

Becoming a "super-smart" shopper involves making wise nutritional and economic choices. The following activities will introduce you to some Super shopping techniques!

Menu Planning is another game plan. It involves writing down what you will have for each meal and snack.

## Shopping List

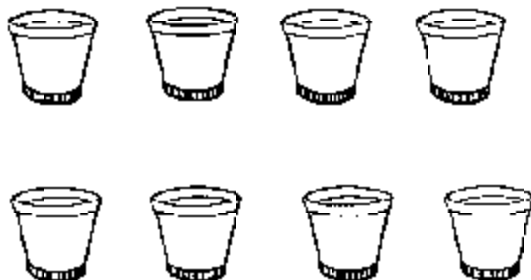
- ✓ Check for a variety of foods .... flavors, colors, textures, temperatures and shapes!
- ✓ Check the food and non-food items on hand and figure how much to purchase
- ✓ Check weekly food specials and coupons in grocery flyers and newspapers. Using the specials in your menu plans can save you money!
- ✓ Write out your grocery list!
- ✓ Compare costs of products. Unit pricing is an easy way to compare costs.
- ✓ Read labels to get the most nutritious food for your money.

**Start being a Super Shopper today by using these smart shopping tips!**

# Figure It Out!

Look at these foods. They both cost 96 ¢

96 ¢



**Eight 6 oz. Servings**

COST/SERVING: 96 ¢ 8 servings  
UNIT PRICE: 12 ¢ /serving

96 ¢



**Four 6 oz. Servings**

COST/SERVING: 96 ¢ 4 servings  
UNIT PRICE: 24 ¢ /serving

WHICH IS THE BEST BUY? \_\_\_\_\_

For the same price you get twice as much juice if you buy the frozen concentrate and add water.

HOW DO UNIT PRICES HELP US? \_\_\_\_\_

Unit prices tell us how much a certain amount (like a pound or ounce) of a food costs.

WHAT IS THE UNIT PRICE (PER 6 oz.) OF THE FROZEN JUICE? \_\_\_\_\_

OF THE READY-TO-SERVE JUICE? \_\_\_\_\_




# LABEL MATCH

A food label serves as a "window" on a package. It gives you the inside facts on the outside. You'll find lots of information is put there to help you buy the product that is right for you.

Find the label information and place the matching # by the part on the label!

1. It tells what's in the container.
2. It tells the brand name.
3. It tells how food is seasoned.
4. It tells the style of pack - whole, slices, pieces.
5. It sometimes shows a picture of the food.
6. It tells how much is in the container.
7. It tells who put the food in the container.
8. It sometimes tells how to use the food.
9. It gives nutrition information.
10. It may have the universal product code symbol.  
(UPC improves checkout service)

Sample Food Label:



**4 HALVES**

# PEACHES


**CAN BE SERVED JUST AS THEY ARE**

**NET. WT. 29 oz.**

PEACHES, WATER, SUGAR,  
AND CORN SWEETENER

Nutrition Facts	
Serving Size 1/2 cup (124cl)	
Servings Per Container approx. 31/2	
Amount Per Serving	
<b>Calories</b> 60	Calories from Fat 0
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 10mg	0%
<b>Total Carbohydrate</b> 15g	5%
Dietary Fiber 7g	4%
Sugars 14g	
<b>Protein</b> 0g	
Vitamin A 3%	Vitamin C 8%
Calcium 0%	Iron 25%

\*Percent Daily Values are based on a 2000 calorie diet.



21144 002  
**ANYWHERE CASSING**

**LABELS HELP YOU KNOW WHAT TO BUY**

# Getting Together: *Shopping Around*

Get together with a friend and select three of your favorite foods that are sold in a variety of food stores. Visit three or four of these different types of food stores, (Supermarket, local grocery store, roadside markets, cooperatives and 24-hour convenience stores). Compare the differences in cost for each of your three favorite foods.

## How did you do?

What did you discover about shopping at different types of food stores?

Price \_\_\_\_\_

Convenience \_\_\_\_\_

Food Quality \_\_\_\_\_

## FOOD ITEM

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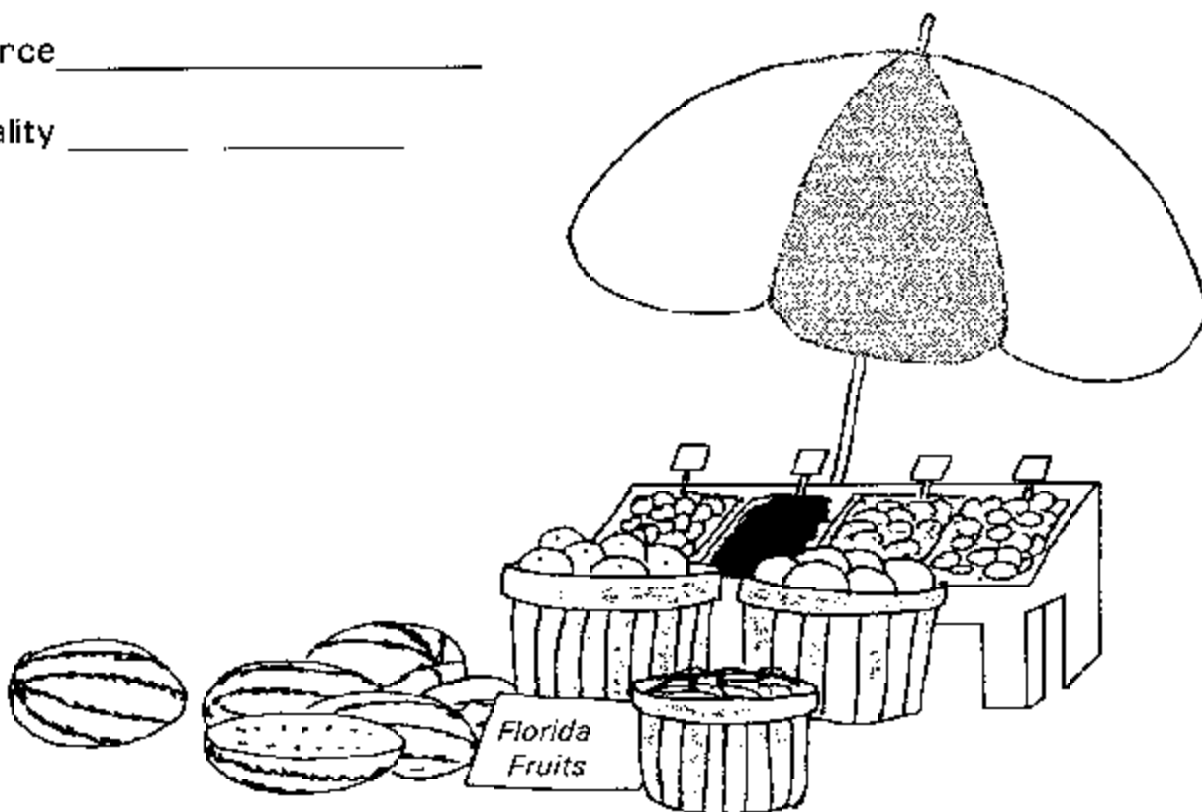
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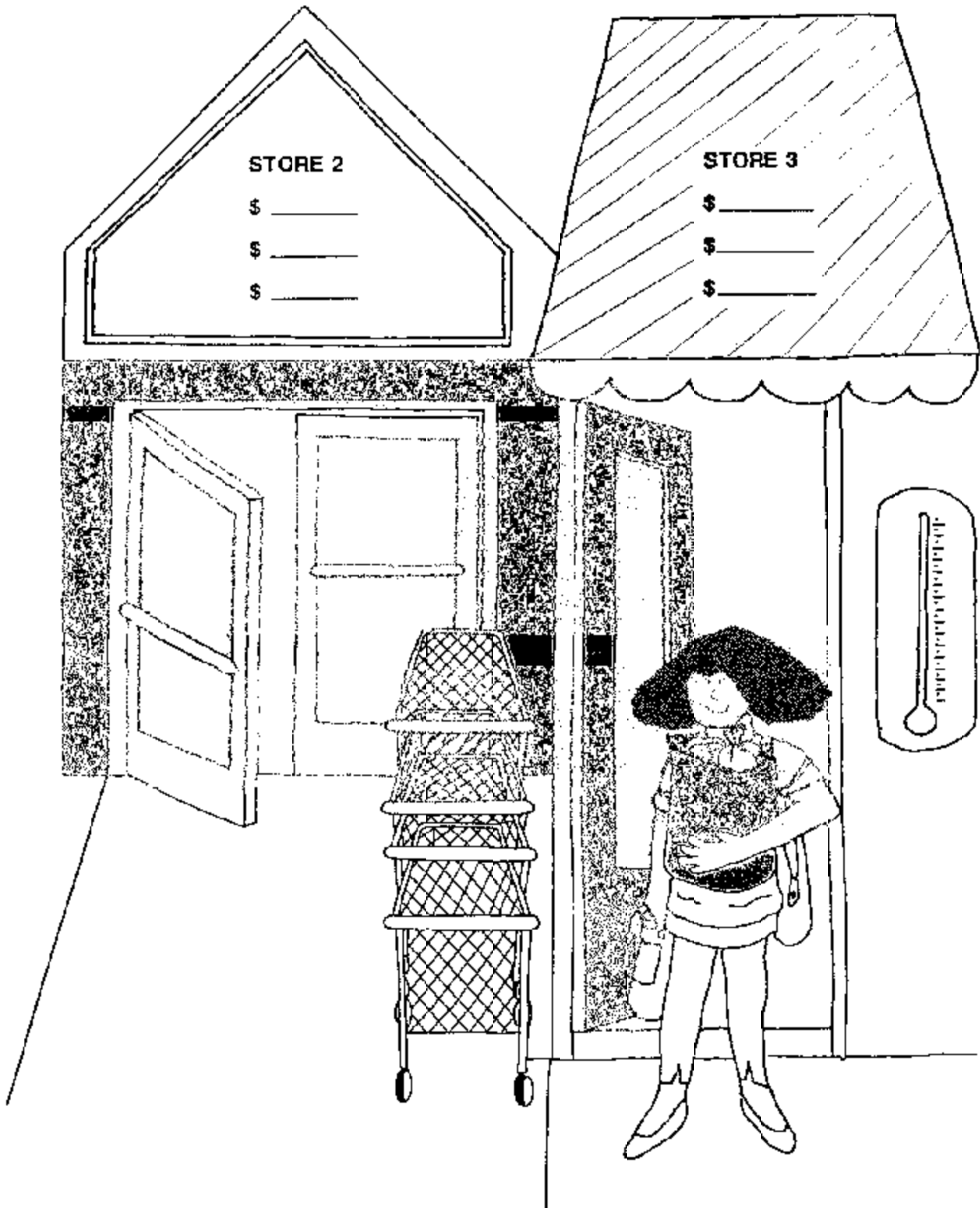
## STORE 1

\$ \_\_\_\_\_

\$ \_\_\_\_\_

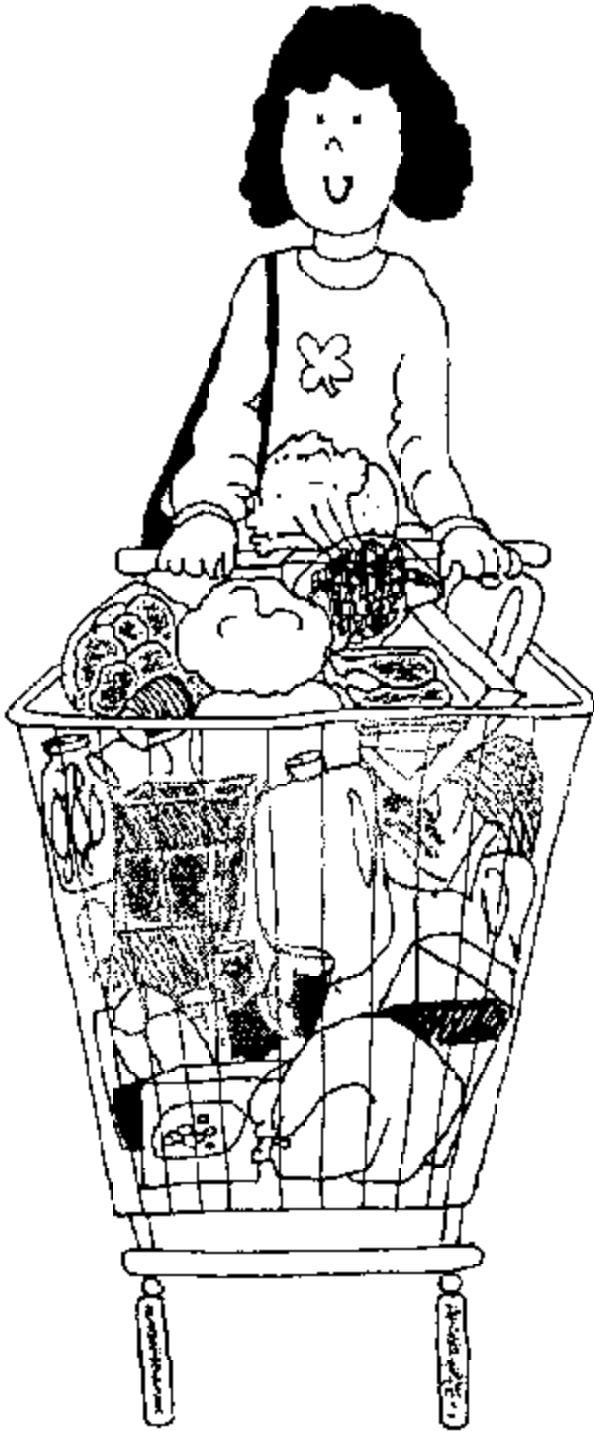
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# Be A Smart Shopper



## What you do:

1. Select one of your family's favorite foods and compare its cost with a store brand and a national brand.
2. Compare the cost of the same food in three different forms - canned, frozen, and fresh.

NATIONAL BRANDS VS. STORE BRANDS		
	National Brand	Store Brand
Name of Food	_____	_____
Weight	_____	_____
Total Cost	_____	_____
Cost Per Unit	_____	_____

CANNED VS. FROZEN VS. FRESH		
FORM OF PACKING	FOOD <i>Green Beans</i>	FOOD
CANNED (weight)	<i>17oz.</i>	
Total Cost	<i>34¢</i>	
Cost Per Unit	<i>2¢</i>	
FROZEN (weight)	<i>10oz.</i>	
Total Cost	<i>79¢</i>	
Cost Per Unit	<i>7.9¢</i>	
FRESH (weight)	<i>1 lb. (16oz.)</i>	
Total Cost	<i>89¢</i>	
Cost Per Unit	<i>5.6¢</i>	

**How did you do?**

1. Which brand was the best buy?

National       Store

2. List the major differences between the two food brands. (Were the ingredients the same?)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Which form of food was the best buy?

canned  
 frozen  
 fresh

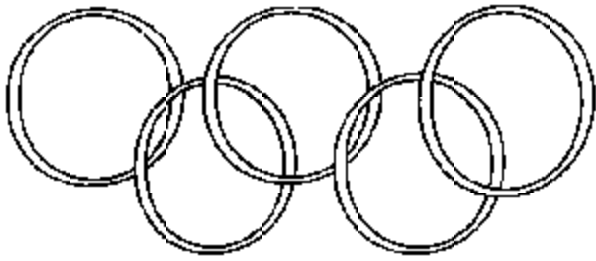
4. Which form of food does your family prefer?

canned       frozen  
 fresh

Why? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# Olympics

**with**

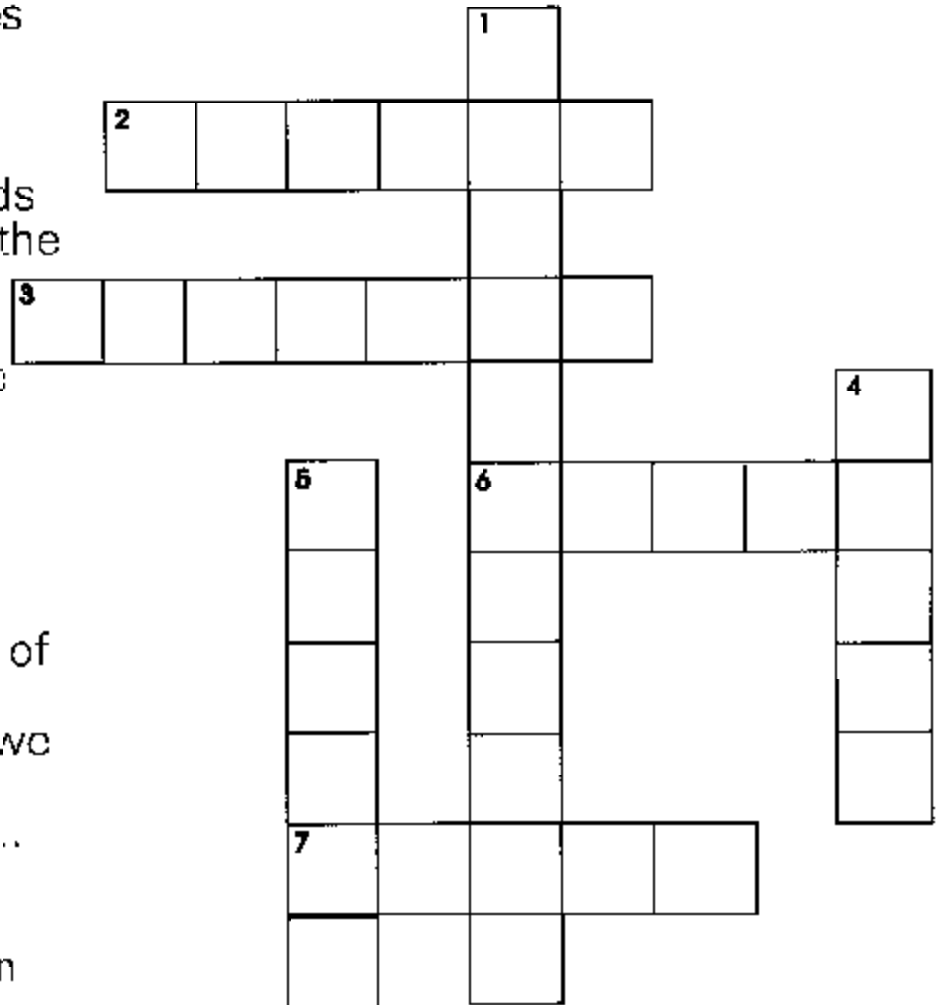
## Cross-Country Games !

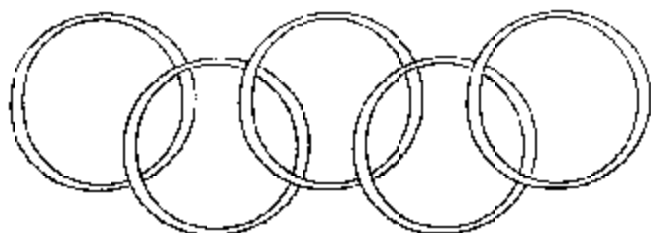
Our food brings together people and represents many different lands just as the Olympics bring together the best athletes from many different countries.

Many of our favorite foods can relate to seasons of the year just as we relate certain times of the year with some of our favorite sports...football in fall, basketball in winter, and baseball in spring and summer!

Foods can also have lots of other meanings...think about how many things we do that involve food...birthdays... celebrations... and family traditions.

Entire cultures are known for the foods they eat.





### ACROSS

2. Ice cream was brought to America from this country.
3. People from this country introduced Americans to sweet & sour foods like sauerkraut, sausages and pickles.
6. They often use spices and brought cumin and curry to this country.
7. Rice is a staple item in the diets of people from this large country.

### DOWN

1. They introduced us to the smorgasboard (buffet style of serving) and the "Danish" pastry.
4. People from this country eat with chop sticks and raw fish is a favorite.
5. They celebrate with fiestas and like to eat chili.

ANSWERS:	Across
	2. France
	3. Germany
	6. India
	7. China
Down	
1. Scandinavia	
4. Japan	
5. Mexico	

# JAPANESE Rice Balls

## Try This!

Prepare approximately 5 cups of short-grained, long cooking rice according to package directions, omitting butter and salt.

Be sure to overcook the rice so that it is very sticky. When rice is still fairly warm, but not too hot to handle, wet your hands, then sprinkle them with a thin layer of salt.

Take a handful of rice and squeeze it tightly so that it is very tightly packed. Pack the rice for about one minute, then shape it into a medium ball.

Press a small piece of canned tuna, a half of an olive, or a small cube of cucumber into the middle of the ball, and reshape it into either a ball or a three dimensional half-circle.

Do the same with the remaining rice. For variety, dried shark or seaweed can be sprinkled on top. These can be eaten hot or cold. Any rice ball containing meat should be refrigerated if not promptly eaten.

Wendy Zech, Franklin County 4-H'er, Ohio 4-H Blue Ribbon Cookbook.

## Pitch the Fork!

Now that you've prepared an Asian-style dish, you might want to eat it as the Asians do.

1. Think of chopsticks as tongs. One always stays still and the other one moves. Try to keep the ends even. (The best way to use chopsticks is to try different ways. Find the one that's easiest for you.)
2. Put one stick between your thumb and first finger, like a pencil. Keep it steady with your third and little finger (or your third and middle finger, whichever is easiest). This is the stick that stays still.
3. Put the other stick in the crook of your first finger and hold it steady with your finger and the tip of your thumb. This is the stick that moves.
4. Relax! Don't hold the sticks too tightly, or they will fall out of your hand. Using just a little pressure, put the chopsticks on your plate so that a piece of food is between the ends. Move the top stick a little so that the food is caught between the 2 chopsticks. Raise the chopsticks and pop the food into your mouth.

# Skills of the Game!

Food FUNdamentals is not complete without practicing the skills of food preparation.

Food preparation is more than just testing and tasting favorite recipes for your playbook. It begins with rules for the game... like **PLAY IT SAFE** for chef safety, conducting equipment checks, practicing the right measures and identifying good food storage and safety zones!

**PLAYING IT SAFE** with food preparation is somewhat like all sports activities...there are rules for personal safety, uniforms and equipment standards, practices that are good or bad, and proper measurements for the playing fields or surfaces. Here are a few basic rules for Food Preparation:

<b>BASIC GAME RULES:</b>	<b>Food Safety:</b>
<b>Personal Safety:</b> <ul style="list-style-type: none"><li>● Range burners should not be left on when not in use.</li><li>● Pot/pan handles should not be turned out over the edge of the stove.</li><li>● Use pot holders to handle hot pots or pans.</li></ul>	<ul style="list-style-type: none"><li>● Always work with clean hands, clean work area and use clean equipment and dish cloths.</li><li>● When possible, always use clean utensils, not your hands, for mixing foods.</li><li>● Use a tasting spoon only once, then wash before using it again.</li><li>● Wash hands and work surfaces with soap and water after handling raw meats, fish, eggs, or poultry.</li><li>● Keep hands away from mouth, hair and nose. Cough or sneeze away from food and cover mouth &amp; nose, then wash hands!</li></ul>

# CHEF SAFETY

- 1 If you have long hair, tie it back.



- 3 Clean the food preparation area with a clean, damp sponge or cloth



- 5 Put the ingredients and equipment you will need on the counter.



- 7 Clean up as you cook.



- 9 Turn off the stove and burners when you are done.



- 2 Wash your hands.



- 4 Read the recipe and make sure you have all the food and equipment you need.



- 6 Measure the ingredients carefully and follow all steps in order.



- 8 Put away ingredients when you are finished with them.



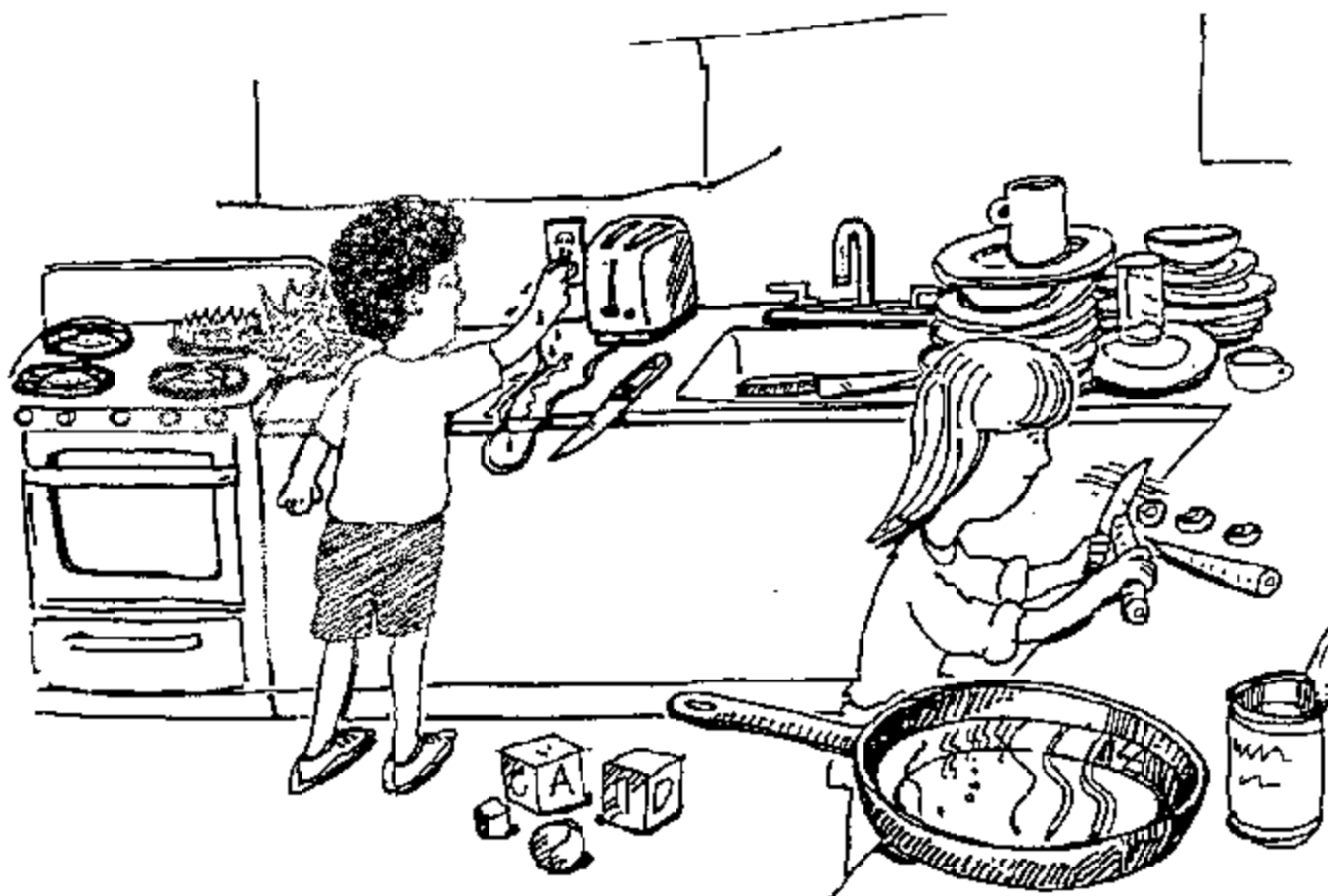
- 10 Wash all dishes with hot soapy water. Do not put sharp knives in the dishwasher.



WASH KNIVES SEPARATELY... It's easy to grab the sharp edges!



# BE SAFE = NOT SORRY!



## UNSAFE PRACTICES

LIST THE UNSAFE PRACTICES IN THE ABOVE PICTURE:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_

8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_



# Equipment

Write the number of each kitchen item next to the correct picture.



# \_\_\_\_\_

① COOKIE SHEET



# \_\_\_\_\_

② CUTTING BOARD



# \_\_\_\_\_

③ DOUBLE BOILER



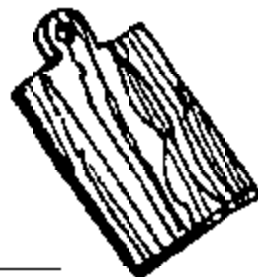
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# \_\_\_\_\_

④ EGG BEATER

⑤ KNIVES



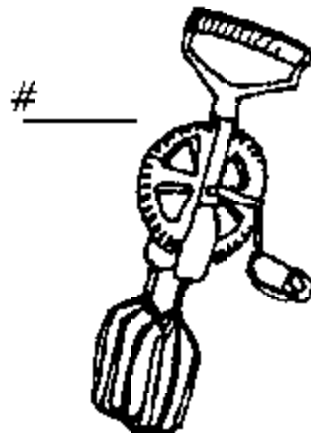
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⑥ MEASURING CUPS



# \_\_\_\_\_

⑦ MEASURING SPOONS



# \_\_\_\_\_

⑧ MIXING BOWL

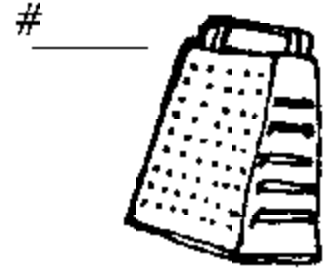


⑨ MIXING SPOONS



# \_\_\_\_\_

⑩ Pie Plate



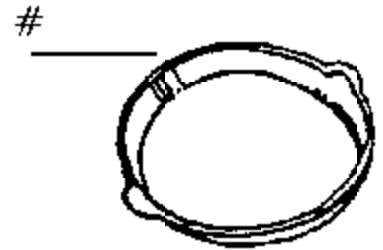
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⑪ Sauce Pans



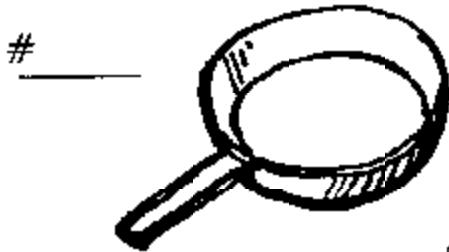
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⑫ SKILLET or Frying Pan

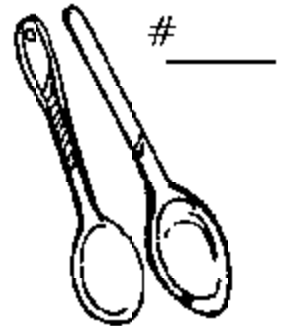


# \_\_\_\_\_

⑬ SPATULAS



# \_\_\_\_\_



# \_\_\_\_\_

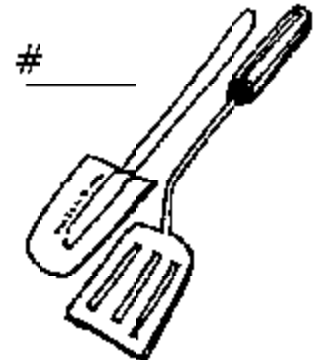
⑭ STRAINER

⑮ Vegetable Peeler



# \_\_\_\_\_

⑯ GRATER



# \_\_\_\_\_



# Measuring Mathmagic!



Do you know your measurements? Match the measurements on the left side with their MATCH on the right side.



3 teaspoons



4 Tablespoons



5 Tablespoons + 1 teaspoon



8 Tablespoons



2 Cups



4 Cups



4 Quarts



1/2 Cup



1 Pint



1 Tablespoon



3/4 Cup



1 Gallon



1 Quart



1/3 Cup

## Food Safety Zones

Preparing foods safely is not the only concern. Another food-handling practice to avoid is improper storage! The penalties for foods not properly stored (just as in preparing food) can be quite serious...resulting in possible food borne illnesses.

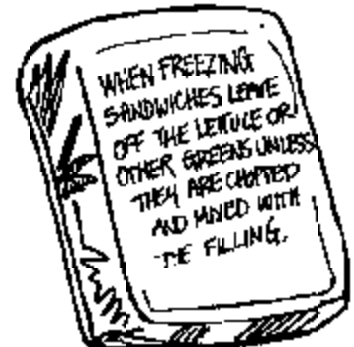
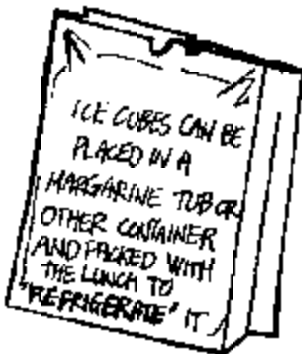
Food spoilage, and food borne illnesses, due to lack of proper storage, result from growth of micro-organisms. Micro-organisms are present everywhere in nature. Given the right conditions...warmth, moisture, and a food source...these micro-organisms grow and multiply causing food spoilage and illnesses.

Some of the most perishable foods that need to be refrigerated or frozen until they are ready to serve are the moist protein products like poultry, meats, seafood, eggs, milk or milk products.

Here are a few precautions to take for safe food-handling:

- ✓ Keep hot food HOT.  
(above 140°F, 60°C)
- ✓ Keep cold food COLD.  
(below 40°F, 4°C)
- ✓ Serve foods soon after cooking or refrigerate promptly.
- ✓ Thaw frozen meat or poultry completely in the refrigerator or by running the package under cold water. Cook promptly.
- ✓ When shopping, purchase meat, poultry or other cold products last and refrigerate or freeze immediately.
- ✓ Never taste food you suspect is spoiled! One taste of *botulism toxin* (poisonous substance) can be deadly.

### Tailgate, picnic and bag lunch tips!



## ***How Did You Score on FOOD FUNdamentals?***

***List the activities completed, foods prepared or things you learned from participating in this project.***

***Pyramid Power...the Food Groups!***

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***Special Effects!***

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***The Nutrient Team!***

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***Staying on Track...Food Choices!***

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***The Importance of Breakfast***

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***Being a SUPER SHOPPER!***

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***Pyramid Plays.....Food Acceptances***

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***Olympics...Food Traditions and Culture***

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***Skills...Food Preparation & Safety***

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***Great Job!!!***

## ***Bibliography of Resources***

***We wish to acknowledge the adaptation or the incorporation of selected materials in the workbook from the following Extension publications.***

***Eating for Pleasure and Health, University of Wisconsin Cooperative Extension, 1991.***

***Eating Right is Basic 2 Series, Michigan State University Cooperative Extension.***

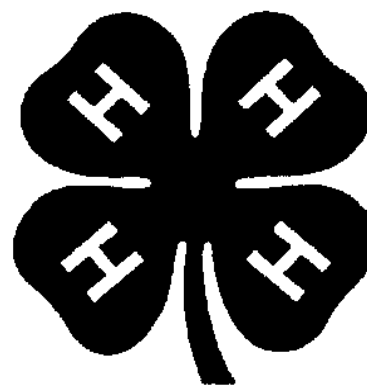
***Getting It Together: Bodies, Budgets & Basic Foods, The University of Georgia Cooperative Extension, 1987.***

***High Feather, Massachusetts Cooperative Extension, 1988.***

Name \_\_\_\_\_

Club or School \_\_\_\_\_

Leader \_\_\_\_\_



**4-H Club Motto**  
**"To make the best better"**

**4-H Club Pledge**  
I pledge

my head to clearer thinking,  
my heart to greater loyalty,  
my hands to larger service, and  
my health to better living, for  
my club, my community,  
my country, and my world.

**4-H Club Colors**  
**Green and White**



Food Fundamentals  
Authors: M. Joy Jordan, associate professor and 4-H youth development curriculum specialist, and Linda D. Cook, associate professor and EFNEP coordinator, Department of Family, Youth and Community Sciences, University of Florida Institute of Food and Agricultural Sciences.

COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF FLORIDA, INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES, Christine Taylor Waddill, Director, in cooperation with the United States Department of Agriculture, publishes this information to further the purpose of the May 8 and June 30, 1914 Acts of Congress; and is authorized to provide research, educational information and other services only to individuals and institutions that function without regard to race, color, age, sex, disability or national origin. The information in this publication is available in alternate formats. Single copies of extension publications (excluding 4-H youth publications) are available free to Florida residents from county extension offices. Information on copies for out-of-state purchase is available from IFAS-Extension Bookstore, University of Florida, PO Box 110011, Gainesville, FL 32611-0011, website: <http://ifasbooks.com>. The 4-H name and emblem is protected under 18 U.S.C. 707. This information was published October 1994, as 4HFNM12, Florida Cooperative Extension Service. Revised March 1999. Printed 10/02; reviewed 6/02