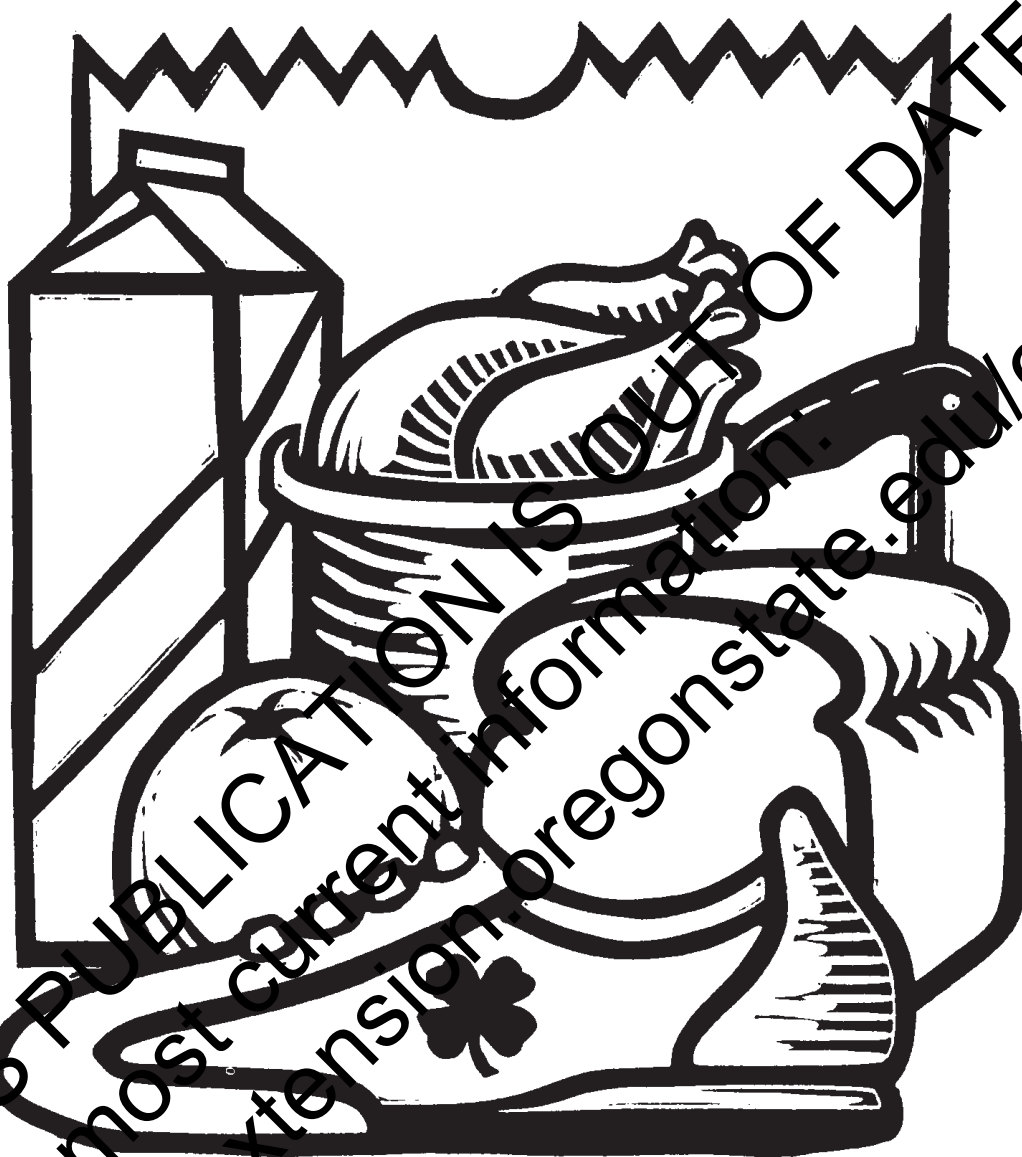


FIT IT ALL



TOGETHER

This introductory unit on food and nutrition has been prepared in consultation with the National 4-H Food & Nutrition Developmental Committee composed of representatives of Extension Service, U.S. Department of Agriculture and the Cooperative Extension Services of the State Land-Grant Universities.

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Congratulations and thanks for volunteering to be a 4-H food and nutrition leader. The experience can be fun and educational for you and the 4-H'ers.

This guide will help you in planning and conducting activity-filled meetings for the 4-H'ers in your group. It is designed for use with the 4-H food and nutrition project Fit It All Together. It contains suggested learning experiences, additional nutrition information not contained in the Member's Manual, and suggestions for follow-up.

The 4-H project Fit It All Together introduces 9- to 12-year olds to

- basic information about nutrition, including the latest dietary guidelines
- information on fitness and a healthy lifestyle
- food preparation skills
- consumer information
- tips on food and kitchen safety
- information on foods of many cultures

We teach them to fit these elements together as they would fit together pieces of a puzzle.

The tested recipes are easy to prepare, relatively low in cost, and teach beginning cooks the basic skills they will use in a lifetime of cooking. Basic nutrition principles are also discussed throughout the book. By reading the information, preparing the suggested foods and participating in the activities, 9- to 12-year olds can begin to establish healthy eating habits that will last all their lives.

And that's why your role is so important. You are doing much more than providing young people with a few opportunities to cook great-tasting food. You are also help-

ing them to establish the habits that will lead them to a healthier lifestyle. Young people who adopt these good health habits now probably will live longer lives. They certainly can be expected to live healthier lives. Your own family members may benefit, too, from the diet and fitness suggestions in the book.

Here's How the Leader's Guide is Organized

The first few pages provide you with some general information on a variety of topics such as obtaining equipment, working with young people in this age group and organizing this project. The rest of the Leader's Guide discusses each of the lessons in the Member's Manual specifically.

You'll find a list of all the skills and information taught in each lesson. Next, we offer some suggested activities for you to use with a group. They are intended only to spark your creativity — if you think of other activities that you would prefer to use, do so. The section entitled "Preparation Pointers" contains specific information about the food preparation in each lesson. We have suggested some topics for discussion while the 4-H'ers are eating (this can also be a time when you help them learn appropriate behavior during meals.) The section called "Notes" expands on one or two topics covered in the lesson, providing additional information and resources. Finally, you'll find some suggested activities for the 4-H'ers to complete following the meeting. These activities will help reinforce the skills they have just learned.

Answers to Some Basic Questions

Q. Where should I hold the meetings?

A. A home — yours or a member's — is probably the most convenient for you. The school home economics department or cafeteria are other possibilities. Because the rooms are larger and have more equipment, your group could be a little larger. Ask your school principal or home economics teacher about this. Possibly your local Extension office could accommodate a group, if the kitchen is large enough and has enough equipment. A local church or community center may also make its kitchen facilities available. Participants might be divided into teams of two or three, with each person assigned responsibility for doing part of the preparation. You should do this planning in advance.

Q. How about equipment and supplies?

A. You may find that you do not have enough measuring cups and spoons, muffin tins, cookie sheets and large mixing bowls in particular. You may ask each 4-H'er to bring some of the necessary equipment from home, or you may decide to borrow some from a friend or neighbor.

Some clubs handle the supplies by having each member bring one of the ingredients to the meeting. There is some risk involved in this method, however — the member responsible for bringing the ground beef may be ill on the day you're making chili.

More work for you, but less nerve-wracking, is to make a grocery list yourself and purchase the necessary supplies for each meeting. You may charge a small registration fee at the beginning of the project to cover the cost of these supplies. Check with your Extension Agent, too — funds may be available to assist you.

If you have a junior or teen leader working with you, this is one task you could assign to him or her. Finally, parents may be called on to help you in this, and many other ways. Remember, parent support is critical. Keep parents informed and involved. They can — and want to — assist you in many ways.

Q. What about member records?

A. The back two pages of the Member's Manual contain space for 4-H'ers to record their activities during this project. You should ask the members to fill out their records prior to each meeting. You may use a discussion of the records as a way to review the major skills that the 4-H'ers have learned and practiced during the week. At some point in each meeting, check to see that the members have updated their records.

Q. Why a puzzle?

A. We have used a puzzle throughout the Member's Manual because it is one way to visually illustrate several of the key ideas stressed throughout this book. For example, it is important that young people fit together foods from the various food groups to have a balanced diet. But it is equally

important that they fit together their intake of calories with their expenditure of calories — too many calories consumed and they will gain weight, too few consumed and they will lose weight.

You can emphasize the puzzle idea in several of your meetings. You can also stress that the puzzle pieces that may be right for one person may be wrong for another, and that it's important for them to fit together the pieces of their own healthy lifestyle.

Q. How do I prepare for each lesson?

A. Before you begin, read the entire Member's Manual and the Leader's Guide. If you have some questions after reading the books, ask your County Extension Agent for additional information. B. Before each meeting, carefully read the entire lesson yourself. It is important to reread the Member's Manual since information is presented there that is not necessarily repeated in the Leader's Guide.

C. Read the suggested activities and plan for each meeting in the Leader's Guide. Consider how these activities fit your needs. Write your own plan for the meeting.

D. Assemble the food and materials you need for cooking or other learning activities.

E. Arrange for members to help, including preparation, arranging the room, shopping and cleanup.

F. Assist demonstrations for the next meeting. (The How To section in each lesson will give you some ideas for starters.)

G. After each meeting, evaluate for yourself how the meeting went. Keep a notebook and write any changes you would make if you taught this unit again.

How do I turn the 4-H project *Fit It All*

Q. Together into 8 or 9 activity-filled learning experiences?

A. Here's one plan for setting up your meetings

Meeting 1 Pretest; Piece Together a Pizza, Member's Manual, pages 4, 5, 6, 7 & 8.

Meeting 2 Fit in Fitness; Wholly Cow, Member's Manual pages 9, 10, 11 & 12.

Meeting 3 Calories and Fitness; Great Things from Grain, Member's Manual pages 13, 14, 15 & 16.

Meeting 4 A Rainbow of Flavor, Member's Manual, pages 17, 18 & 19.

Meeting 5 Primarily Protein; Putting the Food Groups Together, Member's Manual, pages 20, 21, 22 & 23.

Meeting 6 Grocery Store Trip, Member's Manual, pages 24 & 25.

Meeting 7 Be Chewsy: Snack Smart, Member's Manual, pages 26 & 27.

Meeting 8 Fast Break for Breakfast; Post-test, Member's Manual, pages 28 & 29.

Another Way

Lessons have been planned to build on skills taught in a previous lesson. However, you do not

need to have a meeting for every lesson. Some of you may want to do fitness separately. This would work well, especially if your group does the skit suggested for Meeting 1. Meeting 2 would then include the skit, a discussion about nutrients, and Fit in Fitness. There would be no cooking in this meeting. If you are going to have fewer meetings with your group, we would suggest doing the first five meetings and any of the last three.

Be sure to fit in fitness. From Meeting 2 on:

- Have a member do a short fitness demonstration from the fitness bars in the Member's Manual or other sources at each meeting.
- Ask the members to record in their manuals the fitness activities they have done since the last meeting.
- Try a group fitness routine to begin each meeting (stretching, exercising to music, etc.) Have a group of the members develop this activity. Whatever activities you do, be sure to include fitness in each meeting.

9. How do I emphasize skills?

A. The Member's Manual builds cooking, food preparation, food and kitchen safety, consumer and fitness skills. Make a poster picturing the skills to be taught each week. (They are listed for each lesson.) A member or your teen leader can help you with this. Have the members check themselves to make sure they have mastered the skills from the previous meeting (here is where their own records are necessary). Ask members to demonstrate various skills in the meeting. If you have access to a camera, take pictures of the 4-H'ers practicing these skills. The photos will be a good way to review the progress they have made at the end of the project.

9. What are the nutrition needs of this age group?

A. Youth and adolescents are considered to have the least desirable food habits of all age groups. Although they need additional nutrients during this period, many youth and adolescents have diets that are nutritionally deficient. Specifically, 9- to 12-year olds are apt to have diets that are deficient in iron, calcium, and the B-vitamins. Other nutrients frequently found deficient are vitamin A, vitamin C, zinc and magnesium. Many of these essential nutrients are found in fruits and vegetables, cereals and breads.

Many young people are overweight. This is a critical period for overweight youngsters, because the odds against an obese 12-year old attaining normal weight as an adult are 4 to 1. If the youngster does not lose weight by the end of adolescence, his or her chances against attaining normal weight rise to 28 to 1. The solution to overweight in most cases is to increase energy output rather than to decrease food consumption, since if youngsters cut back too much on their food intake, their diets may not contain adequate amounts of essential nutrients.

Young people also need to begin good health habits now that can carry them through their later lives. They should make sure they get enough water — six cups or more of liquid each day is a good rule to

follow. They should learn to avoid the overuse of salt, which is believed to contribute to high blood pressure and stroke in some older people.

Working with 9- to 12-year-olds

In general, 9- to 12-year olds

- **Are growing rapidly.** This is especially true of the girls. Young people in this age group may seem awkward at times because their ability to control small muscles is not as well-developed as their large muscle control. The coordination between their eyes and hands may also be weak. You can help them develop coordination skills by fitting in fitness during each lesson. This will also provide the 4-H'ers with a release for some of their energy. You can also help by being understanding if they are unable, for example, to measure small amounts such as 1/4 teaspoon without help.

- **Are extremely curious.** You will find that 9- to 12-year-olds are constantly asking "why." You do not need to answer all their questions. In fact, they will learn by finding answers to their own questions. Encourage a few group members to find out answers and report back at a later meeting.

- **Have a short interest span.** You can help by keeping activities short and easy to understand. Most of the recipes in this book are for foods with short preparation times.

- **Want to have more control over their lives.** Yet their ability to make decisions is limited. You can help by offering them a choice between two or three items. You can also assist them in making realistic choices that are actually achievable, as in the lifestyle quiz.

- **Want to feel they are contributing to their family.** They value making a grown-up contribution to the welfare of their family. You can encourage them to share the skills they are learning with their families. Perhaps you can even set aside a regular portion of your meeting to ask 4-H'ers to share what they have done at home since the last meeting.

- **Need your approval.** Young people in this age group need to relate to an older person outside their family. You can help by being supportive and by giving praise. You do not need to make a long speech — in fact, this may make the 4-H'ers self-conscious. A simple statement, such as "It's a pleasure to teach when you work like this," or "I bet your mom and dad would be proud to see the job you did on this," or even "Good work," is sufficient.

MEETING 1

PIECE TOGETHER A PIZZA

Food to be prepared: Snack pizzas

Key Points

Nutrition

- Food is necessary for all living things — to provide materials for growth and energy for activity.
- Digestion is the process of breaking down food into nutrients the body can use.
- There are more than 50 different nutrients, and all are necessary.
- Nutrients are actually used by the cells; different nutrients are used for different purposes. (Protein is used for building cells, vitamin A for healthy eyes, etc.)
- To get all the nutrients necessary, eat a balanced diet, including
 - some food made from grains (4 servings daily)
 - some vegetables and fruits (4 servings daily)
 - some milk, cheese or dairy food (3 servings daily)
 - some meat, poultry, fish or beans (2 servings daily)
 - not too much sugar, salt or fat
- No one food can provide all the nutrients necessary for life, so it is important to eat a variety of foods.
- What is a serving? It varies with the type of food.
 - 1 orange is a serving, 2-3 ounces of hamburger is a serving, 8 ounces of milk is a serving, etc.

Food Preparation

- How to prepare to cook: wash hands, restrain loose hair, protect clothing
- Preparing snack pizzas
- Assembling ingredients and equipment

Food & Kitchen Safety

- Using the oven safely and efficiently: preheating, knowing where dials are located, moving oven racks before the oven is turned on, saving energy.
- Using pot holders to remove hot pans from the oven.

Suggested Activities for Your Meeting

1. Ask 4-H'ers to list all of the things they have done since they got up this morning — brushed their teeth, ate, ran for the bus, studied, played. Then ask them where they got the energy to do all of these things. Point out that it is from the food they eat. Our bodies cannot use food until it has been digested and broken down into nutrients, which are carried to the cells, where they do their work.
2. You are what you eat. Have 4-H'ers lie on large pieces of newspaper or butcher paper (available from your local office supply store or possibly your local newspaper). Have someone trace the outline of each of their bodies onto the paper. Then have them divide the outline into a puzzle with five pieces — 4 large and 1 small. Have them label each piece with the name of one of the five food groups (reserve the small piece for the 5th food group). During the next week, have the 4-H'ers keep track of everything they eat for 2 or 3 days. Each item should be entered into the appropriate puzzle piece. (They may wish to cut

out pictures from magazines, or use wrappers or labels to make their puzzle more attractive.) Bring these puzzles to the next meeting. Discuss what they learned about their eating habits: are they eating too much of one food? Not enough of another? Is there one food group they especially need to eat more of? Let the 4-H'ers know that they really are what they eat.

3. Nutrition skit. Have some of all of the group write and produce a skit, with props and costumes, about the nutrients and how they work together. Have them use music and humor to make the learning more enjoyable. Brainstorm about the possibilities at the meeting, and have the kids put on the skit at the next meeting. If the skit is good, have the group put it on for some younger children in school or at another club.

Note: Some readers may wish to use only one of these ideas. Or these may give you some thoughts about other activities that would be more your style. They are intended — as are all suggested activities in this Guide — to provide you with a springboard for your own creativity.

Preparation Pointers

1. Go over the checklist for getting ready to cook (Member's Manual page 6).
2. Look at the oven your group is using. Have a member point out the dials, show how to set the oven for bake and broil and move the oven racks. Then preheat the oven for this recipe (racks in the center, preheated to 400°).
3. Prepare the pizzas.

While you are eating

Discuss the food groups and serving sizes.

Near the end of the meeting

1. Take the lifestyle quiz on page 8. Have members discuss how they can make positive changes.
2. Have the members fill in the answers on page 6 in the Member's Manual. Discuss.
3. Complete How Did It All Fit Together?
4. Clean up. Emphasize especially in this first meeting that cleanup is an important part of any food preparation activity. Let the members know that their parents will be much more willing to let them cook at home if they know that their kitchen will be left clean.
5. Plan for your next meeting.

Notes

Balanced diet — All the nutrients for health are in the food that we normally eat. Most foods contain more than one nutrient. Milk, for example, provides protein, fat, carbohydrate, riboflavin and other B vitamins, vitamin A, calcium and phosphorus — among others.

Yet no single food supplies all the essential nutrients in amounts necessary. Milk contains very little iron or vitamin C. So it is important to eat a variety of foods to make sure that we get enough of

all the nutrients necessary. The idea of a balanced diet is to get the needed nutrients and not more calories than the body needs to maintain an ideal weight.

Emphasize to the 4-H'ers that the best way to insure that they are getting enough of the nutrients they need is by eating food from all the food groups — and eating a variety of foods within the group. That way, they will be relatively sure that they are supplying their bodies' nutritional needs.

Food groups — You will note that this manual divides food into five food groups. A fifth food group — fats and sweets — is now identified because many doctors and nutritionists believe that most Americans should reduce their consumption of these foods. Because the 4-H'ers in your club are beginning health habits they will carry into adulthood, it is important to help them use moderation in consuming these foods.

Interrelationship of nutrients — Nutrients work in a partnership with one another. Vitamin D, for example, helps the body use calcium and phosphorus found in other foods. Vitamin C helps the body absorb iron. This is another reason why it is important to eat a variety of foods. Often the combinations of foods work together to increase the nutritive contribution of the foods to our bodies.

Additional activities for followup.

Have the members:

1. List two of their favorite foods and the major nutrients contained in those foods. (This could be presented as a poster, a talk, or demonstration.)
2. Plan a menu for one day. Make sure it contains enough servings of all the food groups. If possible, prepare some of the foods on the menu and eat them.
3. Think of other dishes that contain some foods from each of the five foods groups (for example, tacos). Find or draw a picture of those dishes and put it on a poster. Around the outside, label each of the ingredients and indicate to which of the 5 food groups each of the foods belongs.
4. Game for members to play during the meeting or at home: On a piece of paper, list each of the 5 food groups. Leave space beneath each heading for a short time (2-3 minutes), each person is to jot down as many foods as he or she can think of, putting each under the correct food group — eg., oranges under vegetables and fruits; hamburger under meat,

poultry, fish or beans. Count one point for each correct answer, and subtract one point for each incorrect answer. Winner is the person with the most points.

PRETEST — LIFESTYLE QUIZ

You can do the pretest on page 8 in the Member's Manual at the beginning or the end of your meeting. The purpose of the test is to get 4-H'ers to look at themselves, not to compare themselves to others. It is designed to help them think about what they do now and also to show some ways they can begin to move toward a healthier lifestyle.

1. Tell the group that they will take the test twice — once now and once in 8 or 9 weeks when they have finished the project.
2. Ask them to read the questions carefully and answer them truthfully.
3. This is important so they will be able to see how they have changed.
4. Take the test yourself.
5. Afterwards, you might discuss:

• Which area they see is in need of most improvement.

- Which thing will be the hardest for them to change.

• How they can help one another.

Ask them to remember that a healthy lifestyle — like a puzzle — is made up of many parts. They may have no problems in some areas, and need more improvement in others. But the answers to these questions will help them see some changes they should make for themselves.

Tell them not to get discouraged if they see lots of room for improvement. Have them start small and make one change. When they've adjusted to that one, then they can make another. It's important not to set goals that are too difficult, or they won't even try. But once they've made one change, they should keep going. (This is where your role as leader is critical. You can help the members make choices about changes they can realistically achieve. "I'm going to lose 10 pounds by next week" is not a realistic goal. But "I'm going to cut out high-calorie snacks and exercise for 15 minutes a day" is a realistic goal.)

MEETING 2 FIT IN FITNESS

The majority of American children, according to fitness tests given in elementary and secondary schools, are in poor physical shape. Like many adults, children are often too inactive. They are driven to school. They spend hours sitting watching TV. They are more often spectators than participants in athletics.

As a result, children are beginning to show many of the same health problems that are a risk to their parents — obesity, high blood pressure and other disorders that could lead to heart problems as they grow older.

Obesity is the greatest nutrition problem of young people in this age group. And at least one major

study has found that overweight girls do not eat significantly more than their normal-weight peers, but they do exercise significantly less.

That is why we have placed such emphasis on fitness in this book. Good nutrition *does* include keeping fit and active. And, in turn, a healthy diet is essential for anyone who wants to be fit.

We define "physical fitness" as including at least 3 parts:

Strength Maximum amount of work muscles can do in one effort

Flexibility Amount of movement a bone can make in any direction around a joint

Endurance How well a group of muscles can continue to work over a long period of time.

There is one additional component of fitness, known as cardiovascular fitness. Since the body cannot store oxygen the way it stores fuel, oxygen must move through the bloodstream every second of the day. When we exercise, our bodies require more oxygen. So it is important to strengthen the heart and lungs. The resting pulse rate for most young people this age is between 70 and 100 beats per minute. Exercise, by making the heart and lungs stronger, actually reduces the pulse rate.

In order to develop strength and endurance, many experts feel children should have 15 to 30 minutes daily of continuous activity that exercises muscles, raises the pulse rate, and stimulates deep breathing. There are many ways young people can get this exercise — dancing, walking fast, running, bicycling, and swimming are all good. In the fitness bars throughout the Member's Manual we have tried to show examples of sports that can be enjoyed by all ages, so young people and their families can begin learning activities they can enjoy all their lives.

A person can be very fit and never participate in competitive athletics. Athletics provide young people with opportunities to get fit. But many young people are unable — or unwilling — to participate in group athletics. So we have emphasized fitness activities that are noncompetitive and can be done alone or with a small group of friends.

For additional information on fitness, contact your local physical education teacher or write to the President's Council on Physical Fitness and Sports, 400 Sixth Street NW, Washington, DC 20204, or the American Alliance for Health, Physical Education, Recreation and Dance, 1900 Association Drive, Reston, VA 22091.

Foods to be prepared: Orange Smoothie, Nachos

Key Points

Nutrition

- Milk & cheese group includes dairy products (butter is not included).
- Group provides calcium, vitamins B and D and protein in the diet.
- 9- to 12-year-olds need 3 servings daily. A serving is 8 ounces of milk or 2 1-inch cubes of cheese or 1 cup of yogurt.

- Calcium is needed to help build and maintain bones, teeth and other tissue. Calcium is especially important for young people at this age, many of whom have diets that do not include enough calcium.

- Fortified low-fat milk has the same nutrients, but with fewer calories, than whole milk.

- Milk products (cheese, yogurt, milk) make nutritious snacks.

Food Preparation

- Grating cheese
- Measuring dry ingredients
- Measuring liquid ingredients
- Using measuring spoons
- Using an egg beater
- Making nachos — general directions
- Making orange juice drink — general directions

Food & Kitchen Safety

- Using pot holders
- Putting oven racks where they should be before oven is turned on
- Storing milk and other dairy products safely

Historical/Cultural

- Origin of cheese
- Other animals that give milk to people around the world

Suggested Activities for Your Meeting

1. Ask 4-H'ers to list all the foods from the milk and cheese group they have eaten in the last 2 days (the picture in the Member's Manual may provide some hints). Did they have 3 servings daily? Talk with them about their favorite foods from this group, and ask them to list foods they have never eaten, but might like to try.
2. Taste test. Bring in several different foods from this group — whole milk, skim or 1% milk, yogurt, a few flavors of cheese (one strong, one milder) and perhaps a little ice cream. (You could also make up some dry reconstituted milk, chill it and serve along with other milks to see if the kids could taste the difference.) Ask the 4-H'ers to try some of the products and to describe their taste and texture.
3. Measuring practice. Make up several containers of water with food coloring added to make 2 or 3 different colors of liquid. Also use some fine sand as a substitute for other dry ingredients. Have members — alone or in pairs — measure the colored liquid into liquid measuring cups and measuring spoons. ("Add one-half cup of red liquid, a teaspoon of blue liquid and a tablespoon of yellow liquid to your bowl.") (It's less messy if you do these two steps separately, but the kids may enjoy it more if they get to mix them together.)

Preparation Pointers

1. Read the recipe(s) and assemble the ingredients.
2. Demonstrate grating cheese.
3. Demonstrate using an egg beater.
4. Prepare the beverage and/or the nachos

While you are eating

Discuss the importance of calcium to people in this age group.

Near the end of the meeting

1. Have the 4-H'ers do cleanup.
2. Complete How Did It All Fit Together?
3. Make sure record books are updated.
4. Plan for next meeting.

Notes

Calcium — Calcium is necessary for building strong bones and teeth. It is especially important for young people in this age group and throughout their teenage years, since they are growing rapidly. Yet many studies show that young people this age do not get enough calcium. You can help the young people in your club by encouraging them to get 3 servings daily from the milk and cheese group. Point out that there are other ways to get calcium besides drinking 3 glasses of milk daily. Two 1-inch cubes of cheese provide as much calcium as a cup of milk. One cup of yogurt also equals a cup of milk in its calcium content. One-half cup ice

cream equals one-third cup milk in calcium but, of course, it is higher in calories.

Butter — Butter, because of its high fat content, is now included in the 5th food group.

Additional activities for followup.

Have the members:

1. Prepare a poster or collage comparing the different kinds of milk available for sale in their grocery store. Compare prices, calories and nutrition. Be sure to include powdered milk.
2. Find and prepare a recipe featuring a food from the milk and cheese group. Serve it to their family, or bring it to the next meeting for everyone to taste.
3. Check in the store for the kinds of fresh milk they can buy. There will probably be whole milk, 2%, and skim. There may be 1% or 1/2%.
4. Grate cheese for a family meal.
5. Invent their own snack drink using milk as a base.

MEETING 3 CALORIES AND FITNESS

Key Points

Nutrition

- Calories are not nutrients. They are a unit of measurement, like inches or pounds. They measure the amount of energy contained in food, but they also measure the amount of energy expended during activity.
- In order to lose one pound, you must take in 3,500 fewer calories than you use over a period of time.

Fitness

- If you take in the same number of calories that you use, you will maintain body weight. If you take in more calories than you use, you will gain weight.
- The best way to lose weight is through a combination of diet and exercise.

Suggested Activity for Your Meeting

1. Bring in a book or list showing the calorie count for many foods. Have the 4-H'ers choose two of their favorite snacks — one they think is high in calories, and one they think is low. Find the actual calorie count of these snacks. Then, by looking at the chart on page 13, have them figure out how many minutes it would take to use up the calories contained in those snacks if they were doing something quiet and something active.

Notes

The school nurse or their own doctor may help the 4-H'ers determine what their ideal body weight should be. You should be aware that most kids of this age are extremely sensitive about their bodies. Many of them do need to make some changes in their eating and activity patterns so that they can either gain or lose weight. You can be supportive of their decision, and show them some ways they can begin to make those changes.

Additional activity for followup.

Have the members:

1. Keep track of their activities and food for one day. How many calories did they use up (approximately)? How many calories did they consume?

GREAT THINGS FROM GRAIN

Foods to be prepared: Hot Tuna Sandwich, Pita Bread and Chicken Sandwich

Key Points

Nutrition

- Bread & cereal group includes foods made from all grains such as rice, corn meal, and whole grain or enriched flour.
 - Group provides B vitamins, iron and some fiber of whole grain in the diet.
 - 9- to 12-year-olds need 4 servings daily from this group — 1 slice of bread is 1 serving.
 - Bran and the germ contained in whole grains provide fiber and some nutrients not found in white flour.
 - You should include some whole grains in the diet.
 - Breads and cereals in reasonable amounts are not fattening. But the things you put on them — butter, margarine, preserves — add calories.
- Food Preparation**
- Guidelines for sandwich making
 - use a variety of breads, including whole grains
 - use leftovers and consider cost

- mix colors, textures and food groups
- use different foods
- Pita sandwich — general directions
- Making an open-faced, cooked sandwich
- Building a meal around a sandwich
- Chopping vegetables
- Cleaning up and putting away

Food & Kitchen Safety

- Using a knife safely
- Using a cutting board
- Making a safe sandwich

Consumer

- Identifying whole wheat products (label reading)
- Storing bread
- Using leftovers
- Breads and cereals are economical

Historical/Cultural

- History of the sandwich
- Danish smørrebrød
- Pita bread

Suggested Activities for Your Meeting

1. Ask 4-H'ers to list all the foods from the bread and cereal group they have eaten in the last 2 days. The picture in the Member's Manual may provide some hints. Talk about their favorite foods from this group and ask them to list some foods they have never eaten but might like to try.
2. Bread try-out. Bring in 2 or 3 slices of 4 or 5 different kinds of breads. Be sure to include some whole grains. Cut the bread into small pieces and have the 4-H'ers taste and describe each. See if they can identify which breads were made from whole grains. Talk about the role of whole grains in the diet.
3. Label reading. Bring in samples of 3 or 4 bread labels. Ask 4-H'ers to figure out which are whole grain breads. What other information can they find out about the bread by reading the label?

Preparation Pointers

1. Read the recipe(s) and assemble the ingredients.
2. Review guidelines for creative sandwiches.
3. Demonstrate slicing vegetables. Emphasize knife safety.
4. Prepare the sandwiches.

While you are eating

Discuss favorite sandwiches. What is the most unusual sandwich they have ever eaten? Are there any interesting sandwich recipes in their families?

Near the end of the meeting

1. Have the 4-H'ers do cleanup.
2. Complete How Did It All Fit Together?
3. Make sure record books are updated.
4. Plan for the next meeting.

Notes

Enriched and whole grain flours — Whole grain or enriched flours are sources of some protein, and are an important source of protein in vegetarian diets. "Enriched" white flour has restored many of the nutrients lost during the milling process. But because enriching does not restore certain trace nutrients and because whole grains contain fiber, it is a good idea to include some whole grains in the diet.

Fortification — Many products contain the word "fortified." This means that vitamins and minerals have been added above and beyond the natural product.

Fiber — Dietary fiber, which some people call "bulk," is plant material the human body cannot digest. Fiber is helpful in preventing constipation. Since bulky foods are filling, fiber may help some people lose weight. Some studies indicate that fiber may help prevent some chronic diseases of the large intestine. There is no specific recommendation for the amount of fiber necessary in the diet. Good sources of fiber are whole grain breads and cereals, bran, dry peas and dry beans, nuts, fruits and vegetables — especially those that are unpeeled or have edible seeds.

Economical — The least expensive food is not always the most economical. Rather, the food that provides the greatest amount of nutrients for the cost may be considered to be the more economical.

Additional activities for followup.

Have the members:

1. Find and prepare a recipe featuring another food in the bread & cereal group (rice, corn meal, pasta). Serve it to their families or bring it to the next meeting for everyone to taste.
2. Go through the bread aisle at the grocery store. Pick out 6 or 7 different kinds of bread products and list their names and whether they are whole grain or not. What information can be found on labels?
3. Make a bread & cereal group poster or collage. Include information about nutrients found in this food group.
4. Do a bread-making demonstration. Try an unusual bread such as zucchini, sauerkraut or pumpkin.
5. Bring in and prepare 2 or 3 different kinds of hot or cold cereals. Have a tasting. Have other club members read nutrition labels and compare.
6. Slice vegetables for their family meals.
7. Invent their own sandwich. (A sandwich contest would be a fun group activity.)

MEETING 4

RAINBOW OF FLAVOR

Food to be prepared: Stir-fry broccoli

Key Points

Nutrition

- Vegetable & fruit group includes all vegetables and fruits.
- Group provides vitamins A and C in the diet, and is a good source of fiber.
- 9- to 12-year-olds need 4 servings daily. A serving is 1 orange, 1/2 grapefruit, or 1/2 cup of most vegetables and fruits.
- It is not always necessary to add salt to vegetables — try other seasonings instead.
- Vegetables should not be overcooked.
- Even a green salad can be high in calories if it is covered with a lot of salad dressing.

Food Preparation

- Stir-frying
- Fruit and vegetable snack suggestions

Food & Kitchen Safety

- Stir-frying safely
- Don't put your face over a pot lid as you remove it from pot — you could get burned by the steam

Consumer

- Comparing a vegetable found in the grocery store in a variety of forms, e.g., fresh, frozen, dried, canned.

Buying fresh fruits and vegetables.

Suggested Activities for Your Meeting

1. See how many fruits and vegetables the 4-H'ers are familiar with. Name a color and see how many different fruits and vegetables the club members can name. If you wish, you could actually make a "rainbow of flavor." Draw and color a large rainbow. Have 4-H'ers find pictures of fruit and vegetables (food magazines, seed catalogs and packages would be helpful here) to place on the appropriate stripes of color.
2. Have 4-H'ers bring to the meeting a fresh vegetable that they think is not too common. Examples might be eggplant, turnips or okra. Have them share with the club how they usually serve this vegetable at home. Decide which club member has brought the most unusual vegetable.
3. Practice using chopsticks. Small pieces of bread or soft fruits like bananas make easy first foods to eat with chopsticks. See which club member can pick up the smallest piece. You might (if space permits) even have a chopstick race. Divide the club into two teams. Each team member must pick up a piece of food, walk a certain distance, then eat it.

Preparation Pointers

1. Read the directions for stir-frying and assemble the ingredients.
2. Demonstrate stir-frying. Be sure to dry off the vegetables.
3. Have the 4-H'ers prepare the stir-fry broccoli. Make sure each child has a chance to do some of the stir-frying.

Near the end of the meeting

1. Have the 4-H'ers do cleanup.
2. Complete How Did It All Fit Together?
3. Make sure record books are updated.
4. Plan for next meeting.

Notes

Buying fruits and vegetables "in season" — All fruits and vegetables have growing seasons. But there are some foods that people don't want to be without. So they are grown in various parts of the country at different times and shipped to stores all year long. (A food may be out of season in the North, but in season in the South.)

However, fresh fruits and vegetables usually cost the least when they are bought locally in season. They're the highest priced off season, or when the season is just beginning and everyone wants them but there aren't enough to go around yet.

Here are examples of the times when fruits and vegetables are in season.

Apples: fall and winter

Bananas: all year good supply

Blueberries: June-August

Cantaloupe: May-September

Cherries: May-August

Corn: May-August

Cucumbers: available all year, most plentiful in May-July

Grapefruit: October-June

Grapes: June-December

Oranges: November-June

Peas: January-June

Strawberries: April-June

We are able to enjoy our favorite fruits and vegetables all year because they are canned or frozen. During the off season, frozen or canned fruits and vegetables are usually of better quality and more economical.

Does overcooking vegetables reduce nutrients? — All vegetables lose some nutrients during the processes of harvesting and traveling to markets. Modern methods have reduced this to a minimum if the produce is kept cold, frozen or canned. In home cooking, vitamin C is the most likely to be lost in preparation, because it is soluble in water. To reduce vitamin C loss, keep produce chilled, frozen or canned until cooking, start in boiling water, use little water, cover the pan and reduce the heat, cook only a short time and serve quickly.

Eating a variety of foods from this group — Vegetables and fruits provide most of the vitamins A and C in the diet. However, foods in the group vary widely in the amount of these nutrients they provide. Dark-green and deep-yellow vegetables are good sources of vitamin A. Most dark-green vegetables, if not overcooked, are also a good source of vitamin C, as are citrus fruits, melons, berries and tomatoes. Dark-green vegetables also provide B vitamins, iron and magnesium. And certain greens — collards, kale, mustard, turnip and dandelion —

provide calcium as well. Nearly all vegetables and fruits are low in fat.

Additional activities for followup.

Have the members:

1. Write their own fruit funnies.
2. For one week, try adding different seasonings

instead of salt to their vegetables.

3. Stir-fry vegetables for their family at home.

4. Create an ad campaign for a vegetable. Have the 4-H'ers study how products are advertised (a catchy slogan, attractive pictures, perhaps a jingle), then create their own campaign to convince other club members to eat a fruit or vegetable.

MEETING 5

PRIMARILY PROTEIN

Food to be prepared: Chili

Key Points

Nutrition

- Protein, a part of each cell in our bodies, is necessary to all life. It is sometimes called the body's "building blocks."
- Meat, poultry, fish and beans group contains both plant and animal foods — meat (beef, lamb, pork, etc.), poultry (chicken, turkey, etc.), fish, shellfish (crabs, oysters, lobster, etc.), dry peas or beans, soybeans, lentils, eggs, seeds, nuts, peanuts and peanut butter.
- Need 2 servings daily. One serving is 2-3 ounces of meat, poultry or fish, or 1/2-3/4 cup dry beans or peas.
- There are both complete and incomplete proteins
- It is important to reduce the amount of fat in the diet.

Food Preparation

- Frying ground beef and pouring off the fat.
- Making chili — general directions
- Preparing a whole meal
 - timing
 - eye appeal
 - making a whole meal by adding salad and milk.

Food & Kitchen Safety

- Using a wooden spoon
- Pouring off fat safely

Consumer

- Tips on buying ground beef
- Although the lowest priced ground beef has the most fat, it is usually the most economical on the basis of cost per ounce of protein.
- Sometimes it is desirable to buy the higher-cost, low-fat ground round (e.g. for making hamburgers), sometimes the lower-cost, higher-fat ground beef will do (e.g. making chili). Decide which to buy based on what it is to be used for.

Historical/Cultural

- Combinations of food in various cultures that make up complete protein.

Suggested Activities for Your Meeting

1. Prepare the chili first. It should simmer for at least 30 minutes, and longer cooking will improve the flavor.
2. While the chili is simmering, talk about protein and its place in the diet. Protein is especially important for building and repairing all the cells of the body. But if you eat more protein than you need,

it's simply used for energy or becomes fat. Kids in this age group need quite a lot of protein because they are growing. But protein alone will not build muscles — only a combination of protein and exercise can do that.

3. Discuss complete and incomplete proteins. Ask 4-H'ers if they have ever combined incomplete protein to make a complete protein.

4. Know your beans. Dry cooked beans, a good source of protein, come in many varieties. And regions of the country have specific bean favorites. Bring in samples of some of the kinds of dry beans available in your area and discuss how they are used. Examples might be Boston baked beans (navy or pea beans), pinto beans (West), black beans (Cuba and Puerto Rico), red beans (South).

5. In this meeting, 4-H'ers have an opportunity to make a complete meal. Discuss timing a meal so everything is finished at the same time. Discuss planning a meal to meet nutritional requirements.

Preparation Pointers

1. Read the recipe for chili and assemble all the ingredients.
2. Demonstrate browning meat. Spoon off fat, discuss why this is important.
3. Have the 4-H'ers make the chili.
4. Make, or have members bring, a salad.
5. Set the table (this makes a good demonstration).

While you are eating

Talk about putting the food groups together. Reemphasize the importance of eating a variety of foods. Ask the 4-H'ers to talk about ways they have changed their diet since beginning this project. Are they eating more fruits and vegetables? More foods made from grain? Are they eating fewer high-calorie, low-nutrient foods?

Near the end of the meeting

1. Have the 4-H'ers do cleanup.
2. Complete How Did It All Fit Together?
3. Make sure record books are updated.
4. Plan for your next meeting.

Notes

Complete vs. incomplete protein — Protein is part of each cell in our body and is used to build new cells. This is especially important when young people are growing rapidly. Proteins contain amino acids, which are the "building blocks" of the new cells. Eight of these amino acids cannot be

manufactured by our bodies, and must come from the food we eat.

Foods that contain all eight of these essential amino acids are called complete protein. All animal protein, except gelatin, is complete. Plant proteins are lacking one or more of the essential amino acids. It is interesting to note how many foods traditionally combined in various cultures, like corn

tortillas and red beans, chick peas and cracked wheat — are ways to combine incomplete proteins. Other ways to combine proteins include serving grains and legumes: peanut butter and whole wheat bread, or rice and beans; serving milk products with grains: macaroni and cheese, cereal with milk; or serving seeds and legumes: dips of garbanzo beans and sesame seeds.

Additional activities for followup.

Have the members:

1. Sponsor a chili cook-off. Share family or favorite recipes for chili.
2. Try to prepare a whole meal at home.
3. In the grocery store, try to find at least 5 foods that are primarily protein. Some should be animal protein, some plant protein. If the store has unit prices, have them compare the cost per pound.
4. Find a recipe that combines incomplete protein to make complete protein. Prepare it for club members or family.

PUTTING THE FOOD GROUPS TOGETHER

Key Points

Nutrition

- Fats and sweets are contained in the 5th food group.
- Eat a variety of foods from the other 4 food groups first.
- Use caution in amounts of food eaten from the 5th group.
- Sweet sticky foods can cause cavities, so brush your teeth after eating them.

Fitness

- Balance your intake of calories with your activity level.

Suggested Activities for your Meeting

1. Have the 4-H's think about how often they eat foods contained in the 5th food group. If they are eating too much food from this group, how could they substitute? Remind them that they do not have to give up foods in this group.

Suggested activity for followup.

Have the members:

1. Make a menu for the entire family for one day. If possible, help prepare the food on the menu and serve it to the family.

MEETING 6 GROCERY STORE TRIP

Key Points

Label Reading

- Labels contain information necessary for making shopping decisions. Some information must be on every label (name, weight, form or size of food, name and address of manufacturer). Most labels will contain ingredients, in order of predominance by weight. If they do not, the product is a standard of identity product.
- Many labels now provide nutritional information about calories, serving size and nutrients contained in various foods.

Consumer

- Unit prices help consumers compare products when looking for the best buy.
- Smart shoppers can save money in a variety of ways.

Preparation Pointers

This lesson can be a lot of fun for the 4-H'ers, and it can provide a way to include parents in club activities as well. Your main job in preparing for this meeting will be to set up the grocery store trip so that it is a successful visit for everyone.

1. Two to three weeks before your planned visit, telephone the store manager. Ask him or her to help you arrange for the visit. Most store managers will be delighted to meet briefly with the 4-H'ers if they are given enough notice to fit it into their schedules. You may wish to send the manager a copy of the lesson the club members will be following while they are in the store.

2. Find parent volunteers to drive the club members to the store. Let the parents know that this will be an opportunity for them to share with their children. (Too often parents are asked to drive but not to participate in the activity. This is too bad — supportive parents are the best advocates for 4-H in your community.)

3. Meet briefly before the trip with the parents who will be driving. Give them a copy of the questionnaire to read, and ask if they have any questions. They will be able to help the 4-H'ers find the answers to the questions they may have while they are in the store.

While you are in the store

1. Explain to the 4-H'ers they are to fill out the answers to the questions in the manual. Tell them that they are to look for different answers to the

same question. For example, everyone shouldn't read the ingredients on the canned corn. (You may wish to divide them by aisles for part of the questions.)

2. You and other parents should check frequently with the 4-H'ers to see if they are having particular problems or questions. If there is one particular question that seems to be presenting everyone with difficulty, call the 4-H'ers together and help them find the answer.

3. Tell the 4-H'ers to think of this as a treasure hunt — they are to try to find as many different answers as possible.

4. Arrange for your group to have a picture taken with the store manager. If you are interested in publicity for your group, make sure the picture is black-and-white.

After you have completed the visit

1. Either arrange to meet afterwards or plan to discuss at your next meeting the things that the 4-H'ers learned.

2. Have each club member write a thank-you letter to the store manager. Write one yourself.

3. To get publicity, contact your local newspaper.

send a copy of your photograph, and briefly describe what the group members did during their visit. Be sure to identify those in the photograph and mention your name, the group name, the store's name and the manager's name.

Additional activities for followup.

Have the members:

1. Collect additional consumer information. This could be from articles in magazines, additional research in the library, talking with the County Extension Agent, or by writing for the government's Consumer Information Catalog (Department G, Pueblo, CO 81009).

2. Review what they have learned about consumer skills and being a smart shopper. They might want to organize a Consumer Fair, which could include posters, written information, demonstrations of skits. This could be presented to an elementary school, another group — or even for adults in shopping centers or club meetings. Additional topics to be covered could include using coupons, or buying economical cuts of meat.

MEETING 7

BE CHEWSY: SNACK SMART

Foods to be prepared: Skillet Balls, Deviled Eggs

Key Points

Nutrition

- Snacks can be an important part of a good diet.
- How often you eat is not as important as what you eat.
- Some snacks, high in calories but low in nutrients, are said to contain "empty calories" (nutrient density).
- Choose snacks with less sugar and fewer calories.

Food Preparation

- Hard-cooking an egg.
- Making deviled eggs
- Making a sweet roll a snack

Food & Kitchen Safety

- Whopping and storing deviled eggs

Suggested Activities for Your Meeting

1. Discuss favorite snacks with the 4-H'ers. Are these snacks nutritious? Could they think of some alternative snacks that might be more nutritious?
2. Discuss the relationship of snacks to activity level and to weight as part of the total daily diet. Point out that some snacks are inappropriate choices for overweight or nonactive young people

Preparation Pointers

1. Read the recipe(s) and assemble ingredients.
2. Demonstrate hard-cooking an egg. Boil one egg for 15 minutes. Then hard-cook another egg following directions in the Member's Manual. Have the 4-H'ers compare the two. Which looks more appealing? Which is rubbery?

Have the 4-H'ers prepare the snack(s).

Near the end of the meeting

1. Have the 4-H'ers do cleanup.
2. Complete How Did It All Fit Together?
3. Complete record books.
4. Plan for your next meeting.

Notes

Is snacking nutritious? — We are a nation of snackers. Most American kids eat or drink something at least 8 times a day. Snacks can — and should — make a contribution to a nutritious diet. They should be considered as part of the total diet.

Snacks are especially important with this age group, because 9- to 12-year-olds can control what they eat for snacks. Their other meals may be determined by what the family is eating. So it is important to help young people make smart choices about the snacks they eat.

Emphasize with the 4-H'ers:

1. Choose snacks that are nutritious for the number of calories they provide. That idea is sometimes called "nutrient density," and means that foods should provide significant nutrients in relationship to the calories they contain. The example given in this lesson is a comparison between a soda pop and a glass of orange juice. While the orange juice contains slightly more calories than the soft drink, it also contains many nutrients. All of the snack suggestions given in this lesson meet those requirements.

2. Balance snack choices with activity level and total foods eaten during the day. There is no reason to suggest that young people who are in the normal

weight range must give up sweets altogether. But since these foods are usually high in calories, it's wise to match total daily calories with activity level so the number of calories eaten is about the same as the number of calories expended. Ask 4-H'ers to think of different ways they might spend an afternoon after school — working around the house, watching TV, reading a book, playing basketball with friends. Then ask them to think of some snack suggestions that would be appropriate for those activity levels.

MEETING 8

FAST BREAK FOR BREAKFAST

Foods to be prepared: Hot chocolate mix, muffins

Key Points

Nutrition

- A good breakfast is an important part of a nutritious diet.
- Young people who don't eat breakfast don't do as well in school as they would if they did.
- A good breakfast doesn't have to be time-consuming.
- Rules for a nutritious breakfast:
 - choose alternative foods you like
 - help younger family members choose nutritious breakfasts
 - eat a variety of foods, from at least 3 of the food groups
 - plan ahead so that breakfast preparation doesn't have to take lots of time.

Food Preparation

- Making muffins
- Greasing pans
- Alternative muffin recipes
- Making hot chocolate breakfast mix

Historical/Cultural

- Foods other people eat for breakfast — Japanese eat soup.

Suggested Activities for your Meeting

1. Have the 4-H'ers discuss the importance of a good breakfast. What was the most unusual breakfast they ever ate? What is their favorite breakfast? What do they usually eat in the morning? Discuss the importance of breakfast in getting our bodies off to a good start in the morning.
2. Make a breakfast puzzle. Show examples of two or three breakfasts that do not contain foods from at least 3 food groups. Have the 4-H'ers identify what's missing from the puzzle and how they could make it a more nutritious meal.

Preparation Pointers

1. Read and assemble the ingredients for the recipe(s).
2. Demonstrate making muffins. Emphasize the

Additional activities for followup:

Have the members:

1. Create their own nutritious snacks. Serve them to their family or bring them to the next meeting to share.
2. Create a cookbook of nutritious snacks.
3. Create a chart or poster showing how to match snacks with activity level.

importance of having the correct oven temperature and of not overmixing. Try an experiment — have one muffin mixed a long time. See what happens.

3. Have the 4-H'ers prepare the recipes. If the 4-H'ers have an opportunity to enter muffins in competition, obtain standards for judging.

Near the end of the meeting

1. Have members take the lifestyle test again. Have them compare their new scores with their original ones. Then talk about their improvements and how they can continue to move toward a healthy lifestyle.
2. Have the 4-H'ers do cleanup.
3. Complete How Did It All Fit Together?
4. Make sure record books are complete.

Suggested activities for followup.

Have the members:

1. Invent an unusual breakfast sandwich. (This would make a fun contest.)
2. Study breakfasts around the world. Share what they have learned.
3. Talk with parents and grandparents about their favorite breakfasts when they were younger.

Notes:

Over 40 percent of Americans do not eat any breakfast at all. And of those who have breakfast, many drink only a cup of coffee. Yet nutritionists know that an adequate breakfast is essential for a healthy diet. And several studies have confirmed that children who do not eat breakfast do not do as well in school as their peers who do eat breakfast.

The most frequent excuse for not eating breakfast is lack of time. Most breakfasts are eaten in less than 5 minutes. The recipes in this lesson are for nutritious, quick breakfasts. Help the 4-H'ers think of others.

Some kids may not like traditional breakfast foods. Encourage them to think of different foods for their morning meal. Soup, chicken, and cheese are nontraditional, but can be part of a nutritious breakfast.

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