Texas A\&M System

# 4-H <br> Food \& Nutrition Resource Guide 

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## To agents, program assistants, volunteer leaders, and parents using this resource guide:

The committee that developed this resource saw the need for a centralized location for many of the resources used everyday for the $4-\mathrm{H}$ Food \& Nutrition project. This resource guide provides information and links to research-based information that should be used when teaching $4-\mathrm{H}$ members. It can be used by county Extension agents, 4-H program assistants, 4-H volunteer and project leaders, and parents to assist $4-\mathrm{H}$ members with many aspects of their food and nutrition project learning experiences.

Each section of this guide is divided by category, if applicable, and by age. We hope you find this a great tool in your county $4-\mathrm{H}$ program.

Sincerely,
The 4-H Food \& Nutrition Issue Group

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## Volunteer Information

## Volunteer Overview

Volunteers are Texas AgriLife Extension Service's most important commodity, and volunteers are a valuable resource to the Texas 4-H Program. Volunteers want to know what they are expected to do, how much time and effort it will take, and what they will receive in return for their time and effort.

## The 4-H Project Leader

4-H project leaders provide structured learning experiences, personal guidance, and counseling for 4-H members enrolled in their project. A food and nutrition project leader position description is included in this curriculum. It provides an outline of the roles and responsibilities of a food and nutrition project leader, in addition to project resources that are available.
Volunteers should work with their county Extension agent to gain a clear understanding of their role as a project leader.

4-H participation influences the way young people think, act, and feel. Youth participate in 4-H activities when they are fun and interesting.
As a 4-H volunteer, you have tremendous influence in determining the learning that takes place within your 4-H project group. Adult volunteers also have the task of making the learning experiences attractive to youth.

Most volunteers can become effective teachers, but they may need help to gain confidence, be organized, and start the project. County Extension agents are available to help volunteers remember that teaching is:

- a matter of sharing what they know with 4-H members,
- helping members learn,
- a flexible process, and
- understanding how children learn.


## The 4-H Project

As a 4-H volunteer, you will find that projects are useful tools for teaching a wide variety of skills to young people. The primary objective of all projects is to help them become more capable adults by learning basic life skills such as planning, setting goals, making decisions, and evaluating alternatives. Volunteers must understand the life skills development objective and support it through their actions.

An overall goal of 4-H is to help each member develop his or her capabilities to the fullest. Volunteers must recognize that while they are teaching subject matter, they are helping members understand themselves, their role in society, and the skills needed for living.

## Organizing Your 4-H Project Group

Project work allows 4-H volunteer leaders to teach and youth to learn new skills and gain new knowledge. Each project group should be organized in cooperation with the club's organizational leader.
The time that a project group begins and finishes its activities for the year depends on the plans and activities at the club and county levels. Meet as often as is necessary to complete the project.

Many project groups meet once a week for two or three months until the projects are completed, while other groups meet twice a month for four or five months.

## Planning the Project Meeting

Project group meetings must be planned well in advance. Members should be involved in completing some type of work before the next meeting, which helps the leader plan the next project meeting and makes efficient use of time.

Project group meetings are based on what the youth need to learn or do to complete their project work. Such meetings are most valuable when the club members and parents are actively involved and know their specific responsibilities.

## Parental Involvement

To be successful, a 4-H program must have parental involvement. Although 4-H leaders and Extension agents may interest youth in becoming members, they need the parents' goodwill and support to keep them interested, enthusiastic, and active. Parents strongly influence the attitudes and accomplishments of their children.

The expectations of volunteer leaders, Extension agents, and 4-H members greatly affect the kind and extent of parental cooperation received. When parents are involved only peripherally and not informed about club activities, little cooperation can be expected. Parents must be informed about the 4-H program and project activities and be given opportunities to participate in project activities.

## Additional Information

Additional information for club managers and project leaders can be found on the publications page of the Texas 4-H website at: http://texas4-h.tamu.edu/publications/index.html (select "club management" link).

# Texas 4-H Food and Nutrition Project Leader Position Description 

Title:Food and Nutrition Project Leader for $\qquad$ 4-H Club/ Project Group in $\qquad$ County

4-H Project Leader Advisor: County Extension Agent - 4-H and Youth Development, or county Extension agent serving as county 4-H coordinator
Purpose of the 4-H Project Leader: Provide structured learning experiences and personal guidance, as well as counseling in food and nutrition project opportunities for 4-H members enrolled in the Food and Nutrition project.

## Benefits of serving as a 4-H Project Leader

- Gain and/or enhance knowledge and skills in the Food and Nutrition subject matter area.
- Be a significant part of the educational and developmental process for youth.
- Foster the development and growth of successful youth-adult partnerships.
- See the impact that the 4-H and Youth Development Program has in the county.
- Experience personal growth from serving as a project leader.


## Responsibilities of the 4-H Project Leader

- Be familiar with and adhere to the Texas 4-H rules and guidelines.
- Provide positive, structured learning experiences for youth enrolled in the Food and Nutrition project.
- Request training and project materials through the club manager or county Extension agent.
- Become acquainted with the project and activities related to the Food and Nutrition project. The project experiences are listed in the Texas 4-H Clover, found online at: http://texas4-h.tamu.edu/publications/.
- Obtain a list of 4-H members in the club/county who are interested in the Food and Nutrition project.
- Develop an annual project plan based on:
- project educational objectives,
- level of members' experiences,
- members' specific interests, and
- resources available.
- Conduct project meetings and activities.
- Assist members with setting goals and keeping records of achievements in the project.
- Provide opportunities for 4-H members to participate in other 4-H activities and events.
- Involve members as junior and teen leaders.
- Encourage parental interest, involvement, and support of 4-H activities.
- Coordinate project group activities with the club manager and other leaders of the club.
- Provide recognition for members and supporting parents/adults.


## Qualifications and Special Skills

- Reside in the county.
- Register as a direct volunteer for the county 4-H program by completing a Texas 4-H Volunteer Application for the current 4-H year.
- Pass a criminal background check through the Youth Protection Standards Program within the past three years.
- Participate in volunteer orientation.
- Value the development of positive life skills in youth.
- Value diversity among youth and other adults involved in the 4-H program, creating and maintaining a 4-H project experience where all children feel welcome and opportunities are made available.

Time Required: Project leaders serve a one-year term. The 4-H year runs from September 1 through August 31 of the following year. 4-H projects are implemented throughout the year; however, project events and activities are sometimes concentrated over a span of a few months.

## Resources and Support Available

- USDA "MyPyramid"
- Dietary Guidelines for Americans
- Eat 5 to 9 a Day
- The Whole Grains Council
- Gateway to Government Food Safety Information
- Partnership for Food Safety Education "Fight Back"
- ADA - American Dietetic Association's Complete Food and Nutrition Guide, 3rd Edition
- FOOD - AAFCS Food: A Handbook of Terminology, Purchasing, and Preparation, $11^{\text {th }}$ Edition
- Texas AgriLife Extension Service publications:
- Irradiation of Raw Poultry - L-5076
- Electron Beam - $21^{\text {st }}$ Century Food Technology - SP-157
- Food and Fiber Curriculum
- Nutrient Needs at a Glance - L-1875
- Safe Home Food Storage - B-5031
- National 4-H curriculum (http://www.4-hcurriculum.org/)
- A - Six Easy Bites
- B - Tasty Tidbits
- C - You're the Chef
- D - Foodworks
- Foods Group Helper's Guide
- Microwave - Group Activity Helper's Guide
- Microwave 1 - Bag of Tricks \& Treats
- Microwave 2 - Micro Magicians
- Microwave 3-Amazing Rays
- Microwave 4 - Pesto Meals
- Yea 4-H! 6-8, S.W.A.T. Unit (2008 scheduled release)


## If interested, respond to the Texas AgriLife Extension Service office in your county.

I, $\qquad$ , agree to serve as the 4-H project leader for the project, meeting the qualifications and fulfilling all responsibilities.

## MyPyramid Resources

## Background Information

For background information regarding the development of wellness policies for all 50 states Action for Healthy Kids
http://www.actionforhealthykids.org

## Kindergarten thru $3^{\text {rd }}$ Grade

MyPyramid for Kids
Poster
http://teamnutrition.usda.gov/Resources/mpk poster.pdf
Advanced Poster
http://teamnutrition.usda.gov/Resources/mpk poster2.pdf
Coloring Page
http://www.mypyramid.gov/kids/index.html
$3^{\text {rd }}$ thru $5^{\text {th }}$ Grade
MyPyramid for Kids
Use the same posters as listed for Kindergarten thru $3{ }^{\text {rd }}$ Grade
MyPyramid Blast Off Game
http://www.mypyramid.gov/kids/kids game.html
A Close Look at MyPyramid for Kids http://teamnutrition.usda.gov/resources/mpk close.pdf

MyPyramid for Kids Worksheet
$\underline{\text { http://teamnutrition.usda.gov/resources/mpk worksheet.pdf }}$
Other Classroom Resources
http://www.fns.usda.gov/tn/
$6^{\text {th }}$ thru $8^{\text {th }}$ Grade
Inside the Pyramid
http://www.mypyramid.gov/pyramid/index.html
MyPyramid Plan
http://www.mypyramid.gov/mypyramid/index.aspx

## Family Resources

MyPyramid Tips for Families http://teamnutrition.usda.gov/resources/mpk tips.pdf

President's Council on Physical Activity \& Sports http://www.fitness.gov/

## Other Resources for ALL ages

Walk Across Texas http://walkacrosstexas.tamu.edu/

National Dairy Council http://www.nationaldairycouncil.org/

Texas Beef Council http://www.txbeef.org/

USDA's Team Nutrition http://www.fns.usda.gov/tn/

Washington State University Extension Junior Chef Club Level I - $4^{\text {th }}$ Grade http://www.k12.wa.us/ChildNutrition/JrChefI/default.aspx

Junior Chef Club Level II - $5^{\text {th }}$ Grade http://www.k12.wa.us/ChildNutrition/JrChefII/default.aspx

Texas Department of State Health Services - Lesson Plans for Teachers (look under Nutrition)
http://www.dshs.state.tx.us/kids/lessonplans/default.shtm

## Basic Food Preparation Resources

## Kindergarten thru $3^{\text {rd }}$ Grade

Extension en Espanol
"Healthy Food Can Be Fun"
http://extensionenespanol.net/pubinfo.cfm?pubid=203

## $3^{\text {rd }}$ thru $5^{\text {th }}$ Grade

University of Nebraska - Lincoln
Quick Resources for many topics
http://lancaster.unl.edu/food/resources.shtml

## $6^{\text {th }}$ thru $8^{\text {th }}$ Grade

University of Nebraska - Lincoln
Recipe Central
http://lancaster.unl.edu/food/recipe.shtml
Other Resources for ALL Ages
University of New Hampshire
"Quick and Easy Meals for Less!"
http://extension.unh.edu/FoodNutr/Docs/QEM04.pdf
COOK It Quick!: "Basic Foods for Cupboard, Fridge or Freezer: Create Your Own List" from University of Nebraska - Lincoln

UNL Extension in Lancaster County
http://lancaster.unl.edu/food/ciq-basics.shtml
"Quick and Easy Meals Using the Freezer"
Connecticut/Rhode Island Family Nutrition Program
http://www.thriftyfun.com/downloads/quick eazy freezer.pdf
Recipes from Oregon State University. Multnomah County Extension Office - a series that features tips for buying, storing and preparing certain vegetables
http://extension.oregonstate.edu/fcd/nutrition/publications/index.php
USDA's Food and Nutrition Service (FNS) Recipes
http://www.fns.usda.gov/FDD/recipes/
Nutrition.gov
"Shopping, Cooking and Meal Planning"
http://www.nutrition.gov/ (click on title in left-hand column)

# Healthy Snacking Resources Including Breakfast Foods \& Fitness Foods 

Kindergarten thru $3^{\text {rd }}$ Grade
Start Smart Eating and ReadingAvailable through the Oregon State University Extension Service Catalog under 4-H \&Youthhttp://extension.oregonstate.edu/catalog/4h/ (look under 4-H Adventures Program)
OrganWise Guyshttp://www.organwiseguys.com/
$3^{\text {rd }}$ thru $5^{\text {th }}$ Grade
Foods for Fitness and Fun - Iowa State University Extensionhttp://www.extension.iastate.edu/food/
Food \& Fitness from KidsHealthhttp://www.kidshealth.org/kid/stay healthy/
Eat Smart. Play Hard ${ }^{\text {TM }}$http://www.fns.usda.gov/eatsmartplayhard/
$6^{\text {th }}$ thru $8^{\text {th }}$ Grade
Food \& Fitness from TeensHealth
http://www.kidshealth.org/teen/food fitness/

## Table Etiquette Resources

## Kindergarten thru $3^{\text {rd }}$ Grade

Manners and Etiquette training kits for children http://www.mannersmatterusa.com/

Helping Children with Manners
Child Development Institute
http://www.childdevelopmentinfo.com/parenting/manners.shtml

## $3^{\text {rd }}$ thru $5^{\text {th }}$ Grade

Manners and Etiquette training kits for children http://www.mannersmatterusa.com/
$6^{\text {th }}$ thru $8^{\text {th }}$ Grade
Manners and Etiquette training kits for children http://www.mannersmatterusa.com/

Table Manners that Matter
Utah State University Extension http://extension.usu.edu/files/publications/publication/FN 505.pdf

## Teens

Basic Table Manners
Career Center, Ball State University http://www.bsu.edu/students/careers/students/interviewing/dinetips/

## Other Resources for ALL ages

American Table Manners
Diner's Digest
http://www.cuisinenet.com/glossary/tableman.html

## Food Safety Resources

## Kindergarten thru $3^{\text {rd }}$ Grade

Hand Washing

Henry the Hand ${ }^{\text {TM }}$
http://www.henrythehand.com/
$3^{\text {rd }}$ thru $5^{\text {th }}$ Grade
Hand Washing
The Scrub Club ${ }^{\text {TM }}$
http://www.scrubclub.org/
$6^{\text {th }}$ thru $8^{\text {th }}$ Grade
Hand Washing
Glo Germ ${ }^{\mathrm{TM}}$ Activity \& Resources
http://www.glogerm.com/

## Teens

Food Safety \& You - Eat Better to Live Better Lesson Series for Better Living for Texas See your county Extension agent to access the materials on this password-protected site. http://blt.tamu.edu/

Cold Pizza for Breakfast - MyPyramid Food Safety Tips for Teens \& Tweens Who Cook University of Nebraska Lincoln-Extension in Lancaster County http://lancaster.unl.edu/food/pizza.shtml

## Other Resources for ALL ages

Fight Bac ${ }^{\text {TM }}$
http://www.fightbac.org/
Clean Hands Coalition
http://www.cleanhandscoalition.org/
Eating Better Makes Sense - Purdue University Extension http://www.ces.purdue.edu/cfs/topics/FNP/mypyramidvideo.htm
U.S. Food \& Drug Administration - Center for Food Safety and Applied Nutrition http://www.cfsan.fda.gov/~dms/educate.html

Food Safety for Kids, Teens, and Educators http://www.foodsafety.gov/~fsg/fsgkids.html

## 4-H Food Show Resources

## 4-H Age - $3^{\text {rd }}$ Grade to 18 years:

For resources for use at the county or district level, contact your district office for anything that might be of use prior to the district food show.

State Food Show Guidelines - updated annually in September http://fcs.tamu.edu/food and nutrition/4-h youth.php

Nutrient Needs at a Glance
See your county Extension agent to access the materials on this password-protected site. http://agrilifebookstore.org/

State Food \& Nutrition Quiz Bowl Study Guide
http://fcs.tamu.edu/food and nutrition/4-h youth.php
Food \& Nutrition Challenge - an activity to facilitate the Food \& Nutrition project

- In addition to the Appendix A PowerPoint presentation, a small version of the PowerPoint slides with space for notes is provided.
- Appendix B: Guidelines for Conducting a 4-H Food \& Nutrition Challenge from the District 11 Food Show


## Food \& Nutrition Curricula

## Nutrition for (Your School Mascot)

A nutrition education program for $3^{\text {rd }}, 4^{\text {th }}$, and $5^{\text {th }}$ grade students focusing on the basics of MyPyramid for Kids

- Lessons 1-6 prepared by Amy Baugh, CEA-FCS, Crosby \& Lynn Counties; Lesson 7 prepared by Alice Kirk, Extension Program Specialist - Child Health \& Wellness, Texas AgriLife Extension Service, College Station, Texas
- Lesson 7 has a PowerPoint presentation, "Get Moving: One Step at a Time," with speaker notes. It is located on the FCS agent-only website, under Child Health.


## Other Curriculum Links:

Junior Master Gardener - each county office received a complimentary copy http://www.jmgkids.us/

Live Well! Enjoy Nutrient-Rich Foods http://www.beefnutrition.org/ (under Educational Materials for Patients and Clients)

Washington State University Extension Junior Chef Club Level I - $4^{\text {th }}$ Grade http://www.k12.wa.us/ChildNutrition/JrChefI/default.aspx

Junior Chef Club Level II - $5^{\text {th }}$ Grade
http://www.k12.wa.us/ChildNutrition/JrChefII/default.aspx

## Appendix A: Presentation for Youth Participating in a $4-\mathrm{H}$ Food \& Nutrition Challenge

Slide 1

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Developed by Jodi McManus, Extension Program Specialist - 4-H
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Slide 2

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Slide 5

## Objectives

(to be completed \& presented to a panel of judges)

- Preparation

Develop a recipe on the card you have been given (preparation steps,

- Food Safety

BAC (clean, separate, cook, chill)
Discuss food safety concerns of your dish

- Nutrition

Name 5 key nutrients in your dish \& their functions

- Identify your dish on My Pyramid

Cost Analysis
Calculate the price per dish \& individual serving

- Presentation

Appearance/appeal

- Communication
$\qquad$
$\qquad$

Slide 6
Conclusion

| - Resources are available at each station. |
| :--- |
| - Please clean your station after you cook. |
| - County packets will be sent home with each of |
| you. |
| - Would this program work (with modification) |
| in place of a food show? Can you use this |
| program in your county? |
| - Questions? |

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# Appendix B Guidelines for Conducting a 4-H Food \& Nutrition Challenge 

## The 4-H Food Challenge

This year at the District Food Show, you will have a unique opportunity to participate in a fun and innovative food and nutrition competition. After you have gone before the food show judges, you will have the option to participate in the "4-H Food Challenge" along with other members from District $\qquad$ .

Here are some general guidelines of the Challenge:

- You will be put onto a team with four other members from your county or other counties.
- Your five-man team will be directed to a cooking/preparation station where you will find a set of ingredients (but no recipe).
- You will be provided some general guidelines and instructions that will assist your team in meeting the objectives of the food and nutrition project:

1. Preparation: You will have the ingredients, so create a dish using them. Let's see how close you can get to the actual recipe. You will find a blank recipe card on your table. Write down the recipe you invent. Please be exact on ingredients used, preparation steps, cooking time, temperature, etc. The amount of ingredients and a clue is at each station to help you.
2. Food Safety: At each station you will see a FIGHT BAC! display. Follow the steps listed: clean, separate, cook, chill. An adult volunteer will keep a close eye on each group because we do not want to compromise our judges' health. Be prepared to discuss the food safety concerns of your dish with the judges.
3. Nutrition: We will provide you with nutrition resources/references. You must: name five key nutrients in your dish and their functions; identify where your dish belongs on MyPyramid. Please take the nutritional information provided at your station into consideration.
4. Cost Analysis: You will be provided some receipts. You must find your ingredients on the list. Calculate the price of the dish, along with the price per serving.
5. Presentation: Appearance/appeal of the dish is very important. In addition, you must be able to communicate with the judges effectively, completing the challenge entirely and efficiently.

- When time is called, your team will present your dish and the above information to a panel of judges.
- Teams will be scored on presentation and meeting the objectives as stated above. Prizes will be awarded!
- Participants and volunteers will be asked to complete an evaluation of the activity.

This new and fun concept is being tested to determine if 4-H members and volunteers would be favorable to making this the standard competition for the 4-H Food Show (no guarantees!).

If you are interested in this fun competition, be sure to designate your willingness to participate when you register for the District Food Show on 4-H Connect.

If you are a leader or parent who is willing to assist with this activity, please notify $\qquad$ at $\qquad$ .

Thanks to Sarah Womble, Victoria County CEA-FCS and her co-workers for developing the concept of the 4-H Food Challenge.

## Appendix C

Nutrition for
(Insert the school mascot's name here.
Example: Hawks, Bulldogs, Patriots)

# A Nutrition Education Program for $3^{\text {rd }}, 4^{\text {th }}$, and $5^{\text {th }}$ Grade Students Focusing on the Basics of MyPyramid for Kids 



Lessons 1-6 prepared by Amy Baugh
County Extension Agent - Family and Consumer Sciences
Crosby and Lynn Counties
Texas AgriLife Extension Service
Texas A \& M System

Lesson 7 prepared by Alice Kirk
Extension Program Specialist - Child Health \& Wellness
Texas AgriLife Extension Service
Texas A\&M System

# Nutrition for <br> (Place the school mascot's name here. Ex. Hawks, Bulldogs, Patriots, etc.) 

## Lesson Titles

Lesson 1: MyPyramid, Your Pyramid!
Lesson 2: Good for You Grains!
Lesson 3: FVI: Fruit and Vegetable Investigation
Lesson 4: Cows and Calcium
Lesson 5: Mighty Meats and Beans
Lesson 6: Good Oils and Bad Fats
Lesson 7: Be Active, Be Healthy

## Introduction to the Curriculum

The focus of this curriculum is for students to gain a better understanding of MyPyramid and its concepts. This is a basic, first-year curriculum to help them identify the food groups in MyPyramid, become aware of the amounts of foods needed daily from each food group, understand the MyPyramid messages (such as make half of your grains whole), and gain a better understanding of fat.
The goal of "Nutrition for $\qquad$ " is that participants will acquire knowledge related to MyPyramid, make healthy food choices, and understand the importance of physical activity to promote a healthy lifestyle to reduce the risk of obesity and, therefore, reduce the risk of weightrelated diseases. While knowledge is the intermediate client change, the ultimate outcome of the nutrition program is behavior change by adoption of healthy eating habits and increased physical activity.

## Objectives

- Improve diet quality by following MyPyramid for serving size and number.
- Include more whole grains in the diet.
- Increase fruit and vegetable intake to the amounts recommended by MyPyramid.
- Eat and drink more calcium-rich foods.
- Choose low-fat meats and meat alternatives.
- Limit bad fats and sweets, such as junk food and sodas.
- Increase physical activity, and decrease sedentary activities.


## Specifics about the Curriculum

This curriculum is ideal in a school environment, such as visiting the school monthly to present the lessons during class time, one grade level at a time. Due to holidays and testing, presenting seven lessons during the school year is practical.

Target Audience: $3^{\text {rd }}, 4^{\text {th }}$, and $5^{\text {th }}$ grade students. Lesson content and activities can be adapted to use with younger or older audiences.

Class size: A class size of 25-50 works best. Activities can be adapted to use with smaller groups. Groups larger than 50 are not recommended due to the age of the audience.

Time needed for each lesson: About 50 minutes is needed; some activities can be omitted or adapted to shorten or lengthen the lessons.
Materials needed: Materials needed are listed with each lesson.
Evaluation: Included at the end of this curriculum is a pre- and post-survey instrument. The questions are behavior-related to show current eating and exercise habits and eating and exercise habits after the curriculum is presented in its entirety. Small changes are to be celebrated.

Lesson Location: Lessons work well in a large classroom where students can be seated at chairs or desks, and it can also work in groups when necessary. For some games and activities, a large empty space, such as a gym, will be needed.

Food Samples: Along with each lesson, students may enjoy sampling foods from the food groups, such as 100 percent whole wheat crackers, vegetables, fruits, and nuts (depending on your budget, of course). A treat is included with the milk group lesson. Please check with the school nurse beforehand regarding possible allergies.

Handouts: If possible, after each lesson send home with each student a copy of the appropriate handout from the Live Well Tool Kit. The Live Well Tool Kit was provided to each county Extension office by the Naturally Nutrient Rich Coalition, Cattlemen's Beef Board, and National Cattlemen's Beef Association. The school may also include the handouts in a newsletter or other letter to parents.

Most of all, have fun!

## Lesson 1: MyPyramid, Your Pyramid!

This lesson provides a very brief and simple overview of MyPyramid. Additional lessons will address the components of MyPyramid in more detail.

## Materials needed:

- Pre-survey for each student
- Pencil for each student
- MyPyramid for Kids poster
- MyPyramid for Kids mini-poster (one for each student; order from USDA or print from MyPyramid.gov website or from the Texas AgriLife Extension Service Bookstore)
- Paper food models
- Colored paper signs corresponding to each food group, with the name of each food group printed on it
- Measuring cups (to demonstrate what 1 cup, $1 / 2$ cup, etc. looks like)
- Deck of cards

Lesson Plan

| SAY | DO |
| :---: | :---: |

Hello! My name is $\qquad$ and you can call me $\qquad$ . I am with Texas AgriLife Extension Service. Extension is in every county in Texas, and we provide a variety of resources and educational programs to Texans. Can you tell me how many counties are in Texas? There are 254 counties in Texas, and each county is served by one or more Extension agent like me. My office is located at
$\qquad$ , so come see me sometime!

I will be visiting you several times this year to talk to you about eating and staying healthy. We will call it "Nutrition for $\qquad$ ." Who likes to eat? We all like to eat, and we have many choices when it comes to selecting the foods we eat. But first I would like for you to complete this 10 -question survey so I can get to know you better.

Distribute the pre-survey to students. You may want to read each question aloud and give them time to answer the question. Discourage students from visiting and sharing answers during the survey.

| SAY | DO |
| :---: | :---: |

Thanks for completing the survey for me. Our first lesson is called MyPyramid, Your Pyramid. Who has ever seen MyPyramid?

Well, if you haven't, it's okay because it's fairly new. Do you remember what the old Food Guide Pyramid looked like? MyPyramid is the new food pyramid. It is called MyPyramid, much like Ipod or My Space, because it is for you! Actually, there is a pyramid for everyone. This is MyPyramid for Kids, and it shows your daily food needs. This is a daily eating plan that you can follow to make sure you get the foods and nutrients you need each day.

I am going to give everyone a food model to use at some point during the class. Remember that other students use these food models, too, so please be gentle with them. Just hang on to your food for right now, and we will get to use them shortly.

So, let's look at the different colors on MyPyramid and see what they mean. Can anyone tell me what the orange band represents? That's right, it is the grain group. What foods are in the grain group?

Look at the food item that I gave you. If you have a food from the grain group, please come to the front and sit in a group.

Show students the poster of MyPyramid for Kids (preferably the poster that includes calorie needs and amounts from each food group).

Distribute a food model (paper or other type) to all students. Be sure to include a variety of foods from each food group and the oils category.

Wait for answers.
Have the students come to the front, and give one student the paper sign with the appropriate food group on it. Have them sit as a group. There may be students who incorrectly come to the front. Ask them quietly and politely if that is a food in the group. Then tell them, "I bet that is in the $\qquad$ group; come up when the $\qquad$ group is called."

Variation of this activity: If you have enough space (large empty room/ gym), place colored sheets of paper on the floor corresponding to the food groups in MyPyramid with the food group name printed in large print. After the food models are distributed to the students, tell them

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that on the count of 3 , they will run to the food group of the food item they have and sit in a straight line.

When the grain group, for example, is being discussed, have each student name off what foods are in the grain food group by telling what food model they are holding.

Can anyone tell me what the green band represents? That's correct; it is the vegetable group. What foods are in the vegetable group? Look at the food product I gave you. If you have a food from the vegetable group, please come to the front and sit in a group.

Can anyone tell me what the red band represents? That's correct; it is the fruit group. What foods are in the fruit group? Look at the food product I gave you. If you have a food from the fruit group, please come to the front and sit in a group.

Can anyone tell me what the blue band represents? That's correct; it is the milk group. What foods are in the milk group? Look at the food product I gave you. If you have a food from the milk group, please come to the front and sit in a group.

Can anyone tell me what the purple band represents? That's correct; it is the meat and beans group. What foods are in the meat and beans group? Look at the food product I gave you. If you have a food from the meat and beans group, please come to the front and sit in a group.

Yes, I know I skipped the yellow band! Can anyone tell me what the yellow band represents? That's correct; it's oil. But oil is not actually a food group like the fruit group or the milk group. However, it is mentioned on MyPyramid because we need oils everyday. What are oils? That's right; oils are olive oil, cottonseed oil, corn oil, canola oil, peanut oil, soybean oil, and vegetable oil. It also includes oils from nuts and seeds and some fish. Oils do not include solid fats, such as butter, shortening, or some margarines. Look at the food model I gave you. The rest of you should have an oil product because we have called the other

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food groups to the front. You all please come to the front and sit in a group, too.

Okay, let's decide what we want to eat today. It's time to eat breakfast! What would you like to have for breakfast? Do you have a food that you would want to eat for breakfast?

Okay, now it is time for lunch! What would you like to have for lunch? Do any of you have foods that you would want for lunch?

Okay, now it is time for a snack! What would you like to have for a snack? Do any of you have foods that you would want for a mid-afternoon snack?

Okay, now it is time for a supper! What would you like to have for a supper? Do any of you have foods that you would want for supper?

Let the students call out what they want for breakfast and locate the students who have those items. Call those students to the front. It is okay if the meal is larger or smaller than what would normally be eaten at one sitting - that is the purpose of this activity! However, if the amount of food selected is completely unrealistic or absurd, help them adjust their choices. Let them choose the foods, even if they choose something that you would not eat for breakfast.

Remember, it okay if it is more or less than what they should eat, because after deciding what to eat for each meal, the amount of food will be compared to the amount of food to eat daily suggested by MyPyramid for Kids. Explain that not all students may be able to participate; there may be more students/foods than we can eat in one day!

Have the "breakfast" group stand in the front facing the other students and showing their foods.

Follow the same directions as above.

Follow the same directions as above.

Follow the same directions as above.

Well, we have breakfast, lunch, a snack, and supper. It looks like it's a day's worth of food. Let's see how we measure up to what MyPyramid suggests that you eat each day.

On the poster, each food group has a suggested amount that you should eat each day. What is the suggested amount from the grain group? That's right; it is 6 ounces. But what is 6 ounces? Do we think of bread and cereal in ounces? Not usually. An ounce from the grain group is equal to one slice of bread, $1 / 2$ cup of rice or noodles, $1 / 2$ cup of oatmeal, a six-inch tortilla, or 1 cup of cereal. Each of your food models of the foods in the grain group is a picture of what an ounce is.

So, let's look at our meals for one day and see if we have 6 ounces of grains (at this point, the amount of whole grain products is not important).

Do we have more/less than 6 ounces? What could we take away? Or what could we add to make it 6 ounces?

Thanks, grain group! You can have a seat with the other grains. What about our vegetables? How many cups of vegetables should you eat each day? That's right; $21 / 2$ cups each day. Let's have all of our vegetables that we chose to include in our day's meals come to the front. Each of you has a picture of about $1 / 2$ cup of vegetables. With that in mind, how many people with vegetables do we need to have $21 / 2$ cups? That's right; five. Do we have more/less than $21 / 2$ cups of vegetables? What could we take away/add?

Thanks vegetable group! You can have a seat with the other vegetables. What about the fruit group? How much do we need from the fruit group? That's right; $11 / 2$ cups. Let's have all of our fruits that are our meals

Have all the students who are in the breakfast, lunch, snack, and supper groups come forward. Count the grain foods.

If they have more than 6 ounces, have the appropriate number of students to sit down. If they have less than 6 ounces, ask the students what other grain foods they could include and ask those students to come to the front.

Have the appropriate number of students with vegetable food models sit down, or ask more to come to the front. Ask the students what they want to exclude or include.

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come to the front. Each of you has a picture of about $1 / 2$ cup of fruit. Keep in mind that large apples or large bananas may count as 1 cup of fruit. Do we have more/less than $11 / 2$ cups of fruit? What could we take away/add?
-

Did we include any oils in our meals? If you are an oil, come forward. You need some oil each day, but let's not overdo it; 5 teaspoons is all you need. Most of us get the oil we need from the foods we eat, but you could include a little bit of salad dressing to vegetables, such as a salad.

I have really enjoyed telling you about MyPyramid today. Do you think you can eat this way? Do you think you can eat a variety of foods from each of the food groups? Is that something you can work toward? Will you share what you have learned today with your families? Great. The next time I visit, we'll talk more about the grain group. Thanks for having me here today.

Go through the same process with the milk group and meat group.

Milk - 3 cups
Meat and Beans - 5 ounces; 3 ounces is about the size of a deck of cards; $1 / 4$ cup cooked beans, 1 egg, $1 / 2$ ounce of nuts or seeds, or 1 tablespoon peanut butter counts as one ounce of meat/beans.

Show them what 5 teaspoons looks like using the food models.

## Additional Activities/Games That Can Be Done Any Time:

Distribute food models to the youth. Ask students to line up according to calories or fat grams or specific nutrients. Have the students reflect on the foods that contain small and large quantities of these nutrients. Have them reflect on what effect the nutrients have on the body and/or why we need or don't need the nutrient identified.

Have the students form two teams and form two lines as in a relay race. Leave a pile of food models at the front of each line. Place two sets (one set for each group) of food group labels at a designated distance from the lines. Each student must pick up a food model, run to the labels, and drop the food model in the correct food group pile. The teams will race each other, but accuracy of identifying food groups is the real key!

Make up your own games and activities using food models, nutrients, food groups, etc!

## Lesson 2: Good for You Grains!

## Materials needed:

- MyPyramid for Kids poster
- Paper food models
- Measuring cups
- Whole grain puzzles (one for each student or one per group of three students)
- Poster or large picture of whole grain, or a computer image of grain (will need projector)
- Grains in plastic sandwich bags such as (just a few of these will do) (small amounts of these grains may be donated by a store that carries bulk grains) :
- Amaranth
- Barley
- Brown rice
- Buckwheat
- Popcorn
- Millet
- Oats, including oatmeal
- Quinoa
- Rice, both brown rice and colored rice
- Rye
- Sorghum (also called milo)
- Wheat
- Wild rice
- Plastic bags or jars of:
- Wheat germ
- Wheat bran
- $100 \%$ whole wheat flour (and the original sack)
- White flour (and the original sack)
- Variety of $100 \%$ whole grain products
- Variety of products that state "made with whole grain"
- Variety of products that look like they are made with whole grain but are not made with whole grain

Lesson Plan

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Hello! Do you remember my name? Do you remember where I work? Great! What did we talk about the last time I was here? That's right; MyPyramid for Kids! Let's look at the pyramid again and see what you remember.

Ask the kids to name each food group and how much from that food group should be eaten daily.

That's great. Let's take a closer look at the Grain Group. Today's lesson is called Good for You Grains because foods from the grain group are good for you. Tell me what foods are in the grain group.

That's great. And how many ounces of grains should you eat each day? That's right; 6 ounces. What is an ounce? That's right; 1 slice of bread, 1 cup cereal, $1 / 2$ cup oatmeal, rice, or noodles (pasta). Great job!

Now I have an activity for you. You are going to put a puzzle together. Please keep the bags sealed until I tell you to open them.

I gave each of you a puzzle. You may now open the bag and put the puzzle together.

Can anyone tell me what you put together?
It is a whole grain. Not H O L E, as in a hole in the ground; but a W H O L E grain. What does whole mean? That's right. It means it has all its parts; it is complete; it is the entire grain.

MyPyramid says you should make half of your grains whole. What does that mean? That's right. At least three ounces of your grain foods should be made from whole grains. Whole grain products are made from the entire grain kernel, meaning nothing is removed.

So let's talk about whole grains. Where do grains come from? That's right; they come from plants, such as wheat, oats, rice, and rye.

There are three parts to your puzzle. What are the names of the parts? That's correct; the bran, the germ, and the endosperm. Which is the bran? Which is the germ? Which is the endosperm? That's great! The entire grain is called a kernel or a berry. Let's talk about each part.

Allow the children to name grain products. Write them on a board or poster if you can.

Distribute a whole-grain puzzle to each student. The puzzle pieces can be kept in sealed plastic sandwich bags, and one bag can be given to a student. Remind students to keep the puzzle pieces together for other students to use later. If you don't have enough puzzles, divide the students into groups, and have them assemble a puzzle together.

Give the students about 2-3 minutes to put the puzzle together.

Wait for answers.

Show poster of whole grain with parts labeled.

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The bran is the multi-layered outer skin of the kernel. It contains important nutrients and fiber.

The germ is the part that will sprout or grow into a plant if put in soil and watered regularly. It contains many nutrients and good fats.

The endosperm is the germ's food supply. This part feeds the germ while it is growing. The endosperm is by far the largest portion of the kernel. It contains starchy carbohydrates, proteins, and small amounts of vitamins and minerals. It contains a very, very, very small amount of fiber.

Whole grains contain all three parts of the kernel. Whole grains are healthier, providing more protein, more fiber, and many important vitamins and minerals than you need to be healthy.

Have you ever seen an actual grain? Most of the time, we see the grain after it has been processed into flour, or the flour has been processed into cereal, bread, crackers or noodles.

I brought some actual grains for you to see today.

These are wheat grains, or kernels, or berries. This is the whole grain. Why is it the whole grain? That's right; it has the bran layer, the germ, and the endosperm.

I have a few examples of the parts of the whole grain. This is wheat germ, and this is wheat bran. Some people add these products to their cereal or when they are baking bread or muffins or pancakes. Are these whole grains? No; they are just one part of the grain. Remember, a whole grain must have all three parts: bran, germ, and endosperm.

Well, we don't usually eat just a bowlful of grains. Our grains are usually ground into flour to make the grain products that we eat. Some people even buy the actual

Begin passing around each kind of grain for the students to see.

Pass around other kinds of grains (for example: rye, barley, oatmeal, millet, brown rice, and popcorn). Announce what each grain is, and reiterate that it is a whole grain because it has the bran, germ, and endosperm.

Pass around a bag or jar of wheat germ and wheat bran.

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whole grain and grind it into flour themselves. I have some examples of flour.

This is $100 \%$ whole wheat flour. Why is this WHOLE wheat flour? That's right. Because even though it is ground into flour, all three parts have been ground into flour. In other words, nothing was removed before the grain was ground into flour. You can see that it is slightly brown in color and has golden-brown specks in it.

This is regular white flour. You probably have some of it in your house. Most white flour is made of the endosperm part of the grain only. So is this whole grain flour? That's right; it is not a whole grain because it does not have all three parts.

So when you are eating bread, cereal, crackers, noodles, cookies, and other grain foods, how do you know if you are eating whole grains or not? I brought some examples of grain products for you to see. Let's see which ones are whole grain and which products are not whole grain.

Pass around a plastic bag of whole wheat flour. Also show a bag of whole wheat flour and show the writing on the bag that states that it is $100 \%$ whole wheat flour.

Pass around a plastic bag of white flour and also show a sack of white flour. Show the students that it does not say $100 \%$ whole wheat flour.

Display foods that have ' $100 \%$ whole grain' written on them; display products that have 'made with whole grain' written on them; and display products that have statements that might lead a consumer to think the product is made with whole grain (harvest grain, multigrain, stone ground wheat, etc.).

Read labels to ensure that the product does or does not contain whole grain. Cookies and other snacks may have a variety that is $100 \%$ whole grain. Reiterate that you are not suggesting they buy these particular brands; you are showing them how to identify products that are $100 \%$ whole grain and products that are not $100 \%$ whole grain. Show each product to the students and ask if it is $100 \%$ whole grain. Ask why it is or is not $100 \%$ whole grain.
Remind students that it is important

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to choose a product that is made from whole grain or is $100 \%$ whole grain when they can.

Optional: The students may enjoy a sample of a $100 \%$ whole grain cookie, snack cracker, or popcorn.

## Lesson 3: FVI - Fruit and Vegetable Investigation

## Materials needed:

- MyPyramid for Kids poster
- Paper food models
- Measuring cups
- Small pieces of paper with names of fruits and vegetables on them (one per student). Stickon labels work well.
- Tape, if not using stick-on labels
- FVI: Fruit and Vegetable Investigation worksheet (one per student) (located at the end of the lesson plan)
- Pencils
- Examples of real fruits and vegetables that are unusual

Lesson Plan

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Hello! Do you remember my name? Do you remember where I work? Great! What did we talk about the last time I was here? That's right; the grain group and the parts of the whole grain. Can anyone tell me the three parts of the whole grain? Can you make half of your grains whole? That's right; at least three of your choices of grain products should be made from whole grain, preferably $100 \%$ whole grain. Let's take a look at MyPyramid again to see what you remember.

Ask the students to name each food group and how much from that food group should be eaten daily.

That's great. Let's take a closer look at the vegetable and fruit groups. Today's lesson is FVI: Fruit and Vegetable Investigation. The vegetable group is the green band. How many cups of vegetables should you eat each day? That's right; $21 / 2$ cups. Tell me some examples of foods from the vegetable group.

That's great. Remember, you should eat $21 / 2$ cups of vegetables each day.

The fruit group is represented by the red band on MyPyramid. How many cups of fruit should you eat each day? That's right; $11 / 2$ cups.

Can you name some foods in the fruit group? That's great.

Let's play a game. You are going to get the name of a fruit or vegetable on your back. You should not know what the fruit or vegetable is that is on your back, but

Allow students to name vegetables. Write them down if you can.

Show them what $2 \frac{1}{2}$ cups of vegetables looks like with food models and/or measuring cups.

Show them what $11 / 2$ cups of fruit looks like.

Allow students to name fruits. Write down the examples if you can.

Tape a name of a fruit or vegetable on each student's back. Make sure the student does not see what fruit or

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you are going to try to find out by asking others 'yes' and 'no' questions. What are 'yes' and 'no' questions? That's right; they are questions that can be answered only 'yes' or 'no.' Examples would be "Am I red?," "Do you eat the skin?," "Am I round?," "Do I have seeds?" When you think you might know what is written on your back, you may ask "Am I a $\qquad$ (peach, tomato, green bean, etc.)? Once you have guessed what is on your back, you may take off your label, bring it to me, and sit down.

How long did it take you to guess which fruit or vegetable was on your back? Did you discover that there are a lot of fruits and vegetables from which to choose? Let's do another activity. Please get in groups of $\qquad$ (two, three, four).

I am going to give each group a vegetable or fruit and a worksheet.

The worksheet has questions that I would like for you to answer about your fruit/vegetable. Let's go over the questions.
vegetable is on his or her back. Then have the students walk around and ask the other students 'yes/no' questions to try to discover what fruit or vegetable is on his/her back. You may need to demonstrate this game by having someone put a fruit or vegetable on your back and ask a student(s) yes/no questions to try to guess what is on your back. The game is over when all students are seated.

Depending on how many students are in the class, group the students into enough groups to have $10-12$ groups.

Give each group a fruit or vegetable food model and the FVI worksheet.

Read each question on the worksheet. You may want to use a fruit or vegetable to complete the worksheet aloud with them so they have a better idea of how to answer the questions. Remind them that they can look on the back of the paper food model to find the nutrients. Give the students 5 minutes or so to complete the worksheet. Walk around to see that all groups have completed the worksheet.

Have one student from each group stand up and report what they wrote on their worksheet. After each group presents, ask the students if there are other characteristics of that fruit or vegetable and additional ways to eat that fruit or vegetable. Keep track of time during this activity and adjust as necessary.

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Do you think you can include more fruits and vegetables in your meals at school and at home? Did you discover new ways to eat fruits and vegetables? Good.

Remember that you need $21 / 2$ cups of vegetables and $11 / 2$ cups of fruit every day. Try to suggest some of these foods at home, and you can even help prepare them the way you like.

Thanks for having me today. I enjoyed hearing you tell me about vegetables and fruits. Next time I visit, we will talk about the milk group.

If time permits, show the students unusual fruits and vegetables (artichokes, eggplant, kohlrabi, leeks, starfruit, kumquats, lychee, passion fruit, and many more). Pass them around so they can touch them.

Students may enjoy sampling jicama with ranch dressing or other vegetables and fruits.

## FVI: Fruit and Vegetable Investigation Worksheet

What am I?

I am in which food group?

List three of my characteristics:
1.
2.
3.

List 5 ways I can be eaten:
1.
2.
3.
4.
5.

List the important nutrients I contain:

## Lesson 4: Cows and Calcium

## Materials needed:

- MyPyramid for Kids poster
- Paper food models
- Measuring cups
- Examples of all 4 kinds of milk: whole, $2 \%, 1 \%$, and fat-free (can be empty cartons or jugs)
- Materials for "Calcium through the Years" demonstration
- Pudding in a Jar recipe/directions (recipe located at the end of the lesson plan)
- Materials for Pudding in a Jar activity
- Spoons
- Garbage bags or boxes for dirty jars

Lesson Plan

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Hello! Do you remember my name? Do you remember where I work? Great! What did we talk about the last time I was here? That's right; vegetables and fruits. Let's look at MyPyramid again and see what you remember.

That's great. Let's take a closer look at the Milk Group. Today's lesson is Cows and Calcium. Where does milk come from? That's right, cows. Are cows a plant or an animal? That's right, an animal.

Let's back up a minute and think about the grain, vegetable, and fruit groups. Where the do the foods in the grain, vegetable, and fruit groups come from? Plants or animals? That's right; they are from plant sources, which is why they are naturally low in fat. The milk and meat and beans groups have foods that come from animals and have higher amounts of fat in them.

Looking at MyPyramid, you can see that the blue band and the purple band are not as wide as the orange, green, and red bands, which are the grains, vegetables, and fruits. This means that we should eat less from the groups that are not as wide, but we should include foods from these groups daily because we need the nutrients that foods from these groups provide.

Why should you include foods from the milk group? That's right; they are rich in calcium. Why do you need calcium? That's right; it makes your bones strong. Tell me what foods are in the milk group.

Ask the students to name each food group and how much from that food group should be eaten daily.

Allow students to name foods in the milk group (milk, yogurt, cheese, pudding, ice cream; foods made from milk that have little to no

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calcium, such as cream cheese, cream, and butter, are not in the milk group). Write them on a board or poster if you can.

Show examples of 1 cup equivalents from the milk group.

Have a carton or plastic carton of each kind of milk: whole, $2 \%, 1 \%$, and fat-free. Show each one when asking students about each color.

What is the difference among the colors? The red lid is whole milk. Whole milk is about $4 \%$ milk fat. This milk has the highest amount of fat compared to the others. The blue lid is $2 \%$, reduced fat milk. It has $2 \%$ milk fat, half the fat compared to whole milk. The yellow lid is $1 \%$ low-fat milk. It has $1 \%$ milk fat, half the amount of fat that the $2 \%$ milk has. The pink lid is fat-free. What does that mean? That's right, it means that it doesn't have any fat in it.

Whole milk is appropriate for toddlers and children ages 2-4, but as you get older, it is best to choose the lower fat milk, such as $2 \%$ or $1 \%$ or even the fat-free. Deciding what milk you choose can depend on your activity level or if you need to limit the fat in your diet. If you are very, very active, the whole milk or $2 \%$ may be right for you. If you are not as active and need to lower the amount of fat you eat, then $1 \%$ or fat-free may be the best choice for you. Regardless of fat content, the calcium content in these milks is the same. Keep in mind that cheese is made from milk, and some cheeses may have more fat than others. Yogurt is also made from milk, and low-fat yogurt is available. Milk, yogurt, and cheese are all filled with calcium and other nutrients you need every day.

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Now, let's talk about calcium.
Calcium is a mineral in your body that makes up your bones and keeps them strong. There is more calcium in your body than any other mineral. Most of the calcium is stored in your bones and teeth. There is a little bit of calcium in your blood and body tissues, and it is there to help your muscles work and helps send the messages your nervous system delivers all over the body.

You must eat calcium-rich foods to put calcium into your body. If you do not eat calcium-rich foods, your body will take the calcium it needs from your bones. Over time, if your body takes all the calcium from your bones because you didn't give your body any calcium, what will happen? That's correct, your bones will get weaker and weaker. Let's think of your bones as a bank account. If you want your bank account to have a lot of money in it, what do you do? That's right; you deposit money into the bank account. If you need some of that money, what do you do? That's right; you take money out or withdraw money from the account. What if you withdraw more money than you put in the account? That's right; your account will be in the negative. Just like a bank account, if you don't give your body enough calcium from the food you eat, your body will take, or withdraw, calcium from your bones. If you don't add, or deposit, calcium in your bones for your body to use, the calcium in your bones will be all used up, and your account will be in trouble. Over the years, your bones can become weak and can break easily. This is what is called osteoporosis.
I have a treat for you today. How many of you like pudding? Today you are going to make pudding.
"Calcium through the Years" demonstration.

Have baby food jars filled with $1 / 3$ cup of milk. Have each student get a baby food jar with milk and put 2 tablespoons of pudding mix in the jar. Put the lid on the jar, and shake it for 3-5 minutes. Give each student a spoon to eat the pudding from the jars.

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I have enjoyed being here with you today. Remember, you need 3 cups from the milk group everyday, including milk, yogurt, and cheese. Also, choose lowfat milk products when you can. The next time I visit, we will talk about the meat and beans group.

## Instant Pudding Recipe

## 1 Serving

## Ingredients:

Small jar with tight-fitting lid (such as a baby food jar)
$1 / 2$ cup of $2 \%$ or $1 \%$ milk
2 tablespoons instant pudding mix

## Directions:

1. Measure instant pudding mix into jar.
2. Measure milk and pour into jar.
3. Tighten the lid.
4. Shake the jar in an up and down motion for 5 minutes or until thickened. (Count 1 to 10 ; rest, and repeat several times.)
5. Remove lid and eat with a spoon directly from the jar.

Recipe Source: University of Arkansas, Division of Agriculture, Cooperative Extension Service, Expanded Food and Nutrition Program.

## Lesson 5: Mighty Meats and Beans

## Materials needed:

- MyPyramid for Kids poster
- Paper food models
- Measuring cups
- Deck of cards
- CD of pictures of meat or pictures of meat saved to computer
- Projector
- Variety of beans (Most of these are the 16 bean mix sold at most grocery stores)
- Pinto
- Lima
- Soybean
- Fava
- Kidney
- Red
- Blue Northern
- Navy
- Lentil
- Split Pea
- Peanut
- Chickpea
- Black
- Bowls
- Bean crossword puzzle (one for each student)
- Pencils for each student

Lesson Plan

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Hello! Do you remember my name? Do you remember where I work? Great! What did we talk about the last time I was here? That's right; the milk group. Can anyone tell me what foods are in the milk group? That's right, and you need 3 cups from the milk group every day. Let's take a look at MyPyramid again to see what you remember.

That's great. Let's take a closer look at the meat and beans group. Today's lesson is Mighty Meat and Beans. The meat and beans group is the purple band on MyPyramid. How many ounces of meat and beans do you need to eat each day? That's right; 5 ounces. Tell me some examples of foods from the meat and beans group.

Ask the kids to name each food group and how much from that food group should be eaten daily.

Allow students to name foods in the meat and beans group. Write them on a board or poster if you can.

So what is one ounce of meat and beans? In general, 1 ounce of meat, poultry or fish, $1 / 4$ cup cooked dry beans, 1 egg, 1 tablespoon of peanut butter, or $1 / 2$ ounce of nuts or seeds can be considered as 1 ounce from the meat and beans group. It may be helpful to remember that 3 ounces of meat is similar in size to a deck of cards.

This food group, like the milk group, has foods that come from animal products. Which foods in this group are from animal products? Some foods in this group come from plant sources. Which foods in this group are from plant sources? So why are they in the same group?

That's right, because they all contain protein. The meat contains fat, and that's why the pyramid says 'go lean with protein.' In other words, a good alternative to meat is beans; they have little or no fat at all. Beans are also considered a vegetable.

When eating meat, such as chicken, pork chops, roast, or ground meat, make sure it is lean meat, meaning it has the least amount of fat possible. You can choose meats that are low-fat, or you can cut off the fat and not eat it. After cooking ground meat, you can drain the grease from the meat and get rid of a lot of fat. Let's take a look at meat.

How many of you have been to grocery store and seen the meat counter? You can see all the different cuts of raw meats, and it is packaged for you to take home and cook. Or maybe you have seen raw meat in your refrigerator or freezer at home. What does the meat look like? That's right; it is red or pink with white specks or stripes in it, and it may have a white ring around the outside. What is the white part? That's right, it is fat. What color is it after the meat the cooked? That's right; it is kind of clear and glossy.

I have pictures of raw meat for you to look at and tell me which one you think has the most fat on it. Are you ready?

Show them examples of what 5 ounces of meat and beans looks like; show a deck of cards.

Show slides of cuts of meat. Ask students which cut has the most fat and which cut has the least amount of fat. Ask them which would be the best choice to eat.

| SAY | DO |
| :---: | :---: |

Great; now you are meat experts, and you can go grocery shopping with your family to let them know which cut of meat has the least amount of fat and is the best choice. Remember, you can cut the fat off before or after cooking, so if you ever get a fatty piece of meat after it has been cooked, you can cut off the fat and not eat it.

Let's talk about beans now. Get in groups of three people per group.

Give each group a bowl of mixed beans that contains a variety of beans from the materials list. Try to find as many of these beans as possible. It is okay if you can't find them all. Give each student the bean crossword puzzle.

We are going to complete this crossword puzzle together, and we are going to identify each bean in the puzzle.

Thanks for having me here today to talk about meat and beans! I really enjoyed it. Remember, both meat and beans have protein. Why is protein so important? The body needs protein to make up and repair muscle and bone tissue. Protein can also fight infections and help heal wounds. Meat, such as beef, pork and chicken, have fat in them, but beans have little or no fat. So, choose beans more often, and select meats that have less fat. The next time I visit, we will talk about the yellow band, which is oils, and we will also talk more about fat.

## Lesson 6: Good Oils and Bad Fats

## Materials needed:

- MyPyramid for Kids poster
- Paper food models
- Measuring cups
- Examples of oils:
- Olive oil
- Canola oil
- Cottonseed oil
- Peanut oil
- Sunflower seed oil
- Vegetable oil
- Salad dressing
- Examples of solid fats:
- Butter
- Shortening
- A variety of food products with food labels (probably 50 or so; should be empty packages, boxes, bags, etc.)
- I'm Eating What?! worksheet (one per group of students) (located at end of the lesson plan)
- Pencils
- A large food label, or a food label image on a computer and projector

Lesson Plan

| SAY | DO |
| :---: | :---: |

Hello! Do you remember my name? Do you remember where I work? Great! What did we talk about the last time I was here? That's right; the meat and beans group. Can anyone tell me what foods are in the meat and beans group? That's right, and you need 5 ounces of meat and beans every day. Let's take a look at MyPyramid again to see what you remember.

That's great. Let's take a closer look at the yellow band on MyPyramid. Today's lesson is Good Oils and Bad Fats. The yellow band represents oils on MyPyramid, but it is not a food group. It is included on MyPyramid to remind us that we need oils every day. Tell me some examples of oils.

Ask the kids to name each food group and how much from that food group should be eaten daily.

Allow students to name oils. You may need to help them with this activity. Write them on a board or poster if you can. Have examples of oils for the students to see (canola oil, corn oil, cottonseed oil, olive oil, safflower oil, soybean oil, sunflower oil).

| SAY | DO |
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Oils are fats that are liquid at room temperature, like the vegetable oils used in cooking. Oils come from many different plants and from fish. Some foods are naturally high in oils, like nuts, olives, some fish, and avocados. Foods that are mainly oil include mayonnaise, certain salad dressings, and soft (tub or squeeze) margarine with no trans fats. All you need is about 5 teaspoons of oil each day. These are good oils because they contain good fats called polyunsaturated fats or monounsaturated fats.

Solid fats are fats that are solid at room temperature, like butter and shortening. Solid fats come from many animal foods. Some common solid fats are butter, fat from meat, stick margarine, and shortening. These fats are saturated fats. The last time I was here we looked at the fat on pieces of meat. The white part of meat is fat; it is solid and is saturated fat.

You should choose oils more often than solid fats because they contain less saturated fat than solid fats.

Trans fats are something new to people even though they have been around for a long time. You should really try to completely avoid foods that have any amount of trans fats.

How do you know what kind of fat is in your foods? How do you know if it has a lot of saturated fat or a lot of trans fat? Have you ever read a food label? Today you are going to read food labels to take a closer look at what you are eating. Please get in groups of 4 people per group.

Distribute 5-6 food products (with food labels on them) to each group. Try to find junk food items that have a lot of saturated fat and trans fat, as well as foods that children like that do not contain saturated fats and trans fat to show them that they can choose and enjoy healthy (or at least healthier) snacks.

Distribute one "I'm Eating What?!" worksheet to each group. Group the children so that there are about 6-8 groups.

What I need you to do is look at each product's label and find the serving size. Write down the name of the product in the first column and the serving size in the second column on the worksheet. Your serving size might be $1 / 2$ cup, or 5 crackers, or 1 ounce, or 2 slices.

Then I want you to look at the line that says total fat. There is a number right beside it with a little g . What does the little g mean? That's right; it means grams. For example, total fat may be 9 g , which means the product has 9 grams of fat in it. Write that number under the third column that says total fat.

Then look directly under total fat and find where it says saturated fat. Write the number of saturated fat in the fourth column. Your product may or may not have saturated fat in it. If it does not, write none in the square. If it has saturated fat in it, keep in mind that the number is included in the total fat number. The saturated fat is part of the total fat, not in addition to the total fat. The same goes for all the fats listed under total fat.

Then look for the words trans fat. Write the grams of trans fat in the next column. Your product may or may not have trans fat in it. If there are additional fats listed such as big words like polyunsaturated or monounsaturated; write that information in the last column. Do this for each of your food products. Work together as a group to complete the worksheet. I will give you about 8-10 minutes to complete the worksheet.

Now that you have completed your worksheet, I would like for one student in each group to stand up and tell the rest of the students which product has the most total fat, which product has the most saturated fat, which product has the least amount of total fat, and which one has the least amount of saturated fat.

Wow, did you discover some interesting things about the foods you are eating? With your findings in mind, do you know how many grams of fat you should eat each day? You should eat 60-75 grams of fat each day, with about 20-25 of those fat grams being saturated fat.

You may need to have a large food label and demonstrate how to identify the fats on the label and complete one example on the worksheet aloud. Walk around the groups to make yourself available to answer questions.

Let the students present their findings.

| SAY | DO |
| :---: | :---: |

When you discover that something you are eating has, for example, 10 grams of fat in it, and there are 5 grams of saturated fat, what does that tell you? That's right; the food may not be a good choice, and you may not want to eat a lot of it or you may not want to eat it very often.
While you should look at the total fat in a food product, be sure to take a closer look at the saturated fat. If the saturated fat is more than half of the total fat, you may want to choose something else that is lower in fat, or not eat very much of it.

Many products today have a reduced fat or a no fat variety, so you may be able to enjoy a lower fat version of your favorite snack. Keep in mind that snacking on vegetables or fruits without added fats and sugars is always a good choice.

I've really enjoyed being with you today. I hope you go home and take a look at the food labels in your pantry and that you look at food labels in the store before you buy a product. The next time I visit, we will talk about physical activity and staying healthy. Thanks for having me here today.

I'm Eating What?!

| Food | Serving <br> Size | Total Fat | Saturated <br> Fat | Trans Fat | Unsaturated <br> Fat |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Example: <br> Peanuts | $\mathbf{1}$ ounce | 14 g | $\mathbf{2 g}$ | $\mathbf{0 g}$ | $\mathbf{1 2 g}$ |
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## Lesson 7: Be Active, Be Healthy

## Materials needed:

- MyPyramid for Kids poster
- Paper food models
- Measuring cups
- Deck of cards
- "Get Moving One Step at a Time" PowerPoint presentation and speaker notes (located on the FCS agent-only website)
- 2 twin sheet blankets
- 1 inflatable beach ball
- 1 rope
- 1 roll of tape
- Food group signs from Lesson 1
- Go, Slow, and Whoa signs on green, yellow, and red paper
- Post-survey (one for each student)
- Pencils

Lesson Plan

| SAY | DO |
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Hello! Do you remember my name? Do you remember where I work? Great! What did we talk about the last time I was here? That's right, we talked about good oils and bad fats. Can anyone tell me some examples of oils. Great! What kind of fat do we want to watch out for? That is correct, saturated fat. Let's take a look at the entire MyPyramid again to see what you remember.

That's great. Today we are going to talk about being physically active and why you should follow the recommendations from MyPyramid to be healthy for life. First, let's talk about what physical activity is and why we should avoid sedentary activities.
Being active means moving your body. When you are sedentary, you are doing activities that do not force your body to work very hard or get stronger. Some amount of sedentary activities are okay, such as reading a book or completing homework on your computer, but you should limit the amount of time spent in front of a TV or computer screen to 2 hours or less.

Can anyone tell me how much physical activity we are supposed to have each day? That's correct, it is important to be physically active for at least one hour ( 60 minutes) each day. It's okay if you are active for

| SAY | DO |
| :---: | :---: |

10 or 15 minutes at a time, as long as it all adds up to a total of 60 minutes or more each day. Let's take a closer look at physical activity and why it's important for us to be active.

I have an activity to help us get started moving. I need five students (any number will do) to volunteer to be on one team. May I have five volunteers to be on another team? Great! Come on up.

Present the "Get Moving: One Step at a Time" short PowerPoint lesson slide show located on the FCS agentonly website under Child Health. The presentation also has speaker notes. The take-home message is that you can take small steps everyday to help keep you active.

Gather the 2 teams of volunteers and explain to them that they will be playing a beach blanket volleyball game. Explain that they are to work together as a team to volley the ball back and forth over a net (line or rope on floor). After the teams are formed, they are handed a flat sheet. You will toss the beach ball into one sheet. The team receiving the ball will use the sheet to try and toss it to the other team over the established line. Continue tossing the ball until someone drops it. Dropping the ball gives the opposite team a point. The first team to score 7 points wins.
(Another game to play could be the following - depending on the availability of supplies and the amount of time you have for the lesson.)

Call students out to a large area. Place colored signs with each food group in a line about 10 feet apart. Call out foods every 3 seconds to keep them moving. The students will run to each food group. Getting them moving is the key.

| SAY | DO |
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That was fun! Let's try another activity. I'm going to place signs that say "Go, Slow, and Whoa" on the floor in a similar manner that I placed the food groups. I'm going to yell out a food, and you run to the appropriate sign. What would a "go" food be? That's right - whole wheat bread, fruits, vegetables, milk, and beans. What would a "slow" food be? That's right - ham, pizza, sports drinks, or white bread. What would a "whoa" food be? That's right - candy bars, chips, french fries, and even whole milk. Are you ready?

Name foods quickly. Again, the idea is to get them moving. The majority of the kids will go to the correct place. Stop them only if they are way off base on the foods. Go to: http://kidshealth.org/kid/stay health $\mathrm{y} /$ food/go slow whoa.html for a list of go, slow, and whoa foods.

That was fun! Please have a seat. Thanks for letting me visit with you about MyPyramid and why it is important to eat healthy food and be physically active. I hope you have learned something. I was very impressed with your knowledge and how well you behaved for me. I have another 10-question survey for you to answer. Please take a moment to complete the survey so I can see what you have learned.

Distribute the post-survey to students. You may need to read each question aloud and give them time to answer. Discourage visiting or sharing answers. Collect the completed surveys. Compare the answers of the pre-survey to the post-survey.

Thanks for answering your survey. I hope to see you again next year.

## Resources Used

MyPyramid poster and mini-poster handout from USDA - www.mypyramid.gov
Paper food models from Oregon Dairy Council - www.oregondairycouncil.org
Wheat Foods Council (downloadable grain graphic and information available for educators/ professionals) - www.wheatfoods.org

Whole Grains Council - http://www.wholegrainscouncil.org/
"Standing on Your Own: Foods for Preventing Osteoporosis" curriculum, Texas AgriLife Extension Service. Authors: Sharon Robinson, PhD, RD; Mary Bielamowicz, PhD, RD; A. Shanna Wright Rodgers. Funding provided by USDA

Instant Pudding recipe/directions from University of Arkansas; Cooperative Extension Service
Pictures of meat from AggieMeat: Meat Judging http://aggiemeat.tamu.edu/judging/meatjudging.html

Discover Beans crossword puzzle from Food \& Health Communications, Inc. (license to copy)
Go, Slow and Whoa food information from www.kidshealth.org (permission granted)
Live Well Tool Kit, prepared by the Naturally Nutrient Rich Coalition, published by Cattlemen's Beef Board and National Cattlemen's Beef Association

## Pre/Post Survey <br> Nutrition for <br> $\qquad$

Please circle ONE answer for each question. Thanks!!!

1. How much bread, cereal, rice, pasta, and/or crackers do you usually eat in one day?
A. 1 or 2 slices (or 1 cup of cereal/rice/pasta)
B. 3 to 4 slices (or 2 cups of cereal/rice/pasta)
C. 5 to 6 slices (or 3 cups of cereal/rice/pasta)
D. More than 6 slices (or more than 3 cups of cereal/rice/pasta)
2. How many cups of vegetables do you usually eat in one day?
A. None
B. 1 cup
C. $1 \frac{1}{2}$ cups
D. 2 cups
E. $2^{1 / 2}$ cups
3. How many cups of fruit do you usually eat in one day?
A. None
B. $1 / 2$ cup
C. 1 cup
D. $1^{1 / 2}$ cups
4. How many cups of milk do you usually eat in one day?
A. None
B. 1 cup
C. 2 cups
D. 3 cups or more
5. When you get home from school, you usually eat:
A. Chips/Crackers
B. Fruit/Vegetables
C. Candy
D. Cookies
E. Other $\qquad$
6. When you get a drink, you usually choose:
A. Soda
B. Water
C. Milk
D. Fruit Juice (orange juice, apple juice, grape juice)
E. Sports Drinks (Gatorade, Powerade)
F. Punch (Capri Sun, Sunny Delight, Kool-aid)
G. Other $\qquad$
7. When you have time to do what ever you would like, you usually:
A. Watch TV
B. Play video games
C. Play outside (sports, ride bike, skate)
D. Sleep
E. Other $\qquad$
8. Milk is an important source of $\qquad$ .
A. Vitamin A
B. Vitamin C
C. Fiber
D. Calcium
9. You eat chips, candy, cookies, pizza, french fries:
A. Several times a day
B. Once a day
C. Twice a week
D. Hardly ever

10 . What is the outer coating of a whole grain called?
A. Bran
B. Shell
C. Germ
D. Endosperm

