Up for the Challenge

Lifetime Fitness, Healthy Decisions

Health, Fitness, and Nutrition Curriculum

4-H/Army Youth Development Project

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This curriculum comes with a resource list in Appendix B containing suggestions for educational teaching materials. This does not imply Army or 4-H endorsement of these products, or the vendors thereof. Army CYS staff and other users should use their discretion in substituting or replacing these items.

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Introduction

A Growing Nation

The American population often makes unhealthy decisions concerning physical activity, health, and nutrition. These decisions occur in all communities and in people of all ages. The result of these choices is that more than half of the total population is overweight or obese.

According to the Surgeon General, Health and Human Services, being overweight is a risk factor for health conditions seen more frequently in children such as increased blood pressure (hypertension), Type II diabetes, increased total cholesterol, insulin resistance, sleep apnea, bowed legs, joint problems, back pain, early puberty, depression, anxiety and weight cycling. These problems often stay with those who are overweight throughout their lives.

The 2010 Dietary Guidelines for Americans report that an alarming 32% of American youth are overweight and 17% are obese. This percentage is even higher among minority youth populations.

Children who are properly nourished and physically fit are more likely to be active in their school classrooms and achieve higher standardized test scores. Unfortunately, we find that youth are increasingly sedentary. They often engage in activities that are technology-driven and require little physical exertion.

Physical education may be limited or nonexistent in many schools. Many children eat too many processed foods containing too much sugar and fat. According to the 2010 Dietary Guidelines for Americans, approximately 23% of the total daily calorie intake for youth comes from snacks. Unfortunately, today's popular snacks have more calories, fat and sugar than ever before.

Strengthening Fitness and Health

Up for the Challenge: Lifetime Fitness, Healthy Decisions is a resource for Army Child, Youth and School Services (CYSS) to use to strengthen the baseline programming for Sports, Fitness and Health activities. This document is the Instructor Guide for Sports Directors and can be used as part of the CYSS Sports and Fitness Program Initiative: Get Fit, Be Strong, which is a comprehensive health, fitness and wellness campaign to increase children and youth's physical activity and teach healthy lifestyle practices.

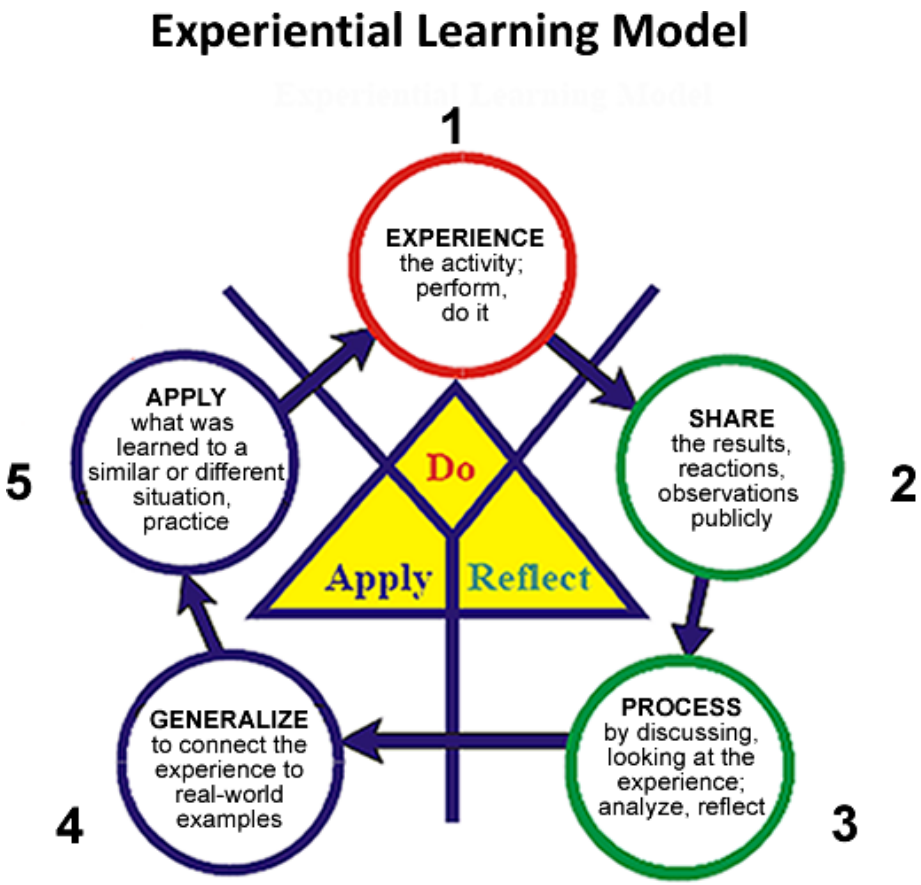
Up for the Challenge provides learning that is specific to a child's individual needs and goals within a non-competitive setting. The mission of 4-H is to develop life skills in youth. Through participation in activities, lessons, discussions and application of ideas presented in the *Up for the Challenge* curriculum, youth will strengthen their technical, communication, social, and emotional skills.

The core method used by 4-H to educate youth is "learning by doing." In recent years, 4-H has adopted a formal model to depict this process called the National 4-H Experiential Learning Model. This model is based on a 5-step learning process that includes the following steps:

1. Experience the project or activity with minimal guidance from an adult
2. Share reactions and observations with others about the experience

3. Process or analyze the experience to determine what was most important
4. Generalize the experience to connect it to real world experiences
5. Apply the knowledge and skills learned to other similar life situations.

In experiential learning, youth are presented with a question, problem, situation, or activity. Instead of being told the answers, they must make sense of it for themselves. The graphic below depicts the process.



Parents know the eating and health habits of their children and the challenges youth face in their community. They can also be the most effective teachers and advocates of behavior changes in their children. Sports directors and after-school care providers face a challenge informing families about how they can get involved to support this curriculum and help their children develop healthy lifestyles. Program facilitators will need to develop an outreach strategy that realistically accounts for time pressures and job responsibilities of all families.

This curriculum is designed to answer four key questions:

- How can we help children and youth shift to healthier habits that can last a lifetime?
- How can we prevent eating problems and overweight youth?
- How can we reduce sedentary time by building physical activity into a child's or youth's day?
- How can we help each child and youth to be healthier at their current size?

Up for the Challenge takes a wellness approach -- encouraging youth to be active and make healthy decisions throughout their lifetime. There is no need for alarm, blame, or criticism. Wellness is not about perfection or achieving certain numbers. It is about overall health and well-being, including physical, mental and social well-being, and not merely the absence of disease or infirmity.

Wellness is like a tripod. It works best if all legs are equally balanced. Wellness is achieved when the mind and body work together to make decisions that benefit the whole. The three legs are: physical activity, good nutrition, and healthy lifestyle choices. The *Up for the Challenge* curriculum provides Sports Directors and youth educators with information to help children make healthy choices in all three areas.

Up for the Challenge Objectives

The objective of this curriculum is to provide Sports Directors and youth development workers with tools to create an educational experience that allows them to:

- Assess youth's personal goals
- Plan physical activities for youth, especially those not athletically inclined
- Eliminate practices that may humiliate youth
- Incorporate other related curriculum such as the Boys and Girls Club of America's Triple Play[1] into programming
- Provide a variety of healthy choices: lifestyle, eating, and physical activity
- Provide developmentally appropriate nutrition concepts
- Model positive, simple, consistent nutrition and physical activity messages
- Focus on knowledge and skills to make healthy personal decisions
- Teach self management skills for monitoring goals
- Teach cooperation, fair play, responsible participation and the joy of being active
- Promote and encourage healthy lifestyles through activities

The *Up for the Challenge* curriculum includes fitness, nutrition, and health lessons for each of three age groups: School Age - Kindergarten to 5th grade; Middle school – 6th to 8th grade; Teen - 9th grade and older. The five chapters in this curriculum are:

Chapter 1 – Back to Basics
Chapter 2 – Healthy Decisions for Living Well
Chapter 3 – Fueling the Body
Chapter 4 – Consumer Challenge
Chapter 5 – Activity for Life

Each lesson provides expected youth outcomes, instructor essential information, preparation instructions, supplies, lesson time, handouts, and opportunities for reflection. Also included are

[1] Triple Play is an initiative of the Boys and Girls Clubs of America. Its aim is empowering young people to make informed decisions about their physical, emotional and social well-being.

activities for youth to do independently. These activities encourage support from a parent, caring adult, or sibling. Each lesson has at least one Technology Challenge to apply the lesson to another situation. Instructors should consider the lessons in this Instructor Guide to be just the beginning in creating a wellness program that is fun and interesting for youth and staff.

PHYSICAL ACTIVITY

Physical activity is important for youth. The United States Department of Health and Human Services' 2008 Physical Activity Guidelines for Americans recommend that children and teenagers get 60 minutes of moderate or vigorous physical activity everyday to help control weight, build muscular strength, achieve aerobic fitness (heart and lung capacity), and increase bone mass through weight-bearing activities. That may sound ambitious, but this hour of activity does not have to be completed all at one time. For example, a 10-year-old child might achieve this goal in one day by walking the dog for 15 minutes, playing soccer for 30 minutes, and running and jumping on the playground for 15 minutes. Broken down this way, it seems manageable.

This curriculum includes three types of physical activity:

- **Aerobic or cardiovascular** - Aerobic activity increases the heart and breathing rates and burns calories. Examples of aerobic activities include walking at a brisk pace, competitive soccer or basketball, bicycling or swimming.
- **Strength training and weight-bearing** – This type of activity helps to build strong bones and muscles by working the musculoskeletal system against gravity or weights. Examples of weight-bearing or strength-building exercises for children include rope climbing, pull-ups, push-ups, walking, running, and typical playground activity. Weight training is not recommended for youth before puberty.
- **Flexibility and balance** - These activities reduce the risk of injury and should be incorporated into every moderate or vigorous activity, particularly as a cool-down. Examples of flexibility exercises include stretching, yoga, and martial arts.

Ideally, children should have a combination of these types of activities throughout the week. After school programs can provide an informal, safe environment to support daily physical activity.

Notes to Instructors

There are many web site references in *Up for the Challenge* in the Technology Challenge sections and in other lesson components. Although all the web site addresses were checked at the time of publication, web sites frequently move, change, or disappear.

Instructors should check all web sites to be used in a lesson before directing youth to go there. If a web site is no longer available, the instructor may find a substitute and note it in the guide.

Lesson Components

Each lesson includes one or more of the following components:

- Preparation (set up, supplies and educational materials)
- Outcomes
- Instructor Essential Information
- Discussion
- Activities
- Now We're Cookin'
- Reflect
- Apply
- Technology Challenge

Lesson components may be broken out by age groups, or one or more age groups may be combined. Each lesson has one or more outcomes describing the objectives for that lesson.

Lesson Outcomes are marked with age group icons as follows:


All Ages


School Age


Middle School


Middle School • Teen


Teen

Most of the handouts used in the lessons can be found in Appendix A and will be identified with an A symbol. Ordering information for other handouts and suggested teaching materials is available in a Resources List in Appendix B. These resources will be indicated by an RL symbol.

In the *Preparation* column, the instructor will find a description of how to get ready for the lesson. It includes:

- Preparation time
- Supplies
- Handouts & Books (also recipes, charts, and brochures)
- Set Up

Instructors should review each lesson in its entirety before teaching to be sure to include all the lesson components for a specific age group. For some lessons, the class will benefit by having older children and youth involved in setting up and leading some of the activities.

The duration and intensity of exercises in fitness lessons may need to be adjusted to

accommodate different fitness levels of youth. The instructor should always provide water breaks during these activities. The breaks should be more frequent in warm weather.

Evaluation

University of Maryland Extension has developed evaluation tools for use with *Up for the Challenge*. Visit www.maryland4h.org and search for *Up for the Challenge.*

Chapter 1 Back to Basics

Introduction

Chapter 1 introduces best practices in the areas of eating and exercising. It makes extensive use of *MyPlate* as the basis for choosing the types and amounts of foods eaten. Youth learn how to create a healthy diet by learning the daily requirements for each food group. Back to Basics is designed to acquaint youth with the fundamentals of exercise including aerobic, bone and muscle strengthening, and flexibility activities. A variety of activities and games are used to illustrate these types of physical exercise.

One of the most critical lessons in maintaining overall good health is The Importance of Good Hygiene. Youth learn proper handwashing and how often it is needed during ordinary daily activities.

Instructors will find both nutrition and physical activities marked specifically for each age group. Frequently the Middle School and Teen groups are combined. The lesson includes discussions and activities to do independently, which helps to reinforce the learning.

Lesson Summary

1.	Get in the Movement Groove - Introduction to Physical Activity	Fitness
2.	MyPlate - The Beginning Challenge - Introduction to Nutrition	Nutrition
3.	The Importance of Good Hygiene	Nutrition
4.	In Beat - The Heartbeat	Fitness
5.	Think Your Drink	Nutrition
6.	Muscle Mania: Move it or Lose It	Fitness
7.	Picking Protein	Nutrition
8.	Flexibility is Fabulous	Fitness
9.	Eating Rainbows	Nutrition
10.	Grainy Brainy	Nutrition

Lesson 1: Get in the Movement Groove

Introduction to Physical Activity

PREPARATION

5 minutes

SET UP

- ❑ Before lesson begins, set up easel or use walls to hang self-stick easel paper
- ❑ Set up CD player
- ❑ Have youth sit in semi-circle around easel or wall

SUPPLIES

- ❑ Easel and markers
- ❑ Activity Pyramid RL
- ❑ CD player
- ❑ A variety of upbeat and relaxing music
- ❑ Jump ropes, balls, hula-hoops, etc.

Outcomes (School Age)

The purpose of this lesson is to have the children:

- Explore the benefits of exercise
- Identify why participation in exercise/physical activity is important
- Share activities they can do with friends and families
- Understand the three types of physical activity
- Participate in a warm-up and cool-down activity
- Participate in a cooperative physical activity

Discussion

DO (School Age) 10 minutes

? Ask: Why is physical activity good for you? Use an easel to record answers. Have children share ideas. Possible answers: stronger bodies, better at sports, staying healthy, disease prevention, feel better.

? Ask: What physical activities do you do on a regular basis? Possible answers: dancing, tumbling, soccer, T-ball, walking the dog, swimming, playing outside.

Talk about the importance of warming up muscles before beginning exercise and cooling down afterward. It reduces risk for injury during strenuous activities, and increases flexibility and balance.

Explain that there are three kinds of exercise and describe how they benefit your body. Give examples of each. Use the Activity Pyramid to illustrate these examples.

- Exercise that increases heart and breathing rates (aerobic). Aerobic activity makes your heart, lungs, blood vessels and muscles stronger. Examples: running, fast walking, jumping rope, or swimming.
- Exercise that builds strong bones and muscles (strength training). Examples: push-ups, chin-ups, sit-ups, rope climbing, running or jumping.
- Exercise that stretches muscles, tendons and ligaments (flexibility) to improve balance and reduce injury. Examples: martial arts, yoga, dance, and stretching.

Lesson 1: Get in the Movement Groove

SET UP
Set up CD player

SUPPLIES
- ❑ CD player
- ❑ A variety of upbeat and relaxing music

Activity 1 - Warm-Up, Aerobics, Cool-Down

DO (School Age) 25-30 minutes

This is a three-part activity. The children will participate in a warm-up activity, an aerobic activity, and a cool-down activity.

Instructor Note: The duration and intensity of the exercises in this lesson may need to be adapted to accommodate different fitness levels of the children. The instructor should always provide water breaks during these activities. The breaks should be more frequent in warm weather.

WARM-UP 5 minutes

Have the children stand in a large circle with plenty of room around each child to allow for movement. Tell children that they will be playing a game called Move to the Music. Explain that when the music starts you will give a command to start walking in a circle or marching in place to warm up their bodies before stretching. Play music for walking or marching for at least 3-5 minutes. Tell them that when the music stops they need to stop and listen to instructions.

Tell the children to find a partner. Explain that they are to match the body parts you call out with their partner. For example, if you call out "sole of foot to sole of foot," they might face each other with one foot up touching their partner's foot. Or "elbow to knee" would allow one child to bend down and touch the other elbow to a partner's knee. Select body parts that require the children to stretch.

After the children have completed the matching portion of the exercise, start the music again and have them begin walking in a circle or in place. Continue stopping and starting the music and calling out body matching commands until the children have been active for at least 10 minutes.

You can increase the intensity of the warm-up activity by having the children skip, walk quickly, jump or jog between commands.

AEROBICS 15-20 minutes

In this part, the children will play Make A Game[2]. Divide them into groups of four. Set out several pieces of play equipment such as

[2] Adapted from *Jump Into Foods and Fitness*, Michigan State University Board of Trustees, 2007

Lesson 1: Get in the Movement Groove

jump ropes, hula-hoops, balls, scarves, etc.

Have each group pick two to three pieces of equipment. Give each group 3-5 minutes to create a game or activity involving the whole group and using each piece of equipment.

Tell the children that each member of the team must be an active participant in the game or activity that their group invents.

Have each group demonstrate their activity to the larger group. Remember, the purpose of this activity is to get every child moving and participating.

COOL-DOWN 5 minutes

In this part of the activity, the children will stretch and relax to music. Set up the CD player and play relaxing music.

Have the children gather in a large circle. Explain that they will be cooling down their muscles. Tell them that after strenuous activities, they need to give their bodies a chance to recover. Have them first stretch one arm to the ceiling, pushing their arm higher and higher. Repeat with the other arm.

Have the children stretch both arms, lifting them higher and higher, holding the stretch for at least 15 seconds. Next, have them sit on the floor with their legs stretched forward and their backs straight. Tell them to reach toward their legs while keeping their back straight and their head aligned with their spine. Have them bend from the waist and hold this stretch for at least 15 seconds.

Finally, have the children lie on their backs with their arms extended overhead. Have them stretch their arms and legs in opposite directions and hold this stretch for at least 15 seconds.

REFLECT (School Age)

? Ask: Who exercises regularly now? Have children share some of their exercise activities.

? Ask: What activities can you do with friends/family?

? Ask: How much time do you spend each day watching television, playing video/computer games?

? Ask: What other activities might you do instead of watching television, playing electronic games, or using the computer?

Lesson 1: Get in the Movement Groove

APPLY (School Age)
Ask the children to discuss with family members, ways in which they can spend more time together being active.

Ask the children to keep a list of physical activities they do during the next 24 hours. Suggest that they use this list to motivate themselves to gradually increase their physical activity.

PREPARATION

5 minutes

SET UP

- ❑ Set up easel or hang self-stick easel paper
- ❑ Have children sit around easel or in front of wall
- ❑ Ask for volunteer to record class ideas
- ❑ Set up CD player

SUPPLIES

- ❑ Easel and markers
- ❑ Activity Pyramid RL
- ❑ CD player
- ❑ Aerobic dance DVD such as Zumba, Salsa, or other upbeat music

Outcomes (Middle School • Teen)

The purpose of this lesson is to have youth:

- Examine the benefits of exercise
- Determine why participation in exercise/physical activity is important
- Share activities they can do with friends and families
- Identify the three types of physical activity
- Participate in a physical activity

Discussion

DO (Middle School • Teen) 10-15 minutes

? Ask: What are the benefits of exercise and increased physical activity? Have youth list examples on easel. Possible answers:

- Reduce risk for chronic diseases such as heart disease, osteoporosis, Type II diabetes, high blood pressure, and some cancers
- Feel better, have increased energy and self esteem
- Look better, maintain weight or lose weight
- Help fight anxiety and depression

? Ask: Which of these things is most important to you? Have youth share some of the reasons they want to begin or increase their current physical activity program.

? Ask: What kinds of physical activities do you do on a regular basis? Possible answers: team and individual sports, dance, running, walking, bicycling.

Discuss briefly some of the different kinds of activities that youth may not think of as exercise, but that count as physical activity. Possible answers: cleaning your room, washing your car, dancing, walking the dog.

Lesson 1: Get in the Movement Groove

Explain why warming up muscles before exercise and cooling down afterward is important. It reduces risk for injury during strenuous activities and increases flexibility.

Describe the three different kinds of exercises and how they benefit your body. Give examples of each. You may use the Activity Pyramid to illustrate these examples.

- **Aerobic exercise** increases heart and breathing rates, burns calories and strengthens cardiovascular system (lungs and heart). Examples: running, walking briskly, jumping rope, swimming, etc.
- **Strength-training exercises** build strong bones and muscles. Examples: push-ups, chin-ups, sit-ups, rope climbing, weight lifting and running.
- **Flexibility exercises** stretch muscles, tendons and ligaments reducing the risk of injury and improving range of motion and balance. Examples: stretching, martial arts, yoga, dance.

Activity 2 - Feel The Beat

DO (Middle School • Teen) 25-30 minutes

This is a three-part activity: warm-up, aerobic exercise, and cool-down.

Instructor Note: The duration and intensity of the exercises in this lesson may need to be adapted to accommodate different fitness levels of the youth. The instructor should always provide water breaks during these activities. The breaks should be more frequent in warm weather.

WARM-UP 5 minutes

Begin playing relaxing music such as jazz or slow contemporary music. Explain to youth that this is an exercise to get them moving. They should "feel" the rhythm of the music. Slow, rhythmic movements can take the place of warm-up and stretching exercises. Start with music that is medium-paced with a strong beat. Ask youth to walk, march or dance to the beat. Continue this activity for at least five minutes.

AEROBICS 15-20 minutes

Play a dance exercise DVD or video such as Zumba, Salsa or other high-energy dance aerobics choice that appeals to young people. As the beat picks up, encourage youth to try and keep up. If they are reluctant to do the dance moves, have them walk in place and

Lesson 1: Get in the Movement Groove

move their arms to increase the intensity.

The instructor can use this opportunity to point out how breathing and heart rate increases as movement increases. Continue this activity for 15-20 minutes.

Cool-Down 5 minutes
Return to more relaxing, slower music or use the cool-down on the dance video. Have youth gradually slow down their activity level until they slowly walk either in a circle or in place. Continue this activity for five minutes.

REFLECT (Middle School • Teen)
? Ask: Can you think of ways you can be more active? Why should you be more active?

? Ask: How much time do you spend each day watching television, playing video/computer games?

? Ask: What other activities might you do instead of watching television or other screen time?

APPLY (Middle School • Teen)
Ask youth to discuss ways they can be more active when with their friends. Some examples might be having active social get-togethers, walking at the mall, hiking, and impromptu pick-up games. Others? Ask youth to keep a list of physical activities they do during the next 24 hours. Review these activities when the youth next meet as a group.

Technology Challenge
(All Ages)

To see if you meet the 2008 Physical Activity recommendations for Americans, visit the Choose MyPlate site: http://www.choosemyplate.gov and follow these directions:

- Click on "Super Tracker under Popular Topics." Scroll down to "Create your Profile" under "Get Started."
- Proceed to "Physical Activity Tracker" and enter activity type and duration

Enter your daily activities for at least one month to see how you rate.

Lesson 2: MyPlate - The Beginning Challenge

Introduction to Nutrition

PREPARATION
10 minutes

SET UP
Circle for group discussion

SUPPLIES
MyPlate poster RL

HANDOUTS & BOOKS
- ❑ *Using MyPlate in Your Life – 9-13 Year-Olds,* or
- ❑ *Using MyPlate in Your Life - Teens* A p. 196

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Use MyPlate as a personalized guide for healthy eating and physical activity
- Recognize the significance of portion/serving size in making food choices

Instructor Essential Information

MyPlate is the consumer icon that replaces MyPyramid. MyPlate and MyPyramid can be used together. The information about how much and what to eat has not changed. It can be found at: http://www.choosemyplate.gov. MyPlate is based on the USDA 2010

Dietary Guidelines for Americans. The Guidelines are designed to help Americans choose diets that will meet nutrient requirements, promote health, support active lives and reduce the risks of chronic disease.

The MyPlate guidelines represent the best advice available about how to choose healthful foods and be more active.

Discussion

DO (All Ages) 10 minutes

Introduce MyPlate. Show the MyPlate poster with the names of the food groups covered up.

? Ask: What does the MyPlate symbol look like to you? Answer: A plate that represents the two key aspects of good nutrition - portion

Lesson 2: MyPlate - The Beginning Challenge

size and healthy foods. Each of the colors in the plate represents one of the five food groups.

? Ask: What are the different colors and which food groups do they represent? Have youth guess. Answers: orange = grains, green = vegetables, red = fruits, blue = dairy, purple = protein.

? Ask: What are some examples of healthy foods from each group? Possible answers: lean meats, chicken, fish, nuts, beans, green beans, salad, broccoli, whole wheat bread, brown rice, apples, oranges, grapes, low-fat milk, etc.

? Ask: Why do you think the food on the plate is represented by different size sections? Answer: The MyPlate graphic represents proportions of foods we should eat. The fruit and vegetable sections together should make up half of the plate. The orange section stands for grains and takes up about one quarter of the plate. Protein foods are represented by approximately a quarter section of the plate.

? Ask: What do you think the blue circle stands for? Answer: The blue circle represents low-fat or fat-free dairy such as milk, yogurt and cheese, or calcium fortified soy milk.

Tell youth that they will learn more about each food group in subsequent lessons, but for now they should remember the following four messages associated with each part of the plate.

1. Make half your plate fruits and vegetables
2. Drink fat free or 1% milk
3. Make at least half of the grains you eat whole grains
4. Vary your protein food choices

HANDOUTS & BOOKS

- *Using MyPlate In Your Life –9-13 Year-Olds,* or
- *Using in MyPlate in Your Life – Teens* A p. 196

Activity 1 - Using MyPlate

DO (All Ages) 20-25 minutes

This activity has two steps. Youth will first estimate their daily calorie needs, then build an eating plan. The instructor may need to assist School Age youth in estimating their daily calorie needs (Step 1 below).

Youth will need a copy of the *Using MyPlate in Your Life – 9-13 Year-Olds* or *Using MyPlate in Your Life – Teens* worksheets for this activity. They are located on the University of Florida Institute of Food and

Lesson 2: MyPlate - The Beginning Challenge

Agriculture web site, and also in Appendix A. To download the handouts, go to the following site and scroll down to MyPlate Worksheets: http://fycs.ifas.ufl.edu/Extension/HNFS/MyPlate/

Using the handouts, have youth complete the following:

- Step 1 - Estimate Your Daily Calorie Needs
- Step 2 - Build Your Eating Plan

This will help youth to plan meals for the day based on their nutrient needs, including beverages and snacks.

Instructor Note: Have youth save the completed handouts, or keep copies in the classroom. They will be used in other lessons.

PREPARATION

SET UP

- ❑ Youth can help with the set up.
- ❑ Lay food and pretzels out on plates.

SUPPLIES

See recipe for ingredients and utensils list.

Now We're Cookin' - MyPlate Kabobs

(All Ages) 🕒 20 minutes

Have youth wash their hands using the *Proper Handwashing* steps on page 25. Youth will make a snack called "MyPlate Kabobs." The recipe is in Appendix A.

REFLECT (All Ages)

? Ask: Are you surprised at your caloric needs? Did you think you would need more or fewer calories?

APPLY (All Ages)

Make a copy of your worksheets to take home and share with your family.

HANDOUTS & BOOKS

Recipe: *MyPlate Kabobs* A p. 204

Technology Challenge

(All Ages)

Visit http://www.choosemyplate.gov and click on "Super Tracker and Other Tools." Then click on "Daily Food Plans" to help a family member discover how many servings they would need based on age and activity level.

Lesson 3: The Importance of Good Hygiene

Preparation
30 minutes

Set Up
Make jelly bean jars.

Supplies
- ❑ Black light RL
- ❑ GlitterBug lotion or powder RL
- ❑ Handwashing poster
- ❑ 4 lbs miniature jelly beans
- ❑ 5 graduated size plastic containers with tight fitting lids
- ❑ One flip chart
- ❑ Paper
- ❑ Tape
- ❑ Markers

Handouts & Books
Buddy Bear's *Handwashing Troubles* book RL

Outcomes (All Ages)
The purpose of this lesson is to have youth demonstrate good personal hygiene through proper handwashing.

Instructor Essential Information
The Partnership for Food Safety Education (PFSE) is your resource for food safety and safe food handling information. The "Fight BAC!" message is: Clean, Separate, Cook, Chill. This lesson deals with the "Wash Your Hands" part of the "Clean" message. Check out this website for more complete food safety messages: http://www.fightbac.org.

We know that the primary way in which bacteria get into your food is from your hands. According to the Centers for Disease Control and Prevention, the single most important thing we can do to keep from getting sick and spreading illness to others is to wash our hands.

Proper Handwashing
Review the steps for washing your hands correctly.

1. Wet hands with warm running water prior to reaching for soap, either in bar or liquid form.
2. Rub hands together to make lather. Do this away from running water, so the lather isn't washed away. Wash the front and back of hands, between fingers and under nails. Continue washing for 20 seconds. Sing Happy Birthday twice or sing the ABC's as a way to count 20 seconds in a fun way.
3. Rinse hands well under warm running water.
4. Dry hands thoroughly with a clean towel or air dryer.
5. Note that alcohol-based hand sanitizers, gels or antibacterial wipes are not a substitute for properly washing hands and should only be used when soap and water are not available.

Set Up Details
You will need five plastic containers filled with jelly beans (germ jars) to illustrate the 2-hour food safety rule for perishables. The miniature jelly beans represent germs. The five containers need these quantities of jelly beans: 5, 20, 80, 320, and 1,280. Instead of counting the jelly beans for each one, use a measuring cup to estimate the number of jelly beans being placed into a container. Do this by counting the number that fit into a 1/4 cup measure and then use that number to estimate the quantities.

Lesson 3: The Importance of Good Hygiene

Discussion

DO (School Age) 15 minutes

Read *Buddy Bear's Handwashing Troubles*. Discuss the importance of proper handwashing. This will prepare children for the GlitterBug activity.

Activity 1 - Cleaning 101

DO (Middle School • Teen) 20 minutes

Go to the American Cleaning Institute website http://www.cleaninginstitute.org to find out how and when you should wash your hands. Scroll to the bottom of the page and click on "Kids Corner." Download a handwashing page or poster to hang up by the handwashing sink.

Activity 2 – Hygiene & Food Safety

DO (All Ages) 20 minutes

Discuss the importance of good personal hygiene to food safety. Review the proper handwashing steps. Have everyone take the Handwashing Challenge.

HANDWASHING CHALLENGE

You will be using the GlitterBug lotion or powder and black light to illustrate proper handwashing.

- Put a pearl-sized drop of glow lotion or powder on youth's hands.
- View hands under the black light.
- Have the group wash their hands.
- Have them check their hands under the black light to see how thoroughly they have washed. Any areas that are still "glowing" illustrate an area that needs to be washed more thoroughly.

Instructor Note: Dry hands and calluses absorb some of the lotion so even after washing well you may see some "glowing."

GERM JARS

To illustrate the importance of the USDA two-hour food safety rule, which is "No perishables should be left at room temperature for more than two hours," show the "Germ Jars" and describe as

Lesson 3: The Importance of Good Hygiene

follows. Pick up the jar with five jelly beans in it and say we have five bacteria to start with. Every 15-20 minutes the number of bacteria doubles. Point out the appropriate germ jars and say, at 0 minutes there are 5 bacteria; at 30 minutes, 20 bacteria; at 60 minutes, 80 bacteria; and at 90 minutes, 320 bacteria. After two hours there are 1,280 bacteria.

Activity 3 – When To Wash Your Hands

DO (All Ages) 20 minutes

It is important to wash your hands after many activities. Divide youth into two groups. Have each group think about when they should wash their hands. Have them write their answers on strips of paper or brainstorm ideas. Examples:

- When you are preparing food
- After you go to the bathroom
- After you blow your nose
- When you come in from play
- After you sneeze
- Before you eat
- After playing with your pet

Have each group post their answers on the wall. Discuss the two groups' answers.

REFLECT (School Age)
? Ask: What did Buddy learn about germs? About handwashing? About when to wash?

REFLECT (Middle School • Teen)
? Ask: Why is handwashing so important?

Technology Challenge

(All Ages)

Go to the American Cleaning Institute website www.cleaninginstitute.org and get the recipe for bubbles by scrolling down and clicking on "Kids Corner." Read about the art and science of making bubbles, and then make your own.

(Middle School)
Check out the Centers for Disease Control and Prevention's Podcast on: "Kids Teaching Kids ... Clean Hands Save Lives!" http://www2c.cdc.gov/podcasts/player.asp?f=6037

Lesson 3: The Importance of Good Hygiene

More information can be found on the website for the School Network for Absenteeism Prevention (SNAP) program. SNAP is an education arm of the CDC working to improve health by making hand washing an important part of the school day. http://www.cdc.gov/Healthyyouth/foodsafety/snap.htm

(School Age • Middle School)
Check out the American Cleaning Institute website for tips on proper handwashing techniques: http://www.cleaninginstitute.org

Lesson 4: In Beat – The Heartbeat

Aerobic Physical Activity

PREPARATION

5 minutes

SET UP

Set up CD player.

SUPPLIES

- ❑ Activity Pyramid poster RL
- ❑ CD player
- ❑ A variety of upbeat music
- ❑ Jump ropes

Outcomes (School Age)

The purpose of this lesson is to have children:

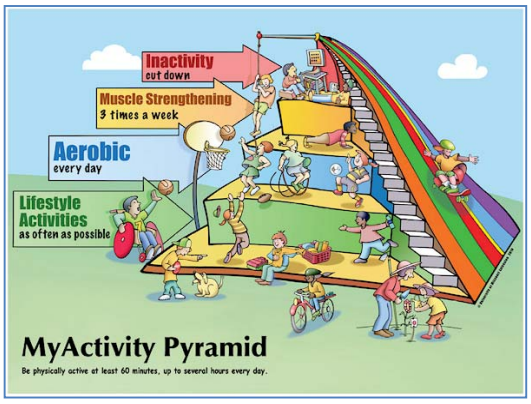
- Understand the difference between aerobic and non-aerobic activities
- Calculate their heart rate before, during, and after exercise
- Participate in warm-up, aerobic, and cool-down activities

Discussion

DO (School Age) 15 minutes

? Ask: What activities have you done recently that were aerobic and made your heart beat faster?

Talk about the differences between exercises that make your heart beat faster for a longer period of time such as running, swimming, basketball, bicycling, and those that don't last as long such as push-ups, sit-ups, stretching, etc. Explain that healthy people need a combination of all exercises. You may wish to use the *Activity Pyramid* poster to illustrate this.



Tell the children that during aerobic exercise, your heart, lungs and blood vessels work harder because your body needs more oxygen and blood for the working muscles.

Explain the importance of time, intensity, and frequency of physical activity for youth as follows. The United States Department of Health and Human Services 2008 Physical Activity Guidelines for Americans recommend that youth do moderate or vigorous intensity activity at least 60 minutes each day. They should also do muscle and bone strengthening activity at least three times a week. Exercises such as jumping rope and playing soccer can be moderate or vigorous activities that also help build muscle and bone.

You may use the Activity Pyramid to show that moderate or vigorous physical activity can mean anything from riding a bicycle to playing

Lesson 4: In Beat – The Heartbeat

at the playground.

Activity 1 - Calculate Your Heart Rate

DO (School Age) 15 minutes

Demonstrate how to calculate a heart rate using either the carotid (neck) or wrist methods. Explain that your pulse is easier to find after you've been exercising because your heart is beating faster and harder.

- **Carotid Method** – Using the carotid artery, lightly place your index and middle fingers together on one side of your neck just below your jawbone. Press lightly with your fingers until you feel your pulse. Have youth calculate their resting heart rate.

Instructor Note: If you see any youth pressing on both sides of their neck, reiterate that they should press on one side only. This caution relates to the possibility of passing out if both sides of the neck are pressed after exercise.

- **Wrist Method** - Turn your right arm so that the palm of your hand is facing up toward the sky. Place your left index and middle fingers together on the right side of your right wrist. Press lightly until you feel a pulse. Using the second hand on a clock or watch, tell youth to begin counting their pulse when you say "start." Tell them to stop counting at 10 seconds. Youth will take this number and multiply it by six to find their resting heart rate. Example: your measured heart rate during 10 seconds is 12. 12 X 6 = 72. 72 is your resting heart rate.

Have youth practice calculating their heart rates as they move, first walking and then jogging. Discuss how their heart rate increases as they change from walking to jogging.

Activity 2 - Warm-Up, Aerobics, Cool-Down

DO (School Age) 30 minutes

This is a three-part activity in which youth participate in a warm-up activity, an aerobic activity, and a cool-down activity.

Instructor Note: The duration and intensity of the exercises in this lesson may need to be adapted to accommodate different fitness levels of the youth. The instructor should always provide water, especially in warm weather.

Lesson 4: In Beat – The Heartbeat

WARM-UP: A WALK IN THE FOREST 5 minutes
Have group members stand facing you to mirror your movements. Each youth should have at least one arm's length of space on all sides to move about freely.

This activity is designed to warm-up the body prior to physical activity. Feel free to use your imagination as you narrate your Walk in the Forest and to add other events or features to your adventure!

The leader begins the Walk In The Forest activity by saying: Imagine you are walking through the forest on a sunny day and you notice lots of beautiful clouds in the sky. Reach your arms up (arms go up) and stretch your fingers to touch the clouds. Keep stretching to try and feel those fluffy, beautiful clouds. Higher and higher you reach towards the clouds. Continue marching and stretching arms up overhead for 1-2 minutes.

While still marching, begin snapping your fingers and say, All of a sudden, the rain starts to come down. At first, the rain is light (keep snapping fingers). Then the rain starts to fall harder and harder. Clap your hands softly, getting louder and louder. Continue marching and clapping for 1-2 minutes.

While still moving and marching say, the forest is very overgrown in this part of the woods and you need to push tree limbs and bushes out of the way. Bend slightly and move your arms in large sweeping movements in front of you moving imaginary tree limbs out of your way.

Begin to jog in place slowly and progressively speed up while still clapping and say, all of a sudden you see a bear in the woods and it is coming toward you! Run as fast as you can to get away from the bear. Hurry, hurry! The bear is catching up! Continue running for 1 minute.

Whew! We finally lost the bear. Let's continue on our way through these beautiful woods. Look! The sun is coming out and the rain is stopping. Slow down to a walk and quietly snap fingers. Oh, there are those beautiful clouds again. Let's stretch our arms up again to say hello to the sun and clouds. Walk slowly and stretch arms up.

AEROBICS: PROGRESSIVE JUMP ROPE 15-20 minutes
Play fast-paced music appropriate for jumping rope. Move to an area where each youth can jump freely without interference. Give each youth a jump rope and let them experiment jumping on one foot and then on two. Ask the youth to see if they can jump continuously using any method for one minute.

Lesson 4: In Beat – The Heartbeat

Next, challenge youth to jump for two minutes without stopping. After continuous jumping for several minutes, have youth stop and calculate their heart rates. To vary this activity, have youth come up with alternate ways to use their jump ropes. Suggest they form groups of 3-4 to develop jumping games or obstacles courses with their ropes. For more information on jumping, see Chapter 5, Lesson 3, Jump Into Fitness.

COOL-DOWN: USING THE JUMP ROPE 5 minutes

Play relaxing music for cool-down. While holding their jump ropes, have youth form a circle or stand at arm's length from each other. Tell youth to double or triple their ropes and hold the two ends above their heads. Pulling the ends of the rope tightly, have the youth stretch their arms upwards pulling the rope taut. Hold this stretch for at least 15 seconds. Repeat. Next, with the rope still overhead, have youth lean to the right and hold for 15 seconds and then repeat on the left side. Repeat stretch on both sides.

Tell youth to sit on the floor with legs straight out in front of them. Have youth loop the rope around the bottom of their feet, holding the ends of the rope in both hands. Have them gently pull their upper bodies towards their legs using the rope to pull their bodies forward bending from the hips not the waist. Have them keep their spines and neck straight and in alignment. Hold this stretch for 15 seconds and repeat two more times.

Tell youth to lie on their backs with their left leg bent and left foot flat on the floor. The right leg is held straight up. Place the doubled jump rope around the right calf and gently pull the right leg toward the body with the rope. Hold for 15 seconds. Repeat on the left leg. Repeat this exercise several times on both legs. Youth should be able to pull their legs in closer toward the body each time, but should not force the stretch.

REFLECT (School Age)

? Ask: Did you notice other changes in your body when your heart rate increased during the jump rope activity. What were these changes?

? Ask: What are some of the different ways you can use jump ropes to exercise?

? Ask: Where does jumping rope fit into the Physical Activity Pyramid?

APPLY (School Age)

Make a list of aerobic physical activities you can do at home that

Lesson 4: In Beat – The Heartbeat

need little or no equipment. Calculate your heart rate several times over the next few days while you are doing different activities. Write these numbers down and determine which activities make your heart beat faster.

PREPARATION

10 minutes

SET UP

- ❑ Place heart rate chart on wall
- ❑ Designate an official time keeper
- ❑ Have heart rate logs and pencils ready for each youth
- ❑ Divide youth into two groups
- ❑ Set up CD player

SUPPLIES

- ❑ CD player
- ❑ A variety of upbeat and relaxing music
- ❑ Jump ropes
- ❑ Pedometers RL
- ❑ Pencils
- ❑ Watch with a second hand
- ❑ *Heart Rate Chart* poster RL

HANDOUTS & BOOKS

Heart Rate Log A
P. 205

Outcomes (Middle School • Teen)

The purpose of this lesson is to have youth:

- Understand the difference between aerobic and non-aerobic activities
- Understand the importance of monitoring heart rate
- Calculate heart rate before, during and after exercise
- Participate in warm-up, aerobic, and cool-down activities
- Practice using a pedometer to measure steps

Discussion

DO (Middle School • Teen) 15 minutes

Use the Discussion for School Age youth found on page 29.

Activity 1 - Calculate Your Heart Rate

DO (Middle School • Teen) 15 minutes

Use instructions for Activity 1 - Calculate Your Heart Rate for School Age youth found on page 29. Give youth the *Heart Rate Log* handout, which can be found in Appendix A. Have them record their resting heart rate on their chart.

Activity 2 - Warm-Up, Aerobics, Cool-Down

DO (Middle School • Teen) 30 minutes

This is a three-part activity where youth will participate in a warm-up activity, an aerobic activity, and a cool-down activity. Divide the youth into Group 1 and Group 2 so that each group can do a different aerobic activity.

WARM-UP - A WALK IN THE FOREST 5 minutes

Use the instructions for Activity 2 - Warm-up for School Age youth found on page 31.

AEROBICS 15-20 minutes

Follow these instructions to check your heart rate twice during the

Lesson 4: In Beat – The Heartbeat

exercise:

- Have designated timekeeper stop activity after 10 minutes so youth can check heart rates.
- Have the timekeeper stop activity after 20 minutes so youth can check their heart rates.
- Have youth record their 10 and 20-minute heart rates on their logs at the end of the aerobics activity.

Group 1 - Progressive Jump Rope Use the instructions for Activity 2, Aerobics - Progressive Jump Rope, for School Age youth found on 31. Instruct the designated timekeeper to stop the activity after 10 minutes to do a group heart rate check. Have youth record their 10-minute heart rates in their logs.

Group 2 - How Far is 1,000 Steps? Remind youth that walking is an excellent form of exercise that needs no special equipment but has many benefits. This walking activity can be conducted outdoors or indoors, on a flat surface or on stair steps.

- Explain to youth that using a pedometer is a great motivator to get moving. Explain that walking with a pedometer can help you meet daily exercise goals, challenge yourself to improve, and have fun as you keep track of your steps!
- If available, have each youth attach a pedometer to their waistband or belt. Clear the pedometer by pushing the reset button. Make sure pedometers are set to "Step" and not to miles or kilometers.
- Instruct the designated timekeeper to stop the activity after 10 minutes to do a group heart rate check. Have youth record their 10-minute heart rates in their logs.
- Have youth walk around the designated area, beginning slowly, then gradually walking more briskly. Challenge youth to see if they can register 1,000 steps on their pedometers.

NOTE: If you do not have pedometers, use this formula: 20 minutes of moderately brisk walking is equal to one mile (2,000 steps). Thus, 10 minutes of brisk walking is equal to 1,000 steps. Also, pedometers are inconsistent in their readings and recorded number of steps may vary.

COOL-DOWN - USING THE JUMP ROPE 5 minutes
Use the Activity 2 - Cool-down instructions for School Age youth found on page 32.

Lesson 4: In Beat – The Heartbeat

REFLECT (Middle School • Teen)
Ask youth to compare resting heart rates with heart rates after 10 and 20 minutes of exercise as recorded in their logs.

? Ask: Looking at your heart rate log, is there a difference between the heart rates of the rope jumpers versus the walkers? Why or why not? Answer: rope jumpers' heart rates will be higher than walkers because jumping rope is a higher intensity exercise.

? Ask: Is your heart working in the beneficial range? Find out by comparing your exercising heart rate with the heart rate chart. If not, how might you increase your exercise intensity?

? Ask: Were you surprised by how quickly you were able to walk 1,000 steps?

APPLY (Middle School • Teen)
Make a list of aerobic physical activities you can do at home that need little or no equipment. Take a friend or family member for a walk and see if you can walk at least 20 minutes without stopping. Calculate your heart rate several times over the next few days while you are doing different activities. Write these numbers down and look at the activities that make your heart beat faster.

Technology Challenge

(Middle School • Teen)

Find out how to increase your heartbeat. Visit http://www.presidentschallenge.org and click on "Choose a Challenge." Click on "Presidential Active Lifestyle Award (PALA)." Learn more about increasing physical activity, how to commit and stick to daily physical activity, how to set realistic goals, and track your progress. Remember every journey begins with a first step.

Lesson 5: Think Your Drink

PREPARATION

🕒 2¾ hours
Includes grocery shopping, classroom set up, and making fat test tubes (60-90 minutes to prepare stations)

SET UP

See Set Up Details.

SUPPLIES

- ❑ See recipes for ingredients and utensils list
- ❑ Poster or picture of skeleton

Fat Test Tubes

- ❑ 4 test tubes or small containers with lids (baby food jars, plastic containers)
- ❑ Vegetable shortening
- ❑ Measuring spoons
- ❑ Microwaveable container
- ❑ Labels
- ❑ Markers

Make Mine Orange

- ❑ Empty 20 oz. bottles with tops: orange soda, orange drink, orange juice, orange beverage or punch with tops
- ❑ Teaspoon measure
- ❑ Sugar
- ❑ Funnel

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Describe how empty calories in sodas often replace the healthier beverages such as milk, water and juice
- Learn to use nutrition labels to compare drink choices
- Compare the taste and fat content of different types of milk and be encouraged to select low-fat dairy
- Prepare a quick and simple nutritious drink

Instructor Essential Information

This lesson helps youth understand why beverages are important. Beverages are mostly water, a nutrient that's essential to life. In fact, a lot of your body is water -- from 55 to 70 percent of your total body weight. Every one of our body functions depends on water. You can only live a few days without it.

JUICES, SODAS, PUNCHES, JUICE-LIKE DRINKS

Juice is an easy way to enjoy fruit. It provides vitamin C to help heal cuts and bruises, fight infection and better use iron from food. Vitamin A, found in some juices, contributes to healthy eyes and skin. Fruit or vegetable juice contains carbohydrates in the form of natural sugars or starches that are used for energy. One serving of juice a day (3/4 cup) is enough. Juice is high in calories. Read the label and look for 100% fruit juice rather than fruit drinks or punches. Avoid the empty calories in sodas and juice drinks.

The new MyPlate suggests that most of us should eat or drink three low-fat or fat-free dairy foods every day to get enough important nutrients such as calcium, protein, Vitamin A, Vitamin D, magnesium, and potassium. Unfortunately, many Americans fail to consume the currently recommended three daily servings of dairy foods or soy milk.

Combining physical activity with three servings of low-fat or fat-free dairy foods helps build strong bones. Youth need plenty of calcium as well as Vitamin D and physical activity for their growing bones. Youth's bones grow the most between ages 11 and 18.

Sugary drinks are poor nutritional choices and often take the place of nutrient-rich low-fat milk or water. Sodas are mostly water, sugar or sugar substitute, and a little flavoring. Sugared sodas are

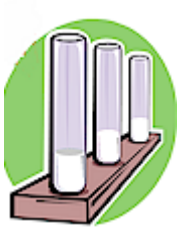
Lesson 5: Think Your Drink

Soda Anyone?
- ❑ Empty Coke bottle
- ❑ Sugar
- ❑ Funnel
- ❑ Measuring spoons

Taste It And Decide!
- ❑ Small cups
- ❑ Full milk cartons and empty cartons of whole milk, 2% milk, 1% milk, fat-free milk, low-fat chocolate milk, lactose-free milk

HANDOUTS & BOOKS

Can You Guess How Much Fat Is In Each Cup of Milk? A p. 206



a source of empty calories.

REGULAR FAT VS LOW-FAT

What is the difference between regular fat and low-fat dairy foods? Dairy foods can be high in fat, especially the harmful kind, saturated fat. Low-fat dairy products, which are 1% fat or less, are the healthiest choice for all children over two years old.

SET UP DETAILS

Have youth help with the set up whenever possible. Prepare the four stations using the supplies listed at left: Fat Test Tubes, Soda Anyone?, Make Mine Orange, and Taste It and Decide!

Fat Test Tubes This station provides a visual representation of the amount of fat contained in four kinds of milk. Use vegetable shortening to represent fat. Weigh or measure the amount of fat needed for each tube using the list of fat in each kind of milk below. For example, use 8 grams of vegetable shortening for whole milk since it contains 8 grams of fat. Note that 5 grams of fat is equivalent to 1 teaspoon of shortening.

Different kinds of milk have different amounts of fat. Here is the fat content for one 8 ounce cup of several kinds of milk.

- Whole milk – 8 grams of fat (1.6 teaspoons)
- 2% milk – 5 grams of fat (1 teaspoon)
- 1% milk – 2.5 grams of fat (1/2 teaspoon)
- Fat-free – 0 grams of fat

Place a few tablespoons of vegetable shortening into a microwaveable container and melt it in the microwave. This will only take a few seconds. Pour the melted shortening into the fat tubes.

Find a safe and sturdy place where test tubes can cool in an upright position. Put the lid on each tube and set in a safe place while it cools to become a solid. Label the tubes describing the number of grams of fat in each. The tubes can be stored in the freezer for future use.

Instructor Note: When you store the test tubes, remember that warm temperatures will melt the shortening and make them messy to use. You may substitute paraffin wax for shortening.

Make Mine Orange Make a visual representation of the amount of sugar in different drinks. Refer to the labels on the empty bottles of these drinks to determine the amount of sugar they contain: orange soda, orange drink, orange juice, and fruit beverage or punch. Four

Lesson 5: Think Your Drink

grams of sugar equals 1 teaspoon. Pour the total amount of sugar into each bottle. Put tops on tightly.

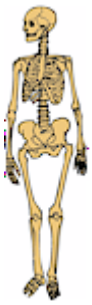
Soda Anyone? Place the supplies at each station as indicated in the instructions.

Taste It And Decide! Read the supply list and have supplies ready in the refrigerator. Make copies of the handout *Can You Guess How Much Fat Is In Each Cup of Milk?* Label cups with the letters A, B, C, D, E, and F, to correspond with the different types of milk as shown below. Do not let the youth see which type of milk goes into the cups. Pour these different types of milk into cups.

- A = whole milk
- B = 2% milk
- C = 1% milk
- D = fat-free milk
- E = chocolate milk
- F = low-fat chocolate milk

Activity 1 - Low-Fat Or Fat-Free Dairy

DO (All Ages) 45 minutes



Show youth a model or photo of a skeleton. Explain that the skull is a bone. Point out the ribs.

? Ask: Which organ does the skull protect? Answer: the brain.

? Ask: Which organs do the ribs protect? Answers: heart, lungs, and parts of the stomach, spleen, and kidneys. It is important to have strong bones to protect vital organs.

Describe the difference between regular and low-fat or fat-free milk, sour cream, yogurt, and cheese. Refer to the grams of fat in each kind of milk under set up details on page 37. Explain that it is important to choose the low-fat or fat-free dairy products because they have less fat.

? Ask: How many of you drink 1% or fat-free milk? Stress that 1% and fat-free milk are considered low-fat choices whereas 2% and whole milk are not.

There are important nutrients in milk that help us create and maintain strong bones. The 2010 Dietary Guidelines recommend three cups of low-fat or fat-free dairy per day to meet our daily requirements.

Lesson 5: Think Your Drink

Go to the Fat Test Tubes station. Use the test tubes and empty milk cartons to illustrate the different amounts of fat found in one cup of different types of milk. Explain that youth can look at the labels to get the nutrition facts for each product.

Go to the Taste It and Decide! station. Give each youth a copy of the handout *Can You Guess How Much Fat Is In Each Cup Of Milk?* Have youth taste the milk and record their choices. The point of this activity is to demonstrate that they may find that lower fat milk is just as acceptable as a higher fat choice. Once youth have completed their forms, reveal the labels.

? Ask: Who in the group would be willing to drink a lower fat milk choice based on this tasting? How would you encourage your family members to purchase lower fat milk products? How many grams of fat would you save by drinking the lower-fat choice?

Activity 2 - Look At All That Sugar!

DO (All Ages) 20 minutes

At the Soda Anyone? station, have one youth measure the amount of sugar in a 20-ounce bottle of Coke. Next, display the visual representations of the amount of sugar in the five different drinks in the Make Mine Orange station that you set up before class.

? Ask: How many sodas do you drink in a week?

? Ask: If you multiply the number of sodas you drink in a week times 52, how many sodas do you drink in a year? Calculate how much sugar you drink from sodas in a year.

REFLECT (All Ages)

? Ask: What happens when you drink a lot of soda? Answers: excess empty calories, tooth decay, replaces healthy drinks such as milk and water

? Ask: What can you do to make smart drink choices? Answers:

- Drink milk with meals, for snacks, smoothies, etc.
- Drink juice from vending machines, for snacks, juice floats, frozen juice boxes, etc.
- Drink soda only occasionally, not with meals; pour a glass rather than drink from a large bottle
- Drink water
- Don't super-size

Lesson 5: Think Your Drink

SUPPLIES
See recipes for ingredients and utensils list.

HANDOUTS & BOOKS
- ❑ Recipe: *Three Fruit Drinks* A p. 207
- ❑ Recipe: *Make Your Own Yogurt* A p. 208

Now We're Cookin' – Three Fruit Drinks

DO (All Ages) 15-30 minutes depending on recipes

Have youth wash their hands using the *Proper Handwashing* steps on page 25. Have youth break into groups to prepare the following recipes. See the recipes in Appendix A for ingredients and steps.

- *Fruit Juice Spritzer*
- *Juice Float*
- *Power Me Up Smoothie*

Put samples of all three drinks into small cups and have youth taste these delicious and healthy drinks.

APPLY (All Ages)
Check the kind of milk in your home refrigerator. How can you influence your family to select lower fat milk?

Make your own yogurt at home. Directions can be found in the Make Your Own Yogurt recipe in Appendix A.

Technology Challenge

(All Ages)

Go to: http://www.icecream.com Click on your state and then on Fun Facts. You will then be on the Ice Cream Flavorology page. See what your favorite ice cream flavor says about you!

Go to: http://www.got-milk.org. Learn about all of the health benefits of drinking milk.

Help improve the planet's health by thinking of ways to re-use milk jugs or cartons for things such as bird houses or outside planters or plant shields when the weather gets chilly.

Lesson 6: Muscle Mania - Move it or Lose It

Strength and Weight-Bearing Activities

PREPARATION

20 minutes

SET UP

Set up circuit training stations with the equipment needed, see Set Up Details.

SUPPLIES

Amounts determined by number of youth in each group.

- ❑ Dyna-Bands or light hand weights (1-5 lbs)
- ❑ Cones or other markers
- ❑ Masking tape
- ❑ Mats or towels
- ❑ Jump ropes
- ❑ Large balls
- ❑ Stop watch or watch with second hand
- ❑ Fat and muscle models RL

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Understand the relationship between strong bones, muscles, and exercise
- Participate in a warm-up activity
- Participate in a strengthening activity
- Participate in a cool-down activity

Instructor Essential Information

If the space required for this program is unavailable, the instructor may divide the lesson into parts and do only two to three stations at a time.

Instructor Note: The duration and intensity of the exercises in this lesson may need to be adapted to accommodate different fitness levels of the youth. The instructor should always provide water, especially in warm weather.

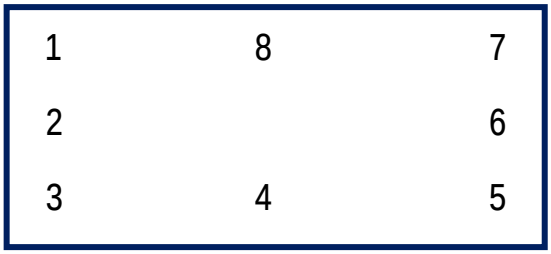
SET UP DETAILS

Before the lesson begins, set up the eight circuit training stations shown below either in a large room or in a large level outdoor area. The area can be grassy or paved. The area should be large enough to allow a shuttle run to take place in the middle and an endurance run around the outside of the stations.

CIRCUIT TRAINING STATIONS

1. Push-ups
2. Shuttle Run
3. Wall Sits
4. Endurance Run
5. Crunches
6. Bicep Curls
7. Ball Pass
8. Jump Rope

Follow the diagram below to set up the circuit training stations. The specific equipment needed at each station is described in Activity 1 on page 43.



Lesson 6: Muscle Mania - Move it or Lose It

Discussion

DO (All Ages) 5 minutes

Remind youth that strong bones are a result of a healthy diet that includes three servings of low-fat dairy and weight-bearing exercise. Show youth the 5 pound fat and muscle models and ask them to describe the differences. Point out that while both models weigh the same, the fat model is larger and bumpy, while the muscle is smoother and denser. Tell youth that muscle burns more calories than fat.

? Ask: What are some examples of weight-bearing activities? Possible answers: running, rope jumping, basketball, weight lifting.

? Ask: What are the benefits of weight-bearing or strengthening activities? Possible answers: improves balance, increases muscle mass, increases metabolism, increases strength, strengthens bones, decreases risk for diseases such as osteoporosis, arthritis, and Type II diabetes (improves glucose control).

Activity 1 Circuit Training

DO (All Ages) 45-50 minutes

WARM-UP 5 minutes

Ask for a volunteer to lead the group in a game of Simon Says. The leader stands in front of group and gives commands for movement. For example, the leader says "Simon says take three giant steps." All youth do this.

The leader continues with simple movements like walking and stretching arms and legs for 3-5 minutes. Include movements such as "giant steps", "arm circles" marching, etc.

STRENGTHENING 35-40 minutes

Introduce group to the eight-station Circuit Training course. First, lead youth through each station and demonstrate the activity. Explain that youth will do each activity for two minutes, walk for two minutes, then rotate to next station until all stations have been completed.

Explain that the object is to do each activity in good form following the instructions as written; it is not a race to see who can be the fastest. Be sure that youth understand that the instructor is the official timekeeper.

Lesson 6: Muscle Mania - Move it or Lose It

Divide youth equally into groups. Assign each group a different station to begin the activity. Youth must wait for the "start" and "stop" signals.

The instructor will begin by saying “Start.” Each activity will last two minutes, then the instructor will say “Stop.” At the end of each activity, youth will walk around the perimeter of the circuit training area for two minutes until the instructor says “Stop.” At the end of each walk, youth rotate clockwise to the next station. Have youth repeat this process until each group completes all stations.

- **Station 1 - Push-Ups**
  (builds arm, shoulder and upper back strength) Youth lie face down, palms down under the shoulders and legs slightly apart with toes “propped” against floor. The youth push their arms up until they are straight and then lower their bodies until their elbows reach a 90° angle. The head and spine stay aligned. Do not let the head drop. If needed, youth can do a modified push up with weight on knees rather than toes.
- **Station 2 - Shuttle Run**
  (builds overall endurance and leg strength) Determine a starting line and mark several spots progressively farther away. Use lines on gymnasium floor if you have access to a gym. You can also use cones or whatever is available to mark the spots. Have youth sprint to the first marked spot on the floor, then sprint back to the starting line. Youth turn around and sprint to the next marked spot. Sprint back to the starting line, then forward to the third marked spot. Continue this pattern until youth have worked their way across the room or field. This can also be done at a brisk walk for youth who are unfit or do not want to run.
- **Station 3 - Wall Sits**
  (builds thigh muscle strength) Youth sit with their backs against a wall with knees bent at a 90 degree angle (thighs parallel to floor). Have youth hold for 30 second intervals or up to two full minutes if possible.
- **Station 4 - Endurance Run**
  (builds aerobic strength) Youth jog or walk briskly around the perimeter of the area for two full minutes without stopping.
- **Station 5 - Crunches**
  (builds abdominal strength) Youth lie on their backs on the floor with knees bent and feet flat on floor. Arms are straight out at their sides or supporting (but not lifting!!) the neck. The youth should bring shoulder blades off the mat using their abdominal muscles to lift and then slowly

Lesson 6: Muscle Mania - Move it or Lose It

lower their shoulder blades back to the floor.

- **Station 6 - Bicep Curls**
(builds upper arm strength) Using Dyna-Bands or light hand weights, have youth step on one end of the Dyna-Band with the right foot to hold it securely in place. Hold the other end of the Dyna-Band tightly in right hand. Keeping elbows tucked in close to the body, have youth pull up the right arm in a bicep curl. The curl should begin with right arm hanging straight, pointing toward the floor. Slowly "curl" the arm up ending with fist at shoulder level. Keep the wrist even with the forearm while curling up. Do two sets of 10 repetitions on both arms. One repetition is the complete lifting of the arm from the straight position to the curled position and down to the straight position again. Each repetition should be done to a slow count of 1-2-3-4 to the curled position and 1-2-3-4 to the down position.
- **Station 7 - Ball Pass**
(builds chest and arm strength) Two youth stand approximately 10 feet apart. Using a ball, the youth will pass the ball at chest level back and forth as many times as possible in two minutes.
- **Station 8 - Jump Rope**
(builds leg and aerobic strength) Allow youth to jump any way they wish as long as they are all moving during the two minute period.

COOL-DOWN 5 minutes

Have a second youth lead another round of Simon Says. Focus on large, slow motion movements such as swimming, stretching, or reaching.

REFLECT (All Ages)

? Ask: Which station did you like the best? Why?

? Ask: What is the connection between the circuit training activities and strengthening exercise? The circuit training activities are muscle-strengthening activities.

APPLY (All Ages)

? Ask: Which of these activities could you do at home?

? Ask: What are some of the problems you would encounter at home trying to do these activities? Possible answers: not enough space or lack of equipment.

Lesson 6: Muscle Mania - Move it or Lose It

? Ask: How could you change the exercises to make them easier to do at home?

Technology Challenge

(All Ages)

Being strong is cool! Learn more about strong bones at http://www.cdc.gov/powerfulbones. Click on "*Your Bones"* and see all the fun ways to build strong bones. How can you make your bones strong?

Lesson 7: Picking Protein

PREPARATION

15 minutes

SUPPLIES

- ❑ MyPlate poster RL
- ❑ Deck of cards
- ❑ Food models or Dairy Council food model pictures: fish, beans, nuts, eggs, veggie or tofu burger, etc. RL
- ❑ Two grocery bags, labeled: "Animal Protein," and "Plant Protein"

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Differentiate between the two types of protein sources – animal and plant
- Prepare and sample plant sources of protein
- Learn the recommended amount of protein for daily needs

Instructor Essential Information

All foods made from meat, poultry, fish, dry beans or peas, eggs, nuts, and seeds are considered part of the protein food group. Dry beans and peas are part of this group as well as part of the vegetable group. Most meat and poultry choices should be lean or low-fat. Fish, nuts, and seeds contain healthy oils, so choose these foods frequently instead of beef, pork, or poultry.

SET UP DETAILS

To prepare for the Animal/Plant Protein Relay, arrange the food models or Dairy Council food model pictures of protein sources such as fish, chicken, burgers, eggs, peanut butter, beans, nuts or seeds on one table at one end of the room. Mix the plant and animal types. You will need at least two protein items for each student, so you may need to cut out more pictures of protein foods from food or cooking magazines.

At the other end of the room, place two paper grocery bags - one labeled PLANT PROTEIN, the other labeled ANIMAL PROTEIN.

Discussion

DO (All Ages) 30 minutes

? Ask: How does the size of the protein piece on MyPlate compare to the other pieces? Identify the protein section on the MyPlate poster. Discuss the size of the protein section of the plate as compared to fruits and vegetables and grains; i.e., the protein and grain sections are each approximately one-quarter of the size of the plate while the fruits and vegetable pieces together make up one half of the plate.

? Ask: What kinds of foods are in the meat/protein group? Explain that there are two types of protein: animal-based and plant-based.

? Ask: Can you name some plant-based protein foods? Possible answers: nuts, seeds, legumes, dry beans, soy products.

Lesson 7: Picking Protein

Show youth food models or Dairy Council food model pictures of animal and plant-based proteins, such as chicken, beef, pork, veal, poultry, fish, or eggs, nuts, peanut butter, seeds, and beans.

Explain to youth that protein is an important nutrient for healthy growth. In the body proteins function as the building blocks for bones, muscles, cartilage, skin and blood, as well as enzymes and hormones.

Remind the group that legumes (e.g., beans) are in the vegetable group too. They fall under both groups because they are plant-based, and they provide a good source of protein. Legumes, soy, and nuts are all sources of plant protein.

Explain that MyPlate recommends that we get at least one to two servings daily (4-6 ounces) from the meat/protein group depending upon your age and activity level. Hold up a deck of cards to illustrate a 3-ounce serving size. Hold up your hand and show that the palm of your hand is approximately the size of a 3-ounce burger. Foods high in protein provide us with important vitamins and minerals such as vitamin B12, B6, zinc, iron and niacin. Fish, eggs, and lean cuts of meat and poultry are the healthiest animal protein choices.

Activity 1 Animal/Plant Protein Relay

DO (School Age • Middle School) 15-20 minutes

Divide youth into teams and run a relay race. The object of the race is to grab the food models or Dairy Council food model pictures of plant or animal protein foods from the table at one end of the room and place them in the correct grocery bag at the other end. Bags are labeled by their protein type: "PLANT PROTEIN," "ANIMAL PROTEIN".

Be sure to have enough protein foods to have students run at least twice. At the end of the game, check the bags to determine if youth properly categorized the animal and plant protein sources.

PREPARATION

5 minutes

SUPPLIES

- ❑ Pencils
- ❑ Paper

HANDOUTS & BOOKS

- ❑ *Using MyPlate in*

Activity 2 How Much Meat And Beans?

DO (All Ages) 20 minutes

Have students calculate how much protein (meat and beans) they need based on calorie requirements. They can use the handouts from Lesson 2, *Using MyPlate in Your Life – 9-13 Year-Olds* or *Using MyPlate in Your Life - Teen*. They will also need the handout: *How*

Lesson 7: Picking Protein

Your Life – 9-13 Year-Olds, or
- ❑ *Using MyPlate in Your Life - Teen* A p. 196
- ❑ *How Much Meat and Beans?* A p. 210

PREPARATION

5 minutes

SUPPLIES
- ❑ 5 lb muscle model RL
- ❑ 5 lb fat model RL
- ❑ Tape measure
- ❑ Scale
- ❑ Flipchart or blackboard
- ❑ Pencils
- ❑ Paper

SUPPLIES
See recipes for ingredients and utensils list.

HANDOUTS & BOOKS
- ❑ Recipe: *Let's Try Black Beans and Corn Salsa* A p. 211
- ❑ Recipe: *Fresh Spinach and Cilantro Salad* A p. 212
- ❑ Recipe: *Walnut Hummus with Apples* A p. 213

Much Meat and Beans?

Activity 3 - Muscle vs. Fat

DO (All Ages) 30 minutes

Display the five pound fat and muscle models. Select four youth to record the following for each model on a flipchart or blackboard:

- Weight
- Length
- Circumference
- Describe muscle
- Describe fat

Compare muscle vs. fat. Muscle tissue is more "alive." It contains more blood and has more metabolic activity than fat. A pound of muscle needs between 35-50 calories a day to function, but a pound of fat needs only three calories a day! Muscle tissue burns a lot more calories than fat, by a ratio of about 14 to 1!

Now We're Cookin' – Salsa, Spinach Salad, Walnut Hummus, Bean Tacos

(All Ages) 35-45 minutes

Have youth wash their hands using the *Proper Handwashing* steps on page 25. Have youth break into groups to prepare any of the following recipes.

- *Let's Try Black Bean and Corn Salsa*
- *Fresh Spinach and Cilantro Salad*
- *Walnut Hummus with Apples*
- *Good for You and Tastes Good Too – Bean Tacos*

REFLECT (All Ages)
Have youth name all of the foods from the protein group in the recipes they just prepared (beans, nuts).

Lesson 7: Picking Protein

- Recipe: *Good for You and Tastes Good Too – Bean Tacos* A p. 214

? Ask: Can you name the foods you typically eat that are sources of protein? As each protein source is named, classify it as a plant protein or an animal protein. Determine whether it is a low-fat or high-fat protein source. This is a good opportunity to discuss portion size and how the food is prepared, both of which contribute to calorie and fat content.

? Ask: Do you think your servings of protein are the right size? Do you eat more than the recommendation? Refer to the handouts used at the beginning of the lesson. Remind youth that one serving is the size of a deck of cards, or the palm of a hand.

APPLY (All Ages)
At home, try a meal that uses a different type of protein than you are used to, such as beans or lentils. Share the recipes you just prepared with your family and friends.

Technology Challenge

(All Ages)

Have youth go to the web page: http://www.choosemyplate.gov and click on MyPlate, and then on "Protein Foods." Find out how much protein you need each day. Look at the many choices of protein sources.

Have youth go to the American Egg Board's website and explore another good protein source – eggs http://www.aeb.org/. Browse through the recipes under "Looking for egg recipes" and find something you'd like to make at home.

Visit http://www.soynutrition.com and learn about health benefits of eating soy and the MyPlate guidelines.

Resources

2010 Dietary Guidelines for Americans, U.S. Department of Agriculture, Center for Nutrition Policy and Promotion: http://www.cnpp.usda.gov/dietaryguidelines.htm

Lesson 8: Flexibility is Fabulous

PREPARATION

60 minutes to view DVD

SET UP

- ❑ Distribute towels or yoga mats
- ❑ Place TV or projector where all can see
- ❑ Set up CD player

SUPPLIES

- ❑ Mats and/or towels for each youth
- ❑ Streamers or scarves RL
- ❑ CD Player
- ❑ A variety of upbeat and relaxing music
- ❑ TV with DVD player
- ❑ 1 chair for each youth
- ❑ DVD: *Basic Yoga Workout for Dummies* RL

Outcomes (School Age)

The purpose of this lesson is to have the children:

- Understand the importance of stretching for overall fitness and health
- Participate in a yoga activity

Instructor Essential Information

SET UP DETAILS

The instructor should view and practice the *Basic Yoga Workout for Dummies* DVD before beginning the lesson. If you do not have access to the DVD, instructions for 6 postures are included in Activity 1. Distribute towels or yoga mats to each youth. Have the children stand far enough apart to allow for movement.

If you are using a television, place it in a central location where all the children can see the monitor. The children will be using different colored streamers or colored scarves. If you are using scarves, use bright, lightweight fabrics for best results.

Discussion

DO (School Age) 5 minutes

? Ask: Can you name some benefits of stretching and flexibility exercises? Possible answers: decreases risk for injury, helps body cool-down after vigorous activity, increases balance, increases stability and coordination, makes you feel better.

Review stretching activities such as jump rope stretching or the Feel the Beat warm-up activity from Lesson 1, Activity 2 on page 20. Have the children list other activities that might improve flexibility. Examples: dancing (ballet), martial arts (karate, tai chi, etc.), yoga. Share with the children that yoga is an ancient mind/body exercise that stretches and strengthens the body. It is more than 5,000 years old and originated in India. The exercises, called postures, are done in conjunction with controlled breathing. Yoga is practiced by athletes, dancers, and anyone wishing to increase flexibility.

Activity 1 - Yoga Postures

DO (School Age) 35-45 minutes

Have each child choose a streamer or scarf and find a space where they can move freely without interfering with anyone else or

Lesson 8: Flexibility is Fabulous

slipping on a yoga mat or towel. Demonstrate to the children how to move the streamer[3] in a variety of arm movements making different patterns in the air. Some suggestions might include forming figure 8's, and writing letters of the alphabet. Remind them to change hands frequently to stretch both sides of the body.

WARM-UP 5 minutes

Select music that has a range of tempos to inspire different movements. Play music and have the children make their streamers "dance." Remind them that they need to keep moving the entire time the music is playing. Continue movements for five minutes.

YOGA POSTURES 30-40 minutes

Practice the basic yoga breathing technique. Have children stand with eyes closed practicing even, slow breathing through the nose. Each posture is held for six breaths (breaths are taken in and exhaled through nose). Have the children sit on towels or yoga mats in front of instructor with legs crossed in front of them. Sit upright with shoulders back and chest up. The instructor will demonstrate each pose first. The children will then perform each of the postures described below, holding each one for six breaths:

- **Cat Pose** - Have youth get on hands and knees with flat or "neutral" spines. Hands are placed under shoulders. While inhaling, chest and head go up. When exhaling, round back like a cat. Repeat six times.
- **Mountain Pose** - Have youth stand with stomach and pelvis tucked in. Feet are under shoulders and are "grounded to the floor." Inhale and reach your arms over head with palms facing each other; exhale and bring arms down to the side. Repeat six times.
- **Standing Forward Bend** – Begin in the mountain pose. Bend knees slightly and bend over from the hips reaching fingertips to floor. Place fingertips on outside of foot keeping knees slightly bent at all times. Once in this position, do the following: inhale, slightly raise your upper body while keeping your spine straight and aligned with head. Exhale, lowering your head and back. Repeat six times.

- **Tree –** Begin in mountain pose. Stand on the right foot with chair on right side of body for support. Bring left foot up to right ankle or knee, resting sole of foot flat against leg. Bring hands up together in front of chest, palms

[3] Adapted from *Jump Into Foods and Fitness*, Michigan State University Board of Trustees, 2007

Lesson 8: Flexibility is Fabulous

touching. Inhale and push right foot into floor; exhale and press left foot into leg. Repeat six times. Reverse sides.

- **Downward Facing Dog** – Begin in the Standing Forward Bend position with knees bent and finger tips on outside of foot. Walk your hands forward until your body is in an inverted U position. Keep head and spine aligned. Inhale and push floor away; exhale and press heels down. It's fine if your heels don't completely touch the floor. Continue for six breaths.

- **Cobra** - Lie on belly with stomach pulled in, hands under shoulders. Straighten your arms until your chest and stomach are lifted off the ground. Inhale and lift chest; exhale and squeeze shoulder blades together. Repeat six times.

Note: Since yoga is a stretching and strengthening exercise, no cool-down is necessary.

REFLECT (School Age)

? Ask: What do you think about this breathing technique? How is it different from how you breathe during other activities?

? Ask: When do you think this breathing technique might be useful or helpful?

APPLY (School Age)

Ask youth to practice this breathing technique during the next 24 hours.

PREPARATION

See School Age Preparation, Set Up, and Supplies.

Outcomes (Middle School • Teen)

The purpose of this lesson is to have youth:

- Understand the importance of stretching and flexibility to overall fitness and health
- Participate in a yoga activity
- Understand the benefits of controlled breathing and its relationship to stress reduction

Activity 2 - Yoga Postures

DO (Middle School • Teen) 35-45 minutes

Have the youth do the Yoga Postures in Activity 1 for School Age youth, on page 50. Or, as an alternative, you may use a beginning

Lesson 8: Flexibility is Fabulous

Yoga DVD.

REFLECT (Middle School • Teen)

? Ask: What do you think about this breathing technique? How is it different from how you breathe during other activities?

? Ask: When do you think this breathing technique might be helpful? Is controlled breathing a good substitute for other physical responses? When?

APPLY (Middle School • Teen)

Ask youth to practice this breathing technique during the next 24 hours. Suggest that they try to use it during a stressful situation.

Technology Challenge

(All Ages)

Check out these ideas about ways to have fun. Go to the website: http://www.bam.gov/ and find lots of exciting ideas to increase activity, and have fun. Get tips on ways to look better and feel good about yourself and others. To create an Exercise Calendar, click on "Physical Activity" and then on "Activity Calendar." Then scroll to the bottom and select "Create My Calendar." You can set your own activity goals around what you like to do and check your progress each day. Reward yourself at the end of the week for meeting your goals!

Lesson 9: Eating Rainbows

PREPARATION

10 minutes

SUPPLIES

See Set Up Details

- ❑ Pencils
- ❑ Paper
- ❑ Food models RL
- ❑ Dairy Council food model pictures RL
- ❑ Grocery bag
- ❑ Pictures of fruits and vegetables
- ❑ Index cards
- ❑ Box or bag for index cards
- ❑ Fruit and vegetable descriptors
- ❑ MyPlate poster RL

HANDOUTS & BOOKS

- ❑ *Using MyPlate in Your Life – 9-13 Year-Olds*
- ❑ *Using MyPlate in Your Life - Teens* A *p. 196*

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Identify a variety of fruits and vegetables
- Describe the reasons why we need to eat more servings of fruits and vegetables each day
- Describe why color is an important component in fruit and vegetable choices
- Prepare healthful snacks

Instructor Essential Information

Using http://www.choosemyplate.gov as a reference, click on MyPlate at the top and then on fruits and vegetables to find out more. Fruits and vegetables are a colorful gateway to good health. Studies have shown that diets rich in fruits and vegetables may reduce the risks of heart disease, certain types of cancer, and other chronic diseases. Fruits and vegetables are good sources of many nutrients including potassium, fiber, Vitamins C & A, and folate.

SET UP DETAILS

Decorate Bag - Before class, decorate a grocery bag with pictures of fruits and vegetables. Then fill the bag with different fruits and vegetables. You can use the food models or Dairy Council food model pictures, or real fruit and vegetables. Try to choose fruits and vegetables that will be in the *Rainbow Fruit Kabobs* and *Crunchy Vegetable Burrito Banditos* recipes.

Fruit and Vegetable Descriptors - Write down words that describe characteristics of fruits and vegetables on slips of paper and put in a small box or bag. Examples: red, green, yellow, blue, white, orange, round, oval, tubular, stringy, bumpy, fuzzy, smooth, fibrous, rough, sour, sweet, chewy, tart, juicy, and crunchy.

Index Cards - On an index card write the recommended amount of fruit and vegetables per day for each of the youth named in the *Food Requirements Vary* activity on page 57.

Discussion

DO (All Ages) 5-10 minutes

Explain that fruits and vegetables are an important part of a healthy diet. They are nutrient dense, may help protect from disease, and are low in calories and fat. Explain that the USDA MyPlate

Lesson 9: Eating Rainbows

recommends that half of our plates should consist of fruits and vegetables.

? Ask: What fruits and vegetables did you eat yesterday? Write them down. Have youth refer back to completed handouts from Chapter 1, Lesson 2, *Using MyPlate in Your Life – 9-13 Year-Olds* or *Using MyPlate in Your Life - Teens* to determine if fruit and vegetable requirements have been met.

Activity 1 - Kaleidoscope Of Colors

PREPARATION
🕒 5 minutes

SET UP
See Set Up Details.

SUPPLIES
- ❑ 2 white plates
- ❑ Food models or Dairy Council food model pictures from all the food groups RL

DO (All Ages) 🕒 30 minutes

Use food models or Dairy Council food model pictures for this activity. Give each youth two plates. On Plate 1, have them place only food from the Grain, Dairy, and Protein food groups. On Plate 2 have them place food from all food groups, making half of their plates fruits and vegetables. Remind youth that the protein group includes meat, poultry, dried beans, eggs and nuts.

Plate 1	**Plate 2**
Grains	Grains
Protein	Protein
Dairy	Fruits
	Vegetables
	Dairy

? Ask: What differences do you see between the two plates in terms of colors, textures, and tastes?

? Ask: Do you see any other differences?

? Ask: What are some other fruits and vegetables that would add color to the plates?

? Ask: Does half of your plate usually consist of fruits and vegetables? Why is that important for your health? Emphasize that a variety of colorful vegetables and fruits will result in a more nutritious meal.

Activity 2 - Catch A Rainbow Everyday

PREPARATION
🕒 5 minutes

DO (School Age) 🕒 15minutes

Take out the decorated grocery bag filled with fruits and vegetables.

Lesson 9: Eating Rainbows

SET UP
See Set Up Details.

SUPPLIES
Decorated bag filled with models of fruits and vegetables or real food.

PREPARATION
5 minutes

SUPPLIES
Streamers or scarves in many colors RL

Have each youth reach in the decorated bag, touch a food and try to guess what it is, what color it might be, and whether it is a fruit or vegetable. After describing the item, pull it out of the bag to determine if they were correct.

Activity 3 - Color Is Important

DO (School Age) 15 minutes

Select one of the streamers or scarves used in the warm up activity in Chapter 1, Lesson 8, and have youth name some fruits or vegetables that are the same color as the streamer. Remind them that color is important because different colored fruits and vegetables contain different nutrients.

PREPARATION
30 minutes

SET UP
Make copies of handouts.

SUPPLIES
- White paper plates
- Colored pencils, markers, or crayons

HANDOUTS & BOOKS
- *Veggie Plant Parts* A p. 215
- *You Can Eat a Rainbow* A p. 216

Activity 4 - Veggie Plant Parts

DO (School Age) 30 minutes

For this activity, use the *Veggie Plant Parts* handout. Read the handout and have children do the Word List Game.

REFLECT (School Age)

? Ask: How many fruits should you eat each day? Answer: half our plate.

? Ask: How many vegetables should you eat each day? Answer: half our plate.

APPLY (School Age)

Using the *You Can Eat a Rainbow* handout, color the rainbow bands and then have children write the names of fruits and vegetables in the bands that match the band colors.

Do you have a variety of different colored fruits and vegetables?

Lesson 9: Eating Rainbows

PREPARATION

30 minutes

SUPPLIES

See Set Up Details.

- ❑ Index cards
- ❑ Box or bag for index cards
- ❑ Fruit and vegetable descriptor words
- ❑ Paper plates
- ❑ Food models or Dairy Council food model pictures of a variety of fruits and vegetables RL

Activity 5 - Descriptor Words

DO (Middle School • Teen) 15 minutes

Get out the box or bag with descriptor words that you prepared before class (see Set Up Details). Have each youth pick a descriptor word from the box or bag and name a corresponding fruit or vegetable to which it applies.

Activity 6 - Food Requirements Vary

DO (Middle School • Teen) 30 minutes

The recommended amounts of fruits and vegetables per day vary according to your age, sex and activity level. There are many different ways to get the number of servings you need for good health. The index cards for the following activity indicate the youth's age and sex and how many cups of fruits and vegetables they should eat each day.

Divide youth into five groups. Give each group a paper plate. Using the food pictures or models, have them fill the plate with fruits and vegetables for one of the following youth:

- **Jill and Jeremy** (age 4-8) – need 1 to 1½ cups of fruit, and 1½ cups of vegetables.
- **Josh** (age 9-13) – needs 1½ cups of fruit, and 2½ cups of vegetables.
- **Jenny** (age 9-13) – needs 1½ cups of fruit, and 2 cups of vegetables.
- **Jason** (age 14-18) – needs 2 cups of fruit, and 3 cups of vegetables.
- **Jennifer** (age 14-18) – needs 1½ cups of fruit, and 2½ cups of vegetables.

Note that the food models are made in serving sizes but the food model pictures may be estimates. Youth may need to estimate whether they have the correct serving sizes.

Lesson 9: Eating Rainbows

SUPPLIES

See recipes for ingredients and utensils list.

HANDOUTS & BOOKS

- ❑ Recipe: *Crunchy Vegetable Burrito Banditos* A p. 218
- ❑ Recipe: *Rainbow Fruit Kabobs* A p. 217

Now We're Cookin' – Rainbow Fruit Kabobs, Crunchy Vegetable Burrito Banditos

(All Ages) 45 minutes

Have youth wash their hands using the *Proper Handwashing* steps on page 25. Separate youth into two groups and have each group prepare one of the two recipes: *Rainbow Fruit Kabobs* or *Crunchy Vegetable Burrito Banditos.* The recipes are in Appendix A.

REFLECT (Middle School • Teen)
Have youth brainstorm ways to incorporate more fruits and vegetables into their daily meals and snacks.

APPLY (All Ages)
Work with your parents to develop a menu for one day that includes the appropriate number of fruits and vegetables for you. Give youth the *Using MyPlate In Your Life – 9-13 Year-Olds* or *Using MyPlate in Your Life – Teens* handout as a reference.

Technology Challenge

(All Ages)

Design a plate for better health. Visit http://www.aicr.org and click on "*The New American Plate*." Use it as a sample for designing a meal. Focus on color, taste and texture as you design your own individual plate. Select foods you like to eat.

Visit http://www.fruitsandveggiesmorematters.org. Click on "Get Kids Involved" and then on "Get Kids Involved in Healthy Cooking and Shopping." Go to "Healthy Cooking with Your Kids" and find some new ways to include more fruits and vegetables in your meals and other fun facts about fruits and vegetables.

Lesson 10: Grainy Brainy

PREPARATION

5 minutes

SET UP

- ❑ Place the MyPlate poster on the wall
- ❑ Make MyPlate handouts for all youth

SUPPLIES

- ❑ Grain bags RL
- ❑ Wheat stalk RL
- ❑ Rope (clothesline works well)
- ❑ MyPlate poster RL

HANDOUTS & BOOKS

- ❑ *What Are Whole Grains?* A p. 219
- ❑ *Using MyPlate in Your Life – 9-13 Year-Olds,* or
- ❑ *Using MyPlate in Your Life - Teens* A p. 196

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Discriminate between refined grain products and whole-grain products
- Learn the contribution of whole grains to good health
- Select whole grain products by learning to read whole grain descriptors on the nutrition labels
- Use whole grain choices to prepare food
- Use http://www.choosemyplate.gov/ as a means to identify and select whole grains
- Learn how to identify high-fiber foods and recognize the health benefits of fiber

Instructor Essential Information

Whole grains are an important source of fiber and other nutrients. Whole grain foods are made from the entire grain seed which is called the kernel. The kernel has three components: bran, germ, and endosperm. In the grain-refining process, most of the bran and some of the germ is removed, resulting in the loss of dietary fiber, vitamins, and minerals.

Most refined grains are enriched, meaning some of the nutrients are put back. Enriched refined grain products are required by law to be fortified with folic acid, as well as thiamin, riboflavin, niacin, and iron. Consuming three or more one ounce-equivalents (one slice of bread) of whole grains per day can reduce the risk of several chronic diseases, and may help with weight maintenance. The USDA MyPlate recommends that at least half of the grains you consume each day should be whole grains.

For more information, see the handout: *What Are Whole Grains*? in Appendix A or go to http://www.wholegrainscouncil.org/whole-grains-101/ and click on "What are the Health Benefits?" in the left hand column.

SET UP DETAILS

The grain bags may be made from grains obtained in health food stores or bulk food markets. The wheat stalk may be obtained from a craft store featuring dried flowers and plants.

Make the sample digestive track using the handout: *Making A Model of The Digestive System*. Or, have youth construct the digestive model at the beginning of Activity 3.

From the food models, select 1 slice of white bread, 1 slice whole

Lesson 10: Grainy Brainy

wheat bread, ½ bagel, ½ cup spaghetti, 3 cups popcorn, ½ English muffin, 1 cup wheat flakes, ½ cup rice, 1 tortilla, 5 crackers.

Discussion

DO (All Ages) 20 minutes

Introduce the grains section from MyPlate. Use the handout: *Using MyPlate in Your Life – 9-13 Year-Olds* or *Using MyPlate in Your Life – Teens*, or go to http://www.choosemyplate.gov/index.html and hover your cursor over MyPlate on the top bar. Click on the grains section of the plate.

Explore the different foods in the grains group, the health benefits, and suggested servings. Discuss the size of the grain section of the plate as it relates to the other MyPlate sections.

? Ask: What are some examples of grains? Possible answers include: rice, wheat, rye, oats, barley, and corn. Explain that half of our recommended daily serving of grains should be whole grains. Tell youth that later we will discuss how to identify whole grains.

PREPARATION

5 minutes

SUPPLIES

An inexpensive wind-up toy

Activity 1 – Grains Are A Source of Energy

DO (All Ages) 30 minutes

? Ask: Did anyone have toast, a bagel, or cereal for breakfast today? Who had pizza, rice, spaghetti, or tacos for lunch or dinner yesterday?

? Ask: These foods all have something in common. What is it? They are all foods made from grains and provide energy for our bodies.

Wind up a wind-up toy and let it move across the floor until it stops.

? Ask: Why did this toy stop running? Answer: it ran out of energy or fuel.

? Ask: How are our bodies like cars? Answer: they need fuel. Explain that our fuel is food. Grains, particularly whole grains, are a wonderful source of energy for our brain and muscles.

Lesson 10: Grainy Brainy

PREPARATION

🕒 10 minutes

SET UP

- ❑ Make a handout for each child

SUPPLIES

- ❑ Grain bags RL
- ❑ Wheat stalk RL
- ❑ Slice of white and whole wheat bread
- ❑ Bags of white and brown rice
- ❑ Enriched and whole wheat flour
- ❑ Empty white and whole wheat bread bags
- ❑ *What is a Whole Grain?* A

Activity 2 – The Components Of Wheat

DO (All Ages) 🕒 30 minutes

Show the youth the various types of grains: wheat, rice, oats, barley, rye, corn.

Today you will learn about grains from field to plate. For example, the farmer plants wheat kernels and they grow into plants that look like grass. The wheat develops into a stalk that yields about 50 wheat kernels. Kernels are ground into flour. Show the group a slice of enriched white and whole wheat bread. Explain that they are both made from the grain called wheat.

? Ask: What is the difference between these two slices of bread? To understand the difference between these two slices of bread we need to look at one wheat kernel and its parts. Show the class the "*What is a Whole Grain?"* handout. Explain that a kernel contains the bran, which gives us fiber, the germ which has lots of vitamins, minerals and protein, and the endosperm which gives us carbohydrates for energy.

When the kernel is milled or ground, the result is whole-wheat flour (whole means all parts of the kernel). Explain that white bread is made from flour from which the wheat bran and germ are removed. This removes the fiber and most of the vitamins and minerals that our bodies need. Manufacturers then put some of these nutrients back and call it enriched. Not all of the nutrients are replaced in this process and definitely not the fiber.

Show youth the bags of white and brown rice, and then the enriched and whole-wheat flour.

? Ask: Can you tell which contains whole grains? How? Next, hold up the two slices of bread again.

? Ask: Which is the healthiest choice? Tell youth that when they are looking for whole grain products, they must carefully read the labels. Some foods may look like whole grain products but they are not really whole grain. Sometimes a package will be labeled multi-grain or made with whole grains, but very few of the ingredients actually come from whole grains. There also is white bread made from whole grains.

Share with the class two empty bread bags - one from a whole grain loaf and one from a loaf that looks brown, but is not actually a whole grain product. Compare the ingredient labels. A food

Lesson 10: Grainy Brainy

product is considered whole grain if the first ingredient listed on the label is a whole grain such as whole wheat, whole rye, whole oats, etc.

PREPARATION
2 minutes

SUPPLIES
Paper and pencils

Activity 3 - Using The Internet To Find Out About Wheat

DO (All Ages) 30 minutes

This is an internet alternative to Activity 2, The Components Of Wheat and covers the same material.

Go to: http://www.choosemyplate.gov/index.html and hover the cursor over MyPlate on the top bar. Then choose grains to explore different foods in the group, the health benefits and suggested servings. This can be used to lead the discussion and further illustrate the use of the MyPlate website.

Ask youth to identify the two different sub-groups of grains. Go to the whole grains list. Make a list of five whole grain foods. Write a menu for your family for one day incorporating at least three whole grains that your family might enjoy.

PREPARATION
60 minutes

SET UP
See Set Up Details for making the digestive system model.

SUPPLIES
- ❑ 1 set of plastic teeth
- ❑ Empty ½ gallon jug
- ❑ Small intestine and large (ropes)
- ❑ Food models or Dairy Council food model pictures RL
- ❑ Grain bags
- ❑ Bags of white and brown rice
- ❑ Enriched and whole wheat flour

HANDOUTS & BOOKS
Making A Model Of

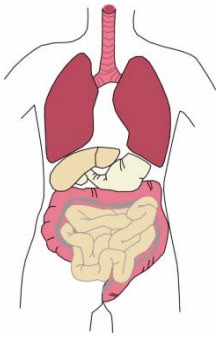
Activity 4 – Fiber And The Digestive System

DO (All Ages) 25 minutes

Instructor Note: Go to the KidsHealth® website and use the information there to explain the parts of the digestive system.

http://kidshealth.org/kid/htbw/digestive_system.html

You can make the digestive system model in advance or have youth construct the model as part of the activity. See both the Instructor Essential Information and *Making A Model Of The Digestive System* for details.



Ask for two volunteers. Give each person one end of the handmade digestive tract and have them move apart.

Have youth explain how food goes through the digestive system based on their website research; i.e., when we chew and swallow our food it goes down the esophagus and into the stomach. Then it travels through the 20 feet of small intestine, and 5 feet of large intestine. That's a long way for the food to go.

Lesson 10: Grainy Brainy

The Digestive System A p. 221

There is something in whole grains that helps move the food through the digestive tract. It's called fiber.

? Ask: Where is fiber found in the kernel? Answer: in the bran.

Show youth what a one-ounce portion of a whole grain food would look like. Examples:

• 1 slice of whole wheat bread • 5 whole grain crackers • ½ whole wheat bagel	• ½ cup whole wheat spaghetti • 1 corn tortilla • ½ cup brown rice	• 3 cups popcorn • ½ whole wheat English muffin • 1 cup wheat flakes

Show the group the whole grains you displayed in Activity 2. Ask youth to identify foods made from the whole grains shown in the display. Explain that at least half of the grain products we eat each day should be whole grains and it's even better if all of the grains we eat are whole grains.

PREPARATION
5 minutes

SUPPLIES
See recipe for ingredients and utensils list.

HANDOUTS & BOOKS
- ❑ *How Many Grains*? A p. 222
- ❑ Recipe: *Bread In A Bag* A p. 223
- ❑ *Using MyPlate In Your Life –9-13 Year-Olds,* or
- ❑ *Using in MyPlate in Your Life – Teens* A p. 196

Now We're Cookin' – Bread In A Bag

(All Ages) 30 minutes
Have youth wash their hands using the *Proper Handwashing* steps on page 25. Have youth prepare *Bread in a Bag*. The recipe is found in Appendix A.

Technology Challenge

(All Ages)

Use the resources on http://www.choosemyplate.gov to determine how much grain you need in a week. Record how many whole grains you have eaten in the last week. Make a meal plan to help your family eat whole grains using MyPlate. Refer to the handout *How Many Grains*, and to Chapter 1, Lesson 2, Activity 1, *Using MyPlate.*

Download the handouts from Chapter 1, Lesson 2: *Using MyPlate In Your Life – 9-13 Year-Olds* and *Using MyPlate in Your Life – Teens. Go to* http://fycs.ifas.ufl.edu/Extension/HNFS/MyPlate/ and scroll down to MyPlate Worksheets.

Chapter 2 Healthy Decisions for Living Well

Introduction

In this chapter, youth learn that many different factors affect body weight. They learn that exercise and proper nutrition can help maintain a healthy body. Youth also learn that some factors affecting body weight may be difficult to change.

Body image is a concern among youth, particularly in the middle school and teen years. In several activities, youth will discuss popular views about "ideal" body types and whether they represent realistic or healthy goals. Youth will learn how many calories are burned during exercise and how to balance caloric intake with energy output.

Youth will learn that it is helpful to set small, realistic goals when trying to make changes in their diet or exercise habits. They will learn how many calories are in fats, proteins and carbohydrates, and then examine food labels to see how many calories are in their typical snacks.

Lesson Summary

1.	Body Image: Healthy Comes in Lots of Sizes	Fitness
2.	Calories In and Calories Out	Nutrition
3.	Do You See What I See?	Fitness

Lesson 1: Body Image

Healthy Comes in Lots of Sizes

PREPARATION

🕒 1-2 minutes

SET UP

Before lesson begins, display the *Everyone is Different, So What is Normal?* poster on the wall.

SUPPLIES

- ❑ Tape
- ❑ Small stuffed beanbag or ball
- ❑ *Everyone is Different, So What is Normal?* poster RL

HANDOUTS & BOOKS

Helping Terry A
p. 224

Outcomes (Middle School • Teen)

The purpose of this lesson is to have youth:

- Examine ideas and stereotypes about body size
- Understand that many factors affect body weight
- Understand that healthy eating habits, regular physical activity, and less screen time can help keep a body healthy
- Participate in a goal setting activity

Discussion

DO (Middle School • Teen) 🕒 10-15 minutes

Show youth the *Everyone is Different, So What is Normal?* poster. Introduce a discussion of the factors that affect body size and weight. If youth do not mention the ideas below, suggest some of these examples.

- **Heredity** - Our genes determine many things about our bodies including color of skin, eyes and hair; height, and body frame.
- **Eating habits** - Youth may overeat or eat poorly for a variety of reasons including: responding to stressful situations, lack of time, limited access to healthy foods or peer pressure. This may lead to frequent consumption of fast food or other high-fat or high-calorie foods instead of regular, balanced, meals.
- **Activity habits** – Youth have many demands on their time and must often make choices between participation in physical activities, such as exercise and team sports, or spending their free time in front of a screen or doing other sedentary activities.

? Ask: How do you choose what to eat? How do you spend your free time?

? Ask: Now that we've taken a look at the different body types represented in this poster, do you think all the body types are "normal?"

Lesson 1: Body Image

? Ask: What specific personal factors are attributable to genetics (your family), versus personal habits or environment? Remind youth that they have control over some factors affecting their weight such as eating habits and physical activity patterns.

? Ask: How does our culture influence our ideas about body image? Are there different desirable body images related to our family background or ethnicity? Do we have different ideas about how some groups should look based on their occupations? How about athletes, models, body builders, doctors, musicians and others?

? Ask: Do you think that an athlete or a fashion model has a body that an average person can attain? Why or why not?

? Ask: How do models, rock stars and other "public" people keep their bodies "in shape?" Do models and film stars look the same in real life as they do in magazines and movies?

? Ask: Does being thin mean being healthy? Why or why not?

Review the discussion, emphasizing that youth DO have some control over what and how much they eat, and how physically active they are. Stress that it is important to remember that there are many reasons to eat healthfully and be active. Maintaining and/or losing weight is just one of them. What are some other reasons? One step to maintaining a healthy weight may be setting realistic goals. Setting these and other healthy lifestyle goals can be the first step to a healthier life!

Activity 1 – Goal Setting

DO (Middle School • Teen) 20-25 minutes

Before beginning, have the youth sit in a large circle while the instructor explains how the activity will work. The instructor holds the beanbag and chooses a youth who reads the scenario from the *Helping Terry* handout. The other participants will make suggestions about how to help the person in the story. Tell youth that only the person with the beanbag may speak. The beanbag will be thrown to each person in turn.

To start the discussion, the instructor might say: "One realistic goal Terry can make is to include at least one vegetable when she is helping prepare dinner."

The instructor then throws the beanbag to one of the youths in the

Lesson 1: Body Image

circle, who then makes another suggestion. The activity continues until each youth has offered at least one suggestion or goal for Terry.

Instructor note: If someone suggests that Terry set a goal that is not very realistic, such as joining an expensive gym, do not be critical, but ask for a more realistic alternative. Say, for example, "Suppose Terry couldn't afford a membership to a gym, what could she do instead?" A sample answer might be: "Check out exercise DVD's from the public library." Question the group in this way to help them determine if their suggestions are realistic.

Emphasize that real change happens slowly. To make lasting changes, Terry needs to take "baby steps." A sudden drastic change in diet and physical activity level for Terry and her family will probably not be successful.

REFLECT (Middle School • Teen)
? Ask: What is a healthy body image?

? Ask: Can you name some cultural differences in how people define the "perfect" body?

? Ask: Do you think that things like historical trends, technology, climate, or fashion influences our ideas about the "ideal" body?

? Ask: How do the bodies of athletes today differ from athletes 25 years ago?

? Ask: Are the expectations for females different than males when it comes to healthy body image?

APPLY (Middle School • Teen)
Ask youth to set one small goal for improving their health. Ask for volunteers to share their goal if they wish to. Sharing their goal should be strictly voluntary – no pressure.

Technology Challenge

(Middle School • Teen)

Challenge one of your friends or family members to a *"BETCHACAN'T"* activity at http://www.kidnetic.com.

Go to http://www.kidnetic.com to complete the fitness challenge. See if your friends can match or beat your results! Or, participate in a fun scavenger hunt with your friends and get active at the

Lesson 1: Body Image

same time.

Do you know what a BMI is? Find out how to calculate your BMI. If you would like to learn about the Body Mass Index tool, what it means and how to use it, plus lots of other great information about teen health issues, go to http://teenshealth.org/teen/ and click on "Food and Fitness." Then select *Healthy Weight,* and then *Body Mass Index.* You can calculate your BMI on a special chart just for people under 20 years old. You can also learn more about how genes, puberty and growth affect a person's weight and height on this site. You will also find suggestions for taking steps toward a healthier you!

Lesson 2: Calories In - Calories Out

When Your Balancing Act Is Out of Whack

PREPARATION

30 minutes

SET UP

- ❑ See Set Up Details
- ❑ Place food models or real food samples in the discussion area
- ❑ Have youth sit in semi-circle
- ❑ Set out snacks
- ❑ Create four aerobic activity stations
- ❑ Review the Activity: *How Many Calories Are In A Snack?*

SUPPLIES

- ❑ See Set Up Details
- ❑ Dairy Council food model pictures or real food samples
- ❑ Snacks with food labels
- ❑ Aerobic station equipment: basketballs, jump ropes, aerobic dance DVD, hacky sacks
- ❑ TV with DVD player
- ❑ Stopwatches
- ❑ Masking tape to mark off activity stations

Outcomes (School Age)

The purpose of this lesson is to have youth:

- Understand that food supplies the energy that we need for daily activities
- Look at differences between high-and low-calorie foods
- Understand how physical activity, type of food, and quantity of food are all related to weight gain/loss
- Discover that individual calorie needs are different for everyone
- Read a food label and discuss the contents of a snack food
- Participate in a "calorie-burning" activity

Instructor Essential Information

The duration and intensity of the exercises in this lesson may need to be adjusted to accommodate different fitness levels of the youth. For example, continuous jumping is very difficult, particularly for children who are not in good shape. Explain to them that they may not be able to jump rope continuously for 20 minutes. This may be something they have to work up to, and that they should take short rests when they are tired. You may wish to have younger children shorten the time at each station and have them rotate through the stations twice.

The instructor should always provide water breaks during these activities. The breaks should be more frequent in warm weather.

SET UP DETAILS

Instructors will need the following for this lesson:

- Food models - This lesson requires food models or real food samples such as potato chip bags, fast food wrappers, yogurt and milk containers, soda bottles, etc.
- Snacks – Lay out snacks on a table or in a basket near the discussion area. Be sure to have one small bag or snack for each child. The snacks need to have clearly marked food labels. Examples are: potato chips, pretzels, small candy bars, granola bars, etc.
- Aerobic Stations – Set up four stations around the room that will allow youth to perform aerobic exercise. Obtain any equipment needed for these exercises. Examples: jump ropes, basketballs/basketball hoop, hacky sacks, or dance DVD produced for youth, such as hip-hop, Zumba or

Lesson 2: Calories In - Calories Out

salsa.

- Calories Burned During Exercise – Make one copy per youth of the handout: *Calories Burned During One Hour Of Exercise*.

Discussion

DO (School Age) 15 minutes

? Ask: What is a calorie? Explain that a calorie is a unit of measurement that scientists use to describe how much energy is contained in foods. Different kinds of foods contain different amounts of energy (calories).

Hold up a variety of food models and have students guess if foods are high or low in calories. Ask the children to give examples of some high-calorie foods. Examples: ice cream, whole milk, cheeseburger with bacon, potato chips, French fries, cake.

Discuss foods lower in calories and use food models to illustrate examples such as: low-fat yogurt, low-fat or fat-free milk, small hamburger, pretzels, fruit, popcorn, and vegetables.

Explain to the children that a well-balanced diet must include food from all food groups and should be high in fruits, vegetables, whole grains, low-fat dairy, and lean sources of protein such as beans, poultry and fish. These kinds of foods contain the nutrients necessary for growing healthy bodies and are lower in calories than some other food choices.

Emphasize that there are calories in all the foods we eat and these calories provide the energy we need to work, play and think. Make it clear to the children that they should not be too concerned about counting calories in foods. It is more important to remember that all children grow at different rates and require different amounts of calories.

We only need to worry about calories when our balancing act gets out of whack. By that we mean eating too many high-calorie foods such as sweets and fast food instead of healthy food, and not getting enough exercise to burn off the excess calories we eat.

? Ask: Why do some foods have more calories than others? For example, why does a steak contain more calories than a piece of grilled skinless chicken? Explain that steak is higher in calories than

Lesson 2: Calories In - Calories Out

baked or grilled skinless chicken, or fish, because it has more fat.

Fat contains a lot of calories. Foods with less fat contain fewer calories. Emphasize that some fat is necessary for bodily functions, particularly during growth periods, but most Americans get too much fat in their diets. This results in too many calories, which leads to weight gain.

? Ask: Do you know which other kinds of foods are high in calories? Explain that foods high in sugar such as soft drinks, sweets, etc. also provide an excess number of calories in most American diets.

? Ask: What do you think it means when we say your calorie balancing act is "out of whack?" Explain that healthy bodies need a balance between what they eat (calories in) and how much they exercise (calories out). If there is an excess of calories taken in, those calories will be stored as body fat.

Finally, stress to the children that counting calories is never advisable for growing children and teenagers. However, they need to be aware that good health is a balancing act; the calories that go into their bodies have to be in balance with their physical activity levels.

HANDOUTS & BOOKS
Calories Burned During One Hour Of Exercise A
p. 225

Activity 1 - How Many Calories In A Snack?

DO (School Age) 20 - 25 minutes

Divide youth into four groups by birthdays:

- Group 1 January - March birthdays
- Group 2 April - June birthdays
- Group 3 July - September birthdays
- Group 4 October - December birthdays

Have each child choose a snack that they like from the snack selection. Encourage them to eat the snack if they choose. Tell them to save the wrappers for later.

? Ask: How many calories were in the snacks that you just ate? Have them check the food labels.

Send each group to an aerobic activity station. Make sure that each member is an active participant in the activity. Tell youth that they are performing an experiment to see how long and how hard they have to exercise to "work off" their snack. Have each group do their activity for approximately 20 minutes. Circulate among the

Lesson 2: Calories In - Calories Out

groups to ensure that everyone is active.

- **Basketball Activity Station** - Make sure that each youth has a basketball. The goal of this activity is to keep youth moving. Some youth will have more advanced skills than others so stress to youth that the point of this activity is simply to keep moving.
  - Basketball Drill 1 Using a predetermined line, have all youth begin walking while dribbling their basketballs to the line. Once at the line, have them return to the beginning. Repeat, having youth run to the line while dribbling and return to the beginning.
  - Basketball Drill 2 Using the same turnaround line as in Drill 1, have youth dribble half way to the line and then chest pass the ball to one of the other group members. Everyone passes their ball to another member. Youth continue dribbling to the turnaround line and back to the beginning.
  - Basketball Drill 3 Everyone in the group plays a basketball game. Have the group divide into 2 smaller groups. Each of the smaller groups gets one basketball. Make sure that youth with more advanced skills are evenly distributed between the groups. The object of the game is to have all group members touch the ball, dribble twice, and pass the ball to a teammate before a shot is taken. No points are scored until everyone has touched and dribbled the ball before shooting.

- **Jump Rope Activity Station** - Have youth position themselves around the room to allow for plenty of space for individual jump-roping activities. The point of this activity is to keep youth continuously active for at least 20 minutes. Encourage them to jump however they can as long as they are moving.

  - Jump Rope Drill 1 Have youth begin jumping rope and challenge them to remain jumping for one minute without stopping. After they have completed one minute, have them take a short one-minute rest.
  - Jump Rope Drill 2 Next, ask them to try to jump rope for two minutes without stopping. After two minutes of continuous jumping, have them take a short rest of one to two minutes.
  - Jump Rope Drill 3 After youth have jumped individually for as long as they can, have them lay a long rope across the floor and ask them to jump from one side of the rope to the other.

Lesson 2: Calories In - Calories Out

They will be jumping back and forth while moving forward until they have reached the end of the rope.

- Jump Rope Drill 4 Arrange two long ropes parallel to each other about two feet apart and have youth jump between and back and forth across the ropes from one end to the other.
- Jump Rope Drill 5 Continue to arrange the jump ropes in different patterns on the floor and have the youth jump back and forth between the ropes.

- **Dance Activity** – Set up a television with a DVD player and a dance DVD. Make sure youth have plenty of space for dancing. Have youth follow the instructions given by the dance instructor. If some youth find the dance moves too difficult to follow, encourage youth to move in any way they like (jump, skip, hop in place, move their arms).

- **Hacky Sack Activity** - Have youth form a small circle. Ask for a volunteer to begin moving the hacky sack around the circle. The object of this activity is to move the hacky sack around the group using a pre-designated body part without allowing the hacky sack to touch the floor. After everyone has touched the hacky sack using that body part, have them start with a new body part. For example, start moving the hacky sack using the knee. Have the first volunteer move the hacky sack to another youth using his/her knee. After everyone has "thrown" the hacky sack with their knee, switch to head, shoulder, elbow, etc.

When finished with all activities, have youth return to the middle of the room for a discussion. Have them bring the wrappers from the food they ate earlier. Give the group several copies of the handout *Calories Burned During One Hour Of Exercise*. Tell them to find the table that corresponds to their own weight and spend a few minutes looking at the calories burned for different activities.

REFLECT (School Age)

? Ask: Which group burned the most calories? Why? Which group burned the fewest calories? Why? Do you think you burned off the snack you ate earlier?

? Ask: Which activities burn the most calories in an hour? Which ones burn the least? Are you surprised by any of these numbers?

? Ask: Who can estimate how long it would take to burn off the 760 calories from a Burger King Cheese Whopper®?

Lesson 2: Calories In - Calories Out

PREPARATION

15 minutes

SET UP

See Set Up Details.

- ❑ Place Dairy Council food model pictures or food samples in discussion area
- ❑ Have youth sit in semi-circle
- ❑ Place snacks near lesson area
- ❑ Create four aerobic activity stations
- ❑ Review *How Many Calories Are In A Snack? A*ctivity

SUPPLIES

- ❑ See Set Up Details
- ❑ Food models or real food samples
- ❑ Snacks with food labels
- ❑ Aerobic station equipment: basketballs, jump ropes, aerobic dance DVD, hacky sacks
- ❑ TV with DVD player
- ❑ Stopwatches
- ❑ Masking tape to mark off activity stations

HANDOUTS & BOOKS

Calories Burned During One Hour Of Exercise A
p. 225

Emphasize that fat and calories are necessary for growing bodies. However, too much of either can cause excess weight gain and increases your risk for chronic diseases. The amount of calories needed in a day is different for everyone and depends upon age, activity level, and gender.

APPLY (School Age)
Ask the children to keep a log of the different kinds of exercise they get during a one-week period. Emphasize that they should spend about one hour each day doing physical things they enjoy such as riding their bikes, playing soccer or playing outside with their friends.

Outcomes (Middle School • Teen)

The purpose of this lesson is to have youth:

- Describe how a calorie is used by the body
- Describe the differences between high-and low-calorie foods
- Understand how physical activity, type of food, and quantity of food are all related to weight gain/loss
- Discover that individual calorie needs are different for everyone
- Look at how budgeting food and activity can help maintain a healthy weight
- Participate in a calorie-burning activity

Instructor Essential Information

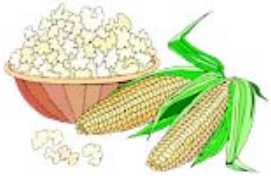
SET UP DETAILS

See Set Up Details for this lesson for School Age on page 70.

Discussion

DO (Middle School • Teen) 10-20 minutes

? Ask: What is a calorie? Explain that a calorie is a unit of measurement that scientists use to describe how much energy is contained in foods. Different kinds of foods contain different amounts of energy (calories).



Hold up a variety of food models and have students guess if foods are high or low in calories. Ask youth to give examples of some high-calorie foods. Examples: ice cream, whole milk, a double cheeseburger with bacon, potato chips, French fries, cake. Discuss foods lower in

Lesson 2: Calories In - Calories Out

calories and use food models to illustrate examples. Examples: low-fat yogurt, low-fat or fat-free milk, a single hamburger, pretzels, fruit, popcorn, vegetables.

Explain to youth that a well-balanced diet should include food from all food groups and should be high in fruits, vegetables, whole grains, low-fat dairy, and lean sources of protein such as beans, poultry and fish. These foods contain lots of nutrients necessary for normal growth and are lower in calories than some other food choices.

? Ask: Why do some foods have more calories than others? For example, why does a rib-eye steak contain more calories than a piece of grilled skinless chicken? Explain to youth that the reason some foods, like steaks, are high in calories is because they contain a lot of saturated fat. Fat contains more calories per gram than either carbohydrates or proteins. In other words, if you were to eat one gram of pure fat, you would get more than twice as many calories as you would from one gram of pure protein or pure carbohydrate. Explain that whenever you are eating a high-fat food, such as steak, a smaller portion is the wiser, healthier choice.

CALORIES IN ONE GRAM OF:
Fat = 9 calories
Carbohydrate = 4 calories
Protein = 4 calories

Emphasize that some fat is necessary for bodily functions, particularly during growth periods, but most Americans get too much fat in their diets. This results in too many calories and leads to weight gain.

? Ask: Do you know which other kinds of foods are high in calories? Explain that foods high in sugar, such as soft drinks, sweets, etc., also provide an excessive number of calories in many American diets.

? Ask: What do we mean by "calories in should equal calories out?" Tell youth that there needs to be a balance between what they eat (calories in) and how much they exercise (calories out). When there is an excess of calories taken in, those calories will be stored as body fat.

Stress to youth that counting calories is never advisable for growing children or teenagers, and that eating for good health is always a balancing act.

? Ask: How can you “budget” your calories and still enjoy your favorite foods? Examples:

Lesson 2: Calories In - Calories Out

- When you go out for pizza with friends, you may want to skip that second or third piece of pepperoni pizza, and have a fresh salad instead.
- If you are going out to your favorite steak house for dinner, have a lighter lunch that day, such as a grilled chicken sandwich, apple, and a glass of low-fat milk. Then at dinner, order the smallest steak on the menu.

Have the group brainstorm other situations where they might "budget" their calories.

Activity 1 - How Many Calories Are In A Snack?

DO (Middle School • Teen) 20 - 25 minutes

See Activity 1 in this lesson for School Age children on page 72.

REFLECT (Middle School • Teen)

? Ask: Which group burned the most calories? Why? Which group burned the fewest calories? Why? Have youth calculate the approximate number of calories they burned using the *Calories Burned During One Hour Of Exercise* handout. Did they burn off the snack they ate earlier? If not, how long would it take them to burn those calories?

Calculate how long it would take you to burn off the 760 calories from a Burger King Cheese Whopper® if you were doing the activity you just did with your group.

Instructor's Note: Emphasize that fat and calories are necessary for growing bodies, but too much of either can cause excess weight gain and increase risk for chronic diseases. Calorie amounts are different for everyone and depend upon age, activity level and gender.

APPLY (Middle School • Teen)

Ask youth to estimate the number of calories they are getting every day from snack foods. Have them estimate how much activity is necessary per day to burn off these extra calories through exercise.

Ask youth to keep track of their activities and calories for one week to determine if their "calories in" are equal to, less than, or more than, their "calories out."

Lesson 2: Calories In - Calories Out

Technology Challenge

(Middle School • Teen)

Go to http://www.choosemyplate.gov and click on "Physical Activity" at the top of the page and learn how much physical activity you need. You will also find tips for increasing physical activity to feel good and be healthy!

Resources

- Calories Burned During Exercise http://www.shapefit.com/calories.html
- http://teamnutrition.usda.gov/Resources/eatsmartactivitysheets.html

Lesson 3: Do You See What I See?

PREPARATION

5 minutes

SET UP

- ❑ Hang self-stick easel paper on easel or walls
- ❑ Set up CD player
- ❑ Have youth sit in semi-circle around posters

SUPPLIES

- ❑ Poster paper
- ❑ A variety of upbeat and relaxing music
- ❑ Tape or easels
- ❑ Magazines with pictures of people
- ❑ Glue and scissors for each child
- ❑ Different colors of construction paper
- ❑ Fine line markers
- ❑ Balls, hula-hoops, jump ropes
- ❑ Variety of items to be used as weights such as food cans (14-16 oz.), peanut butter, beanbags, etc.

HANDOUTS & BOOKS

- ❑ *Famous Person Body Chart* A p. 233
- ❑ *Eating Disorders Fact Sheet* A p. *234*

Outcomes (School Age)

The purpose of this lesson is to have the children:

- Recognize that people come in all shapes and sizes
- Understand that people of different weights and sizes can be healthy
- Learn that people can be too thin as well as too heavy for optimum health
- Recognize that culture and family can be an important determinant for size
- Understand that the images we see on TV, and in movies, etc. are not always healthy

Instructor Essential Information

Today, children as young as eight years old are being diagnosed with eating disorders including anorexia, unhealthy dieting, and binge eating. It is imperative that children understand at an early age that people come in many shapes and sizes and should be appreciated and accepted, just as we appreciate differences in race, religion, gender, etc. Wanting to be really thin can become an emotional disorder that may require professional help to overcome.

Discussion

DO (School Age) 15 minutes

? Ask: Have you ever known someone who was teased about their size or other physical characteristics? Has anyone ever teased you about your looks? Have you ever teased someone else about how they look? The latter two questions will only be answered if you have established a safe environment for the youth in the group. Give children time to think about whether or not they want to respond and do not pressure anyone to answer.

? Ask: How do you think the person being teased feels? Why do you think people tease other people?

Remind children that there are many different body types and sizes and each one can be healthy.

? Ask: How do you know if you are at a healthy weight? Let children discuss this without making any judgments about their responses. Some possible answers might include:

- It is easy to play physical games and I don't tire easily

Lesson 3: Do You See What I See?

- People comment on my size or level of activity, energy, etc. (family or friends)

Remind children that regardless of their weight, everyone should exercise and eat healthy foods to be fit. Stress the importance of physical activity and its relationship to maintaining a healthy weight and the need to be aerobically active at least one hour every day (see Chapter 1).

Activity 1 - What Does Attractive Mean To You?

DO (School Age) 45 minutes

Give each child a piece of colored construction paper of their choice, glue and scissors. Ask them to cut out pictures of different people from magazines (i.e., athletes, movie personalities, teens, politicians, etc.). Tell them to select 3-5 different "body types" and glue these pictures onto their paper. You might want to give them suggestions such as muscular, athletic-looking, short, etc.

Ask the children to write two to three words under each picture describing the person such as busy, sleepy, happy, healthy, etc.

Divide children into small groups and ask them to share their pictures and explain how the words describe the person.

Instructor Note: Ideally, the children will have a variety of body types represented by their pictures. Lead them through a discussion of why they think certain physical characteristics make people appear healthier than others. Remind them that "model" thin is not necessarily healthy, nor is a heavier person automatically unhealthy.

Activity 2 - Freeform Physical Activity

DO (School Age) 30 minutes

Put on fast-paced, energetic music. Offer a variety of equipment to use such as balls, hula-hoops, light weights, etc.

Ask children to use the equipment to have fun, either individually or with others while demonstrating a physical activity that they enjoy and think is good aerobic exercise. Have them continue for at least 15-20 minutes. Possible activities might be a pick-up game of soccer or basketball, dancing, or any other activity that elevates their heart rates.

Lesson 3: Do You See What I See?

After at least 15 minutes, change the music to something with a slower beat that is quieter and calmer. Ask the group to select movements (with or without equipment) that would provide good exercise for flexibility and stretching.

REFLECT (School Age)

? Ask: Think about some well-known people you admire. Do you think any of them are too fat, too thin, or "just right?"

? Ask: Why do you think many musicians and actors are very thin, and athletes in some sports are very heavy? What about animated and fantasy characters on movies and TV? Are these reasonable body images?

APPLY (School Age)

Ask children to pay attention to the body shapes and sizes of their favorite TV and movie characters. Ask them to keep track of their observations using the handout: *Famous Person Body Chart*. Also, ask them to track the TV or movie favorites of their older siblings or other family member and discuss with these family members what their impressions of body shapes and sizes are, especially related to good health.

Lesson 3: Do You See What I See?

PREPARATION

5 minutes

SET UP

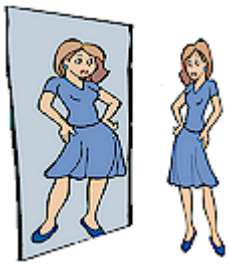
- ❑ Hang flip chart or poster paper on walls or attach to easels
- ❑ Cut out the rulers from *Measure Your Frame Size Ruler* A

SUPPLIES

- ❑ Flip chart or poster paper
- ❑ Markers
- ❑ Tape or easels
- ❑ 8-inch paper rulers

HANDOUTS & BOOKS

- ❑ *Eating Disorders Fact Sheet* A p. *234*
- ❑ *Measure Your Frame Size Ruler* A p. 236



Outcomes (Middle School)

The purpose of this lesson is to have youth:

- Understand that people are born with body characteristics that they can't change, such as bone size, skin color, height, etc.
- Understand that fashion models weigh approximately 15-25% less than is considered a safe and healthy weight
- Recognize warning signs of eating disorders and know what to do if they are concerned about a friend, relative or even themselves
- Understand why binging and purging is unhealthy and dangerous

Instructor Essential Information

SET UP DETAILS

Make several eight-inch paper rulers to be used for measuring wrists by cutting out the rulers in the handout: *Measure Your Frame Size Ruler.*

Today, youth as young as eight years old are being diagnosed with eating disorders including anorexia, bulimia and binge eating. As they move into middle school, appearance becomes more important and youth begin to experiment with ways to alter physical characteristics they don't like about themselves. It is imperative that youth at this age understand that striving to be really thin can be, or can lead to, an emotional disorder. Stress that professional help is available. Anorexia progressively damages the body and causes more deaths among females ages 15-24 than all other causes combined.

Emphasize to youth that this is the time when they will experience their fastest growth spurt since infancy. They may go through periods where they don't like their looks and need to understand that they will continue to change for several more years. Remind them that what they don't like about themselves today may be different in six months.

Discussion

DO (Middle School) 15-20 minutes

? Ask: What is bulimia? Anorexia? Binge eating? Use the *Eating Disorders Fact Sheet* handout as a reference for this discussion.

Lesson 3: Do You See What I See?

Have youth list the characteristics of these disorders on flip chart or poster paper taped to wall. Ask them to explain the differences among these three eating disorders.

On a clean piece of flip chart paper, have youth list behaviors that may indicate an eating disorder. Some answers might include:

- Frequently saying they are fat
- Frequently going to the bathroom during or after meals (may indicate bulimia)
- Playing with food
- Excessive exercise
- Extreme dieting and fasting
- Eating huge amounts of food at one sitting, often junk food

Distribute the eight-inch paper rulers that will be used to measure the youth's wrist to determine frame size. Be sure that youth understand that these measurements are for those who have reached puberty and have started their adult growth spurt. After youth measure their wrists, give them the following guidelines to determine their frame sizes:

- **Small frame** - less than 6 inches for males and females
- **Medium frame** - 6 to 6 ½ inches for female, 6 to 7 inches for males
- **Large frame** - greater than 6 ½ inches for females, greater than 7 inches for males

Explain that frame does not determine how tall you will be or the amount of muscle that you can develop. For example, tall people can have small or medium frames and short people can have large frames. Point out that some sports attract those with certain body characteristics: gymnasts are often very small; many football players tend to be quite large, but may still have only a medium frame; basketball players are usually tall, but may have any frame size. However, there are exceptions. For example, short people can be good basketball players and tall people may be excellent gymnasts, etc.

Discuss famous athletes, both male and female, and have the youth guess what frame size they might have. For example, Apolo Ohno (speed skater) is probably small-framed; Chris Paul (basketball) medium-framed; Cam Newton, (football) large-framed; Serena Williams (tennis), medium- or large- framed; Abby Wambach (soccer), large-framed. Others?

Lesson 3: Do You See What I See?

Discuss the impact of media figures, especially celebrities and fashion models, on the popular perception of what is considered to be a desirable body type. Point out that 20 years ago, models were approximately 10% thinner than the average person of a desirable weight. Today, models are 25% thinner than is thought to be healthy.

REFLECT (Middle School)

? Ask: Without telling us any names, can you share any experiences regarding friends or relatives who may have unhealthy attitudes about eating or body type?

Instructor note: You might want to share an experience of someone you know to get the discussion started and set a comfortable tone for the conversation.

? Ask: What actions could you take if you knew or suspected that someone had an eating disorder? Possible answers: Talk with a school nurse, school counselor, parents, or a doctor.

APPLY (Middle School)

Have youth make a chart to post on the mirror they most frequently use at home. The chart can have two columns, one with a plus sign and one with a minus sign. Have youth tape a pencil to the chart. Every time they look in the mirror and think something negative about themselves, they should make a mark under the minus sign. When they have a positive thought, they should check under the plus sign. Emphasize that they should be focusing on internal characteristics, such as sense of humor or being a good friend, instead of on appearances.

At the end of the week, if they have more minuses than pluses, they should PURPOSEFULLY look for positives in themselves in the mirror and add plus signs for all the positives they can think of. If they have more pluses than minuses, they are doing a good job of liking themselves! Ask them to continue this activity for several weeks.

Over the next few weeks, it is important for the facilitator to check in with the youth and suggest positive characteristics they observe in them.

Lesson 3: Do You See What I See?

PREPARATION

5 minutes

SET UP

- ❑ Hang flip chart or poster paper on walls or attach to easels
- ❑ Get out paper rulers

SUPPLIES

- ❑ Flip chart or poster paper
- ❑ Markers
- ❑ Tape or easels
- ❑ 8-inch paper rulers

HANDOUTS & BOOKS

- ❑ *Eating Disorders Fact Sheet* A p. *234*
- ❑ *Measure Your Frame Size Ruler* A p. 236

Outcomes (Teen)

The purpose of this lesson is to have youth:

- Understand that fashion models (both male and female) weigh approximately 15-25% less than is considered a safe weight
- Understand that diet pills are dangerous
- Recognize the warning signs of eating disorders and know what to do if they are concerned about a friend or relative (or self)
- Understand why binging and purging is an unhealthy weight management tactic
- Realize that body size and shape are partially determined by genetics (body frame) and not just what people eat or how much they exercise

Instructor Essential Information

SET UP DETAILS

See Middle School Set Up Details on page 82.

Discussion

DO (Teen) 15 minutes

? Ask: Can you define bulimia? Anorexia? Binge eating? Use the *Eating Disorders Fact Sheet* handout for reference. Have the youth list characteristics of these disorders on poster paper taped to wall. Ask youth to clarify the differences among the three types of eating disorders.

Working as a group, have youth list the consequences of eating disorders. Use the *Eating Disorders Fact Sheet* for discussion. Some possible answers might include:

- Brittle hair and nails
- Internal organ damage as body nourishes itself by first using fat, then muscle, then organs
- Poor performance in school and sports due to insufficient amounts of nutrients needed for optimum mind and body function
- Often feel cold
- Bones weak and break easily
- Skin dry and easily bruises; may develop fine layer of new hair for insulation (lanugo)

Lesson 3: Do You See What I See?

On a third sheet of paper, have youth list associated behaviors that may indicate an eating disorder. See the *Eating Disorders Fact Sheet* handout for discussion. Some answers might include:

- Frequently saying they are fat
- Frequently going to the bathroom during or after meals (may indicate bulimia)
- Playing with food
- Excessive exercise
- Extreme dieting and fasting
- Eating huge amounts of food at one sitting, often junk food

Discuss the impact of media figures, especially celebrities and models, on the public perception of what is considered to be a desirable body type. Point out that models used to be approximately 10% thinner than the average person. Today, models are 25% thinner than a healthy weight.

Explain that some athletes and other public figures have been known to use diet pills and other medications to lose weight. Emphasize that there are short- and long-term side effects from using these medications.

These side effects can occur even when used according to the label. They include:

- Headaches
- High blood pressure
- Heart palpitations, dizziness
- Anxiety, nervousness, restlessness, insomnia
- Depression, fatigue
- Vomiting, diarrhea, nausea
- Hyperactivity

REFLECT (Teen)
Invite youth to share their experiences about someone they know who frequently uses diet pills or may have had problems with an eating disorder. The youth should not identify who the person is. Ask youth what actions they might take if they know or suspect that someone has an eating disorder or is abusing diet pills.

APPLY (Teen)
Ask teens to observe their favorite musicians and TV characters during the week. Ask them to make a list of those who look healthy and are at a normal weight, as well as those who are overweight or too thin.

Lesson 3: Do You See What I See?

Technology Challenge

(All Ages)

Check out these web sites for information about dieting, fitness, and eating disorders. There are many other articles and resources that can help youth develop a healthy self-concept. Ask youth to research these sites and report back to the group at the next session about what they learned about eating disorders.

(School Age)
http://www.kidshealth.org/kid/feeling/thought/fat_thin.html

(Middle School and Teen)

http://www.caringforkids.cps.ca/handouts/dieting_information_for_teens

Chapter 3 Fueling the Body

Introduction

Chapter three provides an overview of the importance of the essential nutrients for the body. The lessons emphasize the need for whole grains for good health. Youth learn the importance of breakfast and are given several opportunities to prepare and sample healthy breakfasts. Youth learn that snacking can be a good thing when the snack choice is a healthy one.

This chapter introduces youth to different kinds of vegetarian diets. In the Now We're Cookin' activity, youth prepare several vegetarian dishes and discuss some of the issues related to vegetarian diets. Youth have an opportunity to learn about vitamins and steroids. They discuss the pressures that may lead some athletes to abuse these drugs to enhance their performance. Youth sample sports drinks, energy drinks and food bars and discuss their usefulness as they evaluate the value and cost of these quick "energy" foods.

Lesson Summary

1.	Nutrient Knowledge	Nutrition
2.	Break It Up - Breakfast First!	Nutrition
3.	Snack Attack	Nutrition
4.	Vegetarianism In A Nutshell	Nutrition
5.	The Truth About Steroids And Supplements	Fitness
6.	Energy Drinks And Foods	Nutrition

Lesson 1: Nutrient Knowledge

PREPARATION

60 minutes

SET UP

- ❑ Draw an outline of a child on a piece of newsprint or poster paper
- ❑ Prepare food cards
- ❑ Prepare baskets
- ❑ Set up large classroom

SUPPLIES

- ❑ Marker
- ❑ Index cards, food models, or Dairy Council food model pictures RL
- ❑ Two baskets

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Discover the importance of nutrients to a healthy body
- Understand that essential nutrients come from the foods we eat
- Discover that good health requires nutrient dense foods
- Prepare a healthy snack

Instructor Essential Information

The foods you eat supply the nutrients your body needs to build and repair itself and to stay healthy. There are over 40 nutrients. Six of them are called the essential nutrients. These six essential nutrients are carbohydrates, fats, protein, vitamins, minerals, and water. Because no one food contains all the essential nutrients, we say there are no perfect foods. However, many foods provide more than one essential nutrient. That is why, for overall health, we need to eat a variety of foods.

For information on essential nutrients visit http://web.nmsu.edu/~johtaylo/Nutrition1.htm to learn more.

Discussion

DO (All Ages) 10 minutes

? Ask: What does it mean when we say, "You are what you eat and drink?" Think about your body. Squeeze your hand. It feels pretty solid and yet it contains a lot of water.

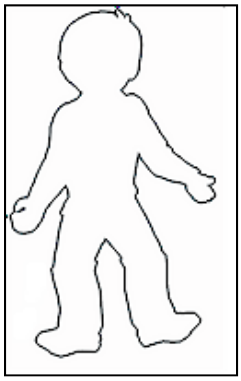
? Ask: Does anyone know what percentage of your body is made of water? Answer: Your body is 55 - 70% water. The rest of your body is made up of carbohydrates, proteins, fat, and minerals. These also are the nutrients found in the food you eat.

? Ask: Why do we need food? Answer: food supplies the energy needed for growth and repair. It keeps your body going!

Remind youth that there are two sources of food: animals and plants.

? Ask: Can you name some examples of foods that come from animals and plants? Possible answers include grains, vegetables, fruits, beans, meat, dairy, and seafood.

Lesson 1: Nutrient Knowledge



Activity 1 – What Do You Eat?

DO (School Age) 45 minutes

Place a large piece of paper on the floor and draw an outline of a child on it. Fill the outline with index cards containing the names of different foods, or pictures of different foods. Have two baskets at the end of the room – one labeled **FOODS FROM PLANTS** and the other **FOODS FROM ANIMALS**.

Divide youth into teams and have them run a relay race. Each youth will select a food card from the outline of the child, run to the baskets, and place it in the appropriate basket.

When the relay is finished, determine whether all the cards have been placed in the right baskets.

REFLECT (School Age)

? Ask: What did you eat for breakfast? Did the foods come from a plant or an animal source?

APPLY (School Age)

At the dinner table tonight, discuss which foods are from plant sources and which are from animal sources.

PREPARATION

30 minutes

SET UP

- ❑ Draw *The Big 6* on flipchart or use copies of *The Big 6* handout. A
- ❑ Collect food labels or make copies of the Macaroni and Cheese label shown in this lesson.

SUPPLIES

- ❑ Flip chart
- ❑ Marker
- ❑ Macaroni and Cheese food label

Discussion

DO (All Ages) 15 minutes

Discuss the six essential nutrients. Refer to *The Big 6* handout.

? Ask: What are the six essential nutrients? Answer: carbohydrates, fat, protein, vitamins, minerals, and water.

- **Carbohydrates** – Carbohydrates are the body's main source of energy. On food labels, the total carbohydrates are listed. This includes dietary fiber, sugars, and other carbohydrates.
- **Fat** – The second source of energy for the body is fat. Fat helps transport nutrients and is a part of body cells.
- **Protein** – Proteins help build, repair, and maintain all body tissues.

Lesson 1: Nutrient Knowledge

or other food labels

HANDOUTS & BOOKS
The Big 6 A p. 238

- **Vitamins & Minerals** – Vitamins boost the immune system and support normal cell growth and development. They also help cells and organs do their jobs.
- **Water** – Water regulates your body temperature, carries nutrients to the cells, and carries waste out of your body.

? Ask: Why are the six essential nutrients important to good health?
Answer: Each nutrient performs a different function to make our body run efficiently. Since no one food contains all the essential nutrients, we need to eat a variety of foods from different food groups to be sure we get all the nutrients we need.

Activity 2 – Macaroni And Cheese Label

HANDOUTS & BOOKS
- ❑ *The Big 6* A p. 238
- ❑ *Sample Label for Macaroni Cheese* A p. 237

DO (School Age • Middle School) 20-30 minutes

For this activity, youth will need these two handouts: *The Big 6*, and *Sample Label for Macaroni Cheese*. Take a look at the *Sample Label for Macaroni Cheese* handout and identify which of the six nutrients are found in this food. Use *The Big 6* handout and record the amounts of each essential nutrient listed on the Macaroni and Cheese label. For School Age children, you might want to enlarge it and use it as a poster for the group discussion.

When checking the water content, review the ingredients list and simply write "yes" or "no" in that section of *The Big 6*. Use this activity to illustrate that foods contain different nutrients.

Activity 3 – Nutrient Scramble

SET UP
- ❑ Put all the Dairy Council food model pictures in the front of the room. Do not use the combination foods such as pizza or a hamburger/bun.
- ❑ Place flip chart and marker some distance from the food models so youth can run from one to the other

DO (School Age) 20 minutes

On the blackboard or flip chart, list the following essential nutrients: fats, carbohydrates, protein, calcium, vitamin C.

Divide the group into two relay teams. Have each youth run to the food model pictures, select one, and run to the flip chart or blackboard to write down the name of that food under a nutrient. The youth runs back to the team with their picture, and the next youth takes his/her turn.

After all the food pictures have been chosen, the teams add up their scores (1 food model = 1 point). Have the group look at the placement of each food item on the flip chart. If it is placed accurately (e.g., chicken is under protein), the team keeps the point

Lesson 1: Nutrient Knowledge

SUPPLIES

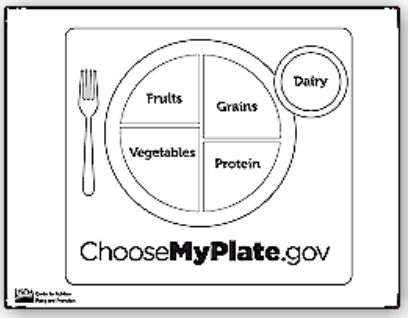
- ❑ Flip chart
- ❑ Marker
- ❑ Dairy Council food model pictures: milk, orange juice, bread, poultry, beans, nuts, eggs, and pasta RL

for that food item. If the food is listed incorrectly (e.g., broccoli is under fats) then the team with that food model loses one point. When the review is finished, the team with the most points wins. Check the back of the Dairy Council food model pictures for nutrient information.

Technology Challenge

(School Age)

Go to http://www.choosemyplate.gov/food-groups/downloads/MyPlate/ColoringSheet.pdf. Once you have downloaded this coloring page, then draw pictures of actual foods that fit in each section of the MyPlate, such as beans in the protein section, spinach in the vegetable section and yogurt in the dairy section. Share your MyPlate with others to see all of the different nutrient rich foods.



Visit the web site: http://www.kidshealth.org. Click on "Kids Site," then click on "Staying Healthy." Scroll down to "Fabulous Food." Listen to the "Food Guide Pyramid Becomes a Plate."

Technology Challenge

(Middle School • Teen)

Divide the group into five small work groups. Visit the site: http://www.choosemyplate.gov/index.html and hold your cursor on MyPlate on the top bar. From there, select grains, protein, vegetables, fruits, or dairy and follow the directions below.

- **Group 1** – Click on "Grains Group." Learn about the two different subgroups of grains and why whole grains are so important.
- **Group 2** – Click on "Vegetable Group." Learn what foods are in the vegetable group and the five sub-groups. List examples of each.
- **Group 3** – Click on "Fruit Group." Describe the health benefits and nutrients of fruit, the variety, how much is needed and tips to help you eat fruits.
- **Group 4** – Click on "Protein Foods Group." Discover why the body needs protein, tips for making wise choices and

Lesson 1: Nutrient Knowledge

more information on beans and peas. Give examples of animal and plant protein sources.

- **Group 5** – Click on "Dairy Group." Find out what foods are included, how much is needed and tips for making wise choices. List the health benefits and the nutrients derived from this food group.

Technology Challenge

(School Age)

Have the youth log onto this web site:
http://kidshealth.org/kid/closet/games/game_nutrition.html#cat122
Play the "Mission Nutrition" game using your nutrition knowledge!

SUPPLIES

See recipe for ingredients and utensils list.

HANDOUTS & BOOKS

Recipe: *MyPlate Salsa* A p. 239

Now We're Cookin' - MyPlate Salsa

(All Ages) 45 minutes

Have youth wash their hands using the *Proper Handwashing* steps on page 25. Prepare *MyPlate Salsa* to illustrate that you need variety to get your "Big 6." Divide the youth into cooking groups. Then divide the recipe into preparation tasks, such as vegetable chopping, opening and draining the can. The recipe is found in Appendix A.

As the youth eat the salsa, have them name the ingredients in the salsa and identify from which food group they come. Don't forget the chips! Then, identify the nutrients in the different ingredients by referencing the food labels and referring back to the MyPlate website.

Technology Challenge

(Teen)

Visit http://web.nmsu.edu/~johtaylo/Nutrition1.htm and learn more about each of the six essential nutrients.

Lesson 2: Break It Up – Breakfast First!

PREPARATION
20 minutes

SET UP
See Set Up Details

SUPPLIES
Cell phone charger

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Discover the importance of starting each day with breakfast
- Demonstrate the ability to select a healthy breakfast
- Prepare quick and easy breakfasts

Instructor Essential Information

Research findings confirm that eating breakfast contributes to good health, improved test scores, and weight management. Youth who skip breakfast are almost twice as likely to be overweight as youth who eat breakfast.

Youth who eat breakfast do better in school. They tend to have better language and problem solving skills. Eating breakfast may also help with memory and creativity. Youth who eat breakfast have better math and reading scores, classroom behavior, and attendance. Breakfast restores the blood sugar levels that drop overnight that are essential for good physical and cognitive performance.

SET UP DETAILS

On the flip chart or poster board, write down the "Benefits of Breakfast" list (shown below). On another page, write the "Reasons Kids Skip Breakfast" list. Keep both lists hidden until the youth have finished the brainstorming process in Activity 1.

Benefits of Breakfast
• Score higher on tests • Have more energy for daily activities • Work faster • More cooperative • Less likely to be tardy to school • Less likely to go to the nurse's office • Have better concentration • More creative • Less likely to be absent • Make fewer errors • Helps prevent colds and flu • Helps with weight management

Reasons Kids Skip Breakfast
• Not hungry in the morning • Don't have time • Want to lose weight • Don't like breakfast • Would rather watch TV • Don't feel like making something • Overslept

Lesson 2: Break It Up – Breakfast First!

Discussion

DO (All Ages) 10 minutes

? Ask: What boosts your physical and mental performance? What keeps your weight in check and improves your diet? What starts your day off right? The answer to these questions is breakfast! Explain that the term breakfast means breaking the fast.

Tell youth: Does anyone know what this is? (Hold up a cell phone charger.) It's a charger for a cell phone. This charger transfers the energy from the electrical outlet to your cell phone battery to recharge it when it runs low.

? Ask: Can you think of another kind of battery that needs charging? Answer: your body. In the morning, the thing that gives you a charge is breakfast.

Explain that breakfast delivers the energy your body needs to get started on your daily routine just like this cell phone charger delivers energy to get the phone battery going again.

? Ask: Has anyone ever heard someone say: Breakfast is the most important meal of the day? Why is that? When you wake up, it has been between 8 and 12 hours since you ate dinner or had a bedtime snack. Imagine waiting that long to eat during the day! Even though you might not think you're doing anything while you sleep, your body is using energy and needs a boost from the nutrients in breakfast foods to think, be alert, and stay active.

? Ask: Which nutrient gives your body energy by replenishing blood sugar levels? Answer: carbohydrates. Our bodies and brains need carbohydrates to function effectively.

? Ask: Can you name other nutrients your breakfast should provide? Answers: protein, fat, vitamins, and minerals.

Lesson 2: Break It Up – Breakfast First!

PREPARATION
20 minutes

SET UP
- ❑ See Set Up Details
- ❑ List on flip chart: Benefits of Breakfast
- ❑ List on flip chart: Reason Kids Skip Breakfast

SUPPLIES
- ❑ Flip chart
- ❑ Marker

Activity 1 – Brainstorming Breakfast

DO (All Ages) 15 minutes

? Ask: Can anyone describe the benefits of eating breakfast? Record youth responses on the flip chart or blackboard. Compare youth responses to the Benefits of Breakfast list.

? Ask: Do you know how many kids skip breakfast in the morning? Answer: almost 1/2. In middle and high school, the percentage is even higher. As students get older, they skip breakfast more often.

? Ask: What are some of the reasons you skip breakfast? Use a flip chart to list the youth's ideas. Compare the youth responses to the Reason Kids Skip Breakfast list.

PREPARATION
5 minutes

SET UP
Make copies of the handout.

SUPPLIES
- ❑ Flip chart paper
- ❑ Markers
- ❑ Tape
- ❑ MyPlate poster

HANDOUTS & BOOKS
Building Better Breakfasts A
p. 240

Activity 2 – Plan A Breakfast

DO (School Age) 30 minutes

Divide youth into groups. Give each group a copy of the *Building Better Breakfasts* handout. Have each group plan at least one breakfast using three different food groups.

When they have finished, write their breakfast ideas on the flipchart. Youth may draw pictures to illustrate their breakfast choices. Post the breakfast ideas around the room.

Have the groups compare their breakfasts with MyPlate to determine if they are meeting recommendations for a healthy meal.

? Ask: Which food groups were represented in your breakfast?

REFLECT (School Age)

? Ask: Did your breakfast have a variety of foods?

? Ask: What are some ways you could add more variety to your breakfast?

APPLY (School Age)

Have each child work with members of their family to plan three easy, nutritious breakfasts that they could fix for themselves before school. Aim for three different food groups in each breakfast menu. Give them each a copy of the *Building Better Breakfasts* handout to take home.

Lesson 2: Break It Up – Breakfast First!

PREPARATION

🕒 45 minutes

SET UP

- ❑ Read the recipes in the handout
- ❑ Set up 4 cooking stations

SUPPLIES

See recipes for ingredients and utensils list.

HANDOUTS & BOOKS

- ❑ Recipe: *Four Fun Breakfasts* A p. 241
- ❑ Recipe: *Banana Split Cereal* A p. 242

Now We're Cookin' - Four Fun Breakfasts

(All Ages) 🕒 45 minutes

Have youth wash their hands using the *Proper Handwashing* steps on page 25. Separate youth into four groups as shown below to prepare the following recipes, which you will find in the handout *Four Fun Breakfasts*.

- Group 1: Fruit and Nut Oatmeal
- Group 2: Breakfast Smoothie
- Group 3: Banana Dogs
- Group 4: Breakfast Taco

Optional: As an alternative cooking adventure, try *Banana Split Cereal*. The recipe is in Appendix A. The recipe takes about 15 minutes to prepare.

REFLECT (All Ages)

? Ask: What are some other quick and easy breakfasts that you could make that combine at least three food groups?

APPLY (All Ages)

Encourage youth to make some of these breakfast ideas at home for themselves and their family members and report the family breakfast favorite back to the group.

Technology Challenge

(School Age)

Visit http://www.fns.usda.gov/tn/Resources/EatSmart/powerupwithbreakfast.pdf and download the Power Up with Breakfast worksheet. Complete the word jumble and use the Smoothie recipe at home.

Other sites:
http://teamnutrition.usda.gov/Resources/eatsmartactivitysheets.html

http://www.webmd.com/diet/features/many-benefits-breakfast

Lesson 3: Snack Attack

PREPARATION

5 minutes

SET UP

Place the MyPlate poster on a wall.

SUPPLIES

- ❑ MyPlate poster RL
- ❑ *Pack Your Snacks and Go* RL
- ❑ *Grab Quick & Easy Snacks* RL

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Learn how to use food labels to make healthy snack choices
- Prepare an easy snack with a variety of foods
- Practice making wise snack choices

Instructor Essential Information

Most youth don't get all the nutrients they need from three meals a day to grow strong and stay healthy. Snacking can be a healthful way to meet nutritional needs. Snacks are a great way to get more fruits, vegetables, whole grains, and low-fat dairy foods into a child's diet. The nutrition facts on food labels can help youth to compare snacks and make healthy choices.

Download the handouts from the websites shown below for use in Activity 1.

- http://teamnutrition.usda.gov/Resources/EatSmart/pack_snacks_sheet.pdf
- http://www.fns.usda.gov/tn/Resources/EatSmart/grabeasysnacks.pdf *(available in English and Spanish)*

Discussion

DO (All Ages) 15-20 minutes

? Ask: What are your favorite snacks? Explain that growing youth need more nutrients than some adults. Snacking can help meet those nutrient needs when you choose low-fat, nutrient dense foods. Nutrient dense foods are foods that are low in calories, but high in nutritional value.

? Ask: Do you think snacking is a good idea? Why or why not?

? Ask: Can you name some snacks that you think are nutrient dense? Stress that regardless of age, snacks can fill in the nutrient gaps. Some people eat three nutritiously complete meals while others, especially small children, may need to complement their meals with healthy snacks. Make your snacks count toward your food group needs.

Display the MyPlate poster. Go through each food group and ask the youth to name some healthy snacks from that group.

Lesson 3: Snack Attack

PREPARATION

🕒 15 minutes

SET UP

- ❑ Place the MyPlate poster on a wall.
- ❑ Make copies of the handouts.

SUPPLIES

- ❑ MyPlate poster RL
- ❑ Three signs: GO, SLOW, & WHOA
- ❑ Assorted snacks (pretzels, candy bar, fruit) or Dairy Council food model pictures RL

HANDOUTS & BOOKS

- ❑ *Grab Quick And Easy Snacks* RL
- ❑ *Pack Your Snacks & Go* RL

Activity 1 – Go / Slow / Whoa

DO (All Ages) 🕒 20-30 minutes

Stress the importance of making healthy choices for snacks. Explain that youth will be running a relay race where each one will select a snack from the food models or bag of actual snack foods and sort them into the GO, SLOW, or WHOA categories. Be sure to select snacks that are popular with children. Here are some foods that fall into each of the categories:

- WHOA - Candy bars, potato chips
- SLOW - Chocolate milk, pudding
- GO - Foods such as fruits, vegetables and whole wheat pretzels

Set up a relay race with two bags of snacks and two sets of signs on different tables. Have each team member select a snack then run to the table and put it under the proper sign. The team that has the most snacks in the right categories wins. Discuss as a group which snacks fit into which category. Stress the importance of nutrient dense foods vs. empty calories when categorizing snacks.

APPLY (All Ages)

Give youth one of the handouts – *Grab Quick and Easy Snacks* or *Pack Your Snacks & Go* to use when making snack decisions at home or school.

PREPARATION

🕒 5 minutes

SET UP

Two signs: NUTRIENT DENSE and EMPTY CALORIES

SUPPLIES

Assorted snacks in bags - pretzels, candy bar, fruit, chips

Activity 2 – Check The Snack Label

DO (All Ages) 🕒 20 minutes

Have each youth select a snack. Use actual pre-packaged snacks or food models that have nutrition information on the back. Put a sign labeled **NUTRIENT DENSE** at one end of a table or room. Put a sign labeled **EMPTY CALORIES** at the other end. Have the youth line up with the snacks they chose in a continuum from **NUTRIENT DENSE** snack choice to **EMPTY CALORIES** snack choice. The criteria could be amount of fat, calories, sugar, or nutritive value.

CALORIES IN ONE GRAM OF:
Fat = 9 calories
Carbohydrate = 4 calories
Protein = 4 calories

When they are finished, have the group evaluate their positions in the line. You might have them read the labels and re-align themselves according to the amount of

Lesson 3: Snack Attack

PREPARATION

20 minutes

SET UP

Set out the snacks that each group will test.

SUPPLIES

- ❑ Brown paper towels or brown grocery bags
- ❑ Markers
- ❑ Regular potato chips
- ❑ Pretzels or popcorn
- ❑ Graham crackers
- ❑ Bakery or homemade cookies
- ❑ Candy bar
- ❑ Granola bar
- ❑ Cheese stick
- ❑ Carrot stick

calories per serving, and/or amount of fat or salt or sugar per serving.

REFLECT (All Ages)

? Ask: Were any of you surprised at your position in the snack line-up? Why or why not?

APPLY (All Ages)

At the next session, bring in wrappers from three snacks that you or your family members have eaten during the week. Are these snacks nutrient dense?

Activity 3 – Which Has More Fat?

DO (Middle School • Teen) 20 minutes

? Ask: Why should we care about the amount of fat in our snacks?
Answer: Because per gram, fat is higher in calories than carbohydrates and protein. Saturated fat has been linked to certain chronic diseases. Too much fat in our diets is considered unhealthy. Using actual snacks, youth will discover that fat "hides" in many of their favorite snack foods.

Show the snacks that each group will test (listed below). Ask youth which snack they think has less fat.

- Regular potato chips vs. pretzels or popcorn
- Graham crackers vs. cookies
- Granola bar vs. candy bar
- Cheese stick vs. carrot stick

Youth will perform a quick test for the presence of fat in foods. Divide youth into small groups of 2 to 4. Give each group a pair of snacks to test for fat. Have youth rub each type of snack on a brown paper towel. The snack will leave a grease spot on the towel if it contains a lot of fat. Label the spots left by both types of snacks.

REFLECT (Middle School • Teen)

? Ask: What did you find out? How do the spots differ? What does this tell you? Which snack has more fat?

APPLY (Middle School • Teen)

Repeat this experiment at home with some of your snack choices.

Lesson 3: Snack Attack

PREPARATION
5 minutes

SET UP
Place flip chart in front of room

SUPPLIES
- Flip chart
- Markers

Activity 4 – Snacking Dilemmas

DO (Middle School • Teen) 15 minutes

This activity is designed to give teens practice in deciding which snacks to eat. A snack dilemma is when it is easier to choose an empty calorie snack than one that is better for you.

Record youth answers to the following questions on the flipchart or paper.

? Ask: When do you have snack dilemmas? Possible answers: when running late, at someone else's house, at school, or when there are no healthy choices easily available. Next to each snack dilemma determine possible solutions in that situation.

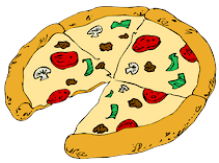
? Ask: Could planning ahead make it easier to have a healthy snack? Which of these dilemmas might be avoided if the person had eaten a good breakfast or lunch?

PREPARATION
30 minutes

SUPPLIES
See recipe for ingredients and utensils list.

HANDOUTS & BOOKS
Recipe: *Pita Pizzas* A

Now We're Cookin' - Pita Pizzas



(All Ages) 45 minutes
Have youth wash their hands using the *Proper Handwashing* steps on page 25.

Divide youth into groups to prepare Pita Pizzas. The recipe is found in Appendix A.

Technology Challenge

(All Ages)

Visit http://www.cspinet.org/nutrition/ and click on "The 10 Foods You Should Never Eat!" Which ones are your favorites? If your choices were in the "Worst Foods" list – what could you substitute as a healthier option?

Go back to http://www.cspinet.org/nutrition/ and under "Kids Stuff," click on "Smart-Mouth.org." From there click on "Enter", then "SNACKTOIDS." Share what you learn with your family.

(Teen)
Go to http://www.cspinet.org/smartmouth/index1.html and click on

Lesson 3: Snack Attack

the "Articles and Recipes" icon at the top of the page. Read the article on "Liquid Candy" and find out:

- Why soda pop is considered "liquid candy."
- How much sugar is in a 20 ounce bottle of soda?
- What changes have occurred in the last 20 years in teenagers' choice of beverages?
- Which beverages are a better choice?

Lesson 4: Vegetarianism In A Nutshell

PREPARATION

5 minutes

SUPPLIES

- ❑ Flip chart or blackboard
- ❑ Marker or chalk

Outcomes (School Age)

The purpose of this lesson is to have youth:

- Learn that there are different types of vegetarians and they eat different kinds of food
- Understand that there are many reasons for becoming vegetarian
- Prepare and sample a vegetarian recipe

Instructor Essential Information

Some people choose to eat a vegetarian diet. They do this for cultural, religious, or health reasons. A vegetarian diet can be a very healthy one. Instead of meat, vegetarians get their protein from plant sources.

Vegetarian types include those who eat food from plants, milk products and eggs, called lacto-ovo vegetarians and vegans, who only eat food from plants.

Everyone needs to eat different kinds of foods to get the nutrients they need to be healthy. In a typical American diet, several important nutrients - iron, zinc, and B vitamins - are largely obtained by eating meat, fish, and poultry. Therefore, those who follow a vegetarian diet need to get these nutrients in another way.

Vegans especially need to pay close attention to whether their daily requirement of vitamin B12 is met because animal products are the only natural food sources of vitamin B12. Vegans must supplement their diets with a source of this vitamin.

Vegans also need to ensure that they get an adequate amount of vitamin D and calcium, which most Americans obtain from milk products. This is particularly important for youth on a vegan diet.

Lesson 4: Vegetarianism In A Nutshell

Discussion

DO (School Age) 20 minutes

? Ask: What did you have for breakfast today? For lunch yesterday? For dinner? Did you have meat at every meal?

? Ask: Do you know what we call people who never eat meat, chicken or fish? Answer: vegetarians.

Write the phrases "vegetarian meal" and "meat-based meal" on the board or flipchart. Ask youth to write under the correct header examples of foods they ate in the last two days that fall under those categories. Example: a bean burrito is a vegetarian meal; a chicken Caesar salad is a meat-based meal.

? Ask: Does anyone know any vegetarians? What do vegetarians eat instead of meat? Possible answers: beans, tofu, grains, cheese (some vegetarians) vegetables and fruits. Explain that there are two kinds of vegetarians: lacto-ovo, and vegans.

? Ask: Can you think of any reasons why someone wouldn't want to eat meat? Possible answers: religious reasons, high saturated fat content in some meat, they don't want to kill animals, they don't like the way livestock are treated, or they don't like the taste.

Explain that following a vegetarian diet can be very healthy but vegetarians need to pay special attention to assure they are getting enough iron, zinc, and B vitamins.

Lesson 4: Vegetarianism In A Nutshell

PREPARATION
30 minutes

SUPPLIES
See recipes for ingredients and utensils list.

HANDOUTS & BOOKS
- Recipe: *Tacos* A p. 245
- Recipe: *Hummus* A p. 245

Now We're Cookin' – Tacos and Hummus

(All Ages) 30 minutes

Have youth wash their hands using the *Proper Handwashing* steps on page 25. Have youth prepare the recipes for *Tacos* and *Hummus*. Recipes can be found in Appendix A.

APPLY (School Age)

Tonight ask your family to think of all the meatless meals they eat. Share your examples with the group next time you meet.

Technology Challenge

(School Age)

Go to http://www.vegkitchen.com and click on "Veg Kids and Teens." Find a delicious recipe under Easy Healthy Recipes for Kids and Teens that your family might enjoy.

PREPARATION
10 minutes

HANDOUTS & BOOKS
- *Losing Meat, But Keeping A Child's Diet Balanced* A p. 246

Outcomes (Middle School • Teen)

The purpose of this lesson is to have youth:

- Understand some of the reasons why people choose to eat a vegetarian diet
- Explore the benefits and challenges of a vegetarian diet for young people
- Prepare and sample a vegetarian recipe

Instructor Essential Information

SET UP DETAILS

See Instructor Essential Information for School Age children. Youth will explore the benefits and challenges of a vegetarian diet for young people by reading and discussing the article in the handout: *Losing Meat, but Keeping a Child's Diet Balanced.* After reading the article, youth will share what they learned about vegetarian eating habits.

Discussion

DO (Middle School • Teen) 35-40 minutes

Give each student a copy of the handout *Losing Meat, but Keeping a Child's Diet Balanced.* After each youth has read the article, have a discussion using these questions:

Lesson 4: Vegetarianism In A Nutshell

- Why are some kids rejecting meat in their diets?
- What changes might a family make to support a vegetarian child?
- What has led to more widespread acceptance of vegetarian diets for children?
- Why do people often choose a vegetarian diet?
- What are the different types of vegetarians?
- Why do some experts consider vegetarian diets to be generally healthier?
- What concerns do some experts have about vegetarian diets for young people?
- What types of concerns do parents have about their children eating vegetarian diets?

Technology Challenge

(Middle School • Teen)

Find a vegetarian website using a search engine such as Google http://www.google.com or Yahoo http://www.yahoo.com. Select a recipe that your family might enjoy. Print it out and try it at home.

APPLY (Middle School • Teen)

Take home the recipe you selected above and make it for your family. Share with the group their reactions to the meatless meal.

Lesson 5: The Truth About Vitamins, Steroids, & Supplements

PREPARATION

10 minutes

SUPPLIES

- ❑ Poster paper
- ❑ Markers
- ❑ Jump ropes, balls, and hula-hoops
- ❑ CD Player
- ❑ A variety of upbeat and relaxing music

Outcomes (School Age)

The purpose of this lesson is to have children:

- Learn that muscles are best developed by exercise and good nutrition
- Understand that we get all of the vitamins and minerals we need from a healthy diet

Instructor Essential Information

Many families automatically give their children a daily vitamin without thinking whether or not it is needed. This lesson will help youth understand that vitamins are usually not necessary.

Research findings on vitamin-mineral supplements indicate that most people do not need supplements if they have a healthy diet. Food is the preferred way to obtain your nutrients because many nutrients are not found in vitamin form. Also, it is possible to consume too much of certain minerals or vitamins.

If youth follow the MyPlate recommendations, they will get all the vitamins and minerals they need without supplements.

STEROIDS

This lesson includes a section about steroids. Although steroids are not a major health concern for elementary-aged children, they are sometimes aware of steroid abuse by professional athletes. For this reason, youth of all ages can benefit from a basic explanation of steroids, and why they are sometimes abused.

You may skip this section, if you feel that this topic is not appropriate for School Age youth. Another part of the lesson focuses on non-competitive fitness activities that build muscles. You may wish to refer back to Chapter 1, Lesson 6: Muscle Mania, for details about circuit training.

Steroids are certainly an important topic for both middle school and high school youth. The two fastest growing groups of new users of steroids (other than professionals) are 8th and 12th grade boys.

Lesson 5: The Truth About Vitamins, Steroids, & Supplements

Discussion

DO (School Age) 15 minutes

? Ask: Can anyone name some of the vitamins and minerals that are important to be healthy? Possible answers: Vitamins A, B, C, D, E, K, and minerals such as calcium, zinc, potassium, iron, and iodine.

? Ask: What foods can you eat that will give you these nutrients? Possible answers:

- Fruits and vegetables
- Dairy products that contain Vitamin D
- Whole grain breads and cereals
- Low fat meat, seafood, beans and soy products

? Ask: Does anyone know which vitamin our bodies make when our skin is exposed to the sun? Answer: vitamin D

? Ask: What can people do to build muscle and improve their skill in physical activities? Possible answers: exercise and eat right. It is recommended that youth not lift weights until after puberty.

Activity 1 – Free (Fun) For All

DO (School Age) 30 minutes

Have kids brainstorm ways in which they can be physically active even if they are not part of organized sports or games. List their suggestions on poster paper. Possible answers: jumping rope, dancing, tag, relay races, running, jumping jacks, hula-hoop, push-ups, playing Wii Fit, X-Box, etc. Have children vote for their three favorite activities that can be done in their free time.

Divide youth into five groups. Select a leader for each group using a non-competitive selection process. For example, choose youth whose birthdays occur in this month, or who have on blue socks, whose mom or dad has a birthday closest to today, or who has a cat, etc.

Let each group pick one of the five activities, and have them figure out how it helps build muscles. After all the groups have finished, instruct them to demonstrate to the other groups their activity and explain how it helps to make them stronger.

Lesson 5: The Truth About Vitamins, Steroids, & Supplements

REFLECT (School Age)

? Ask: Which activity did you enjoy the most? Which one did you think was the best way to build muscles? Remind youth that each person is different and responds to exercise differently.

? Ask: What other activities could you do at home that would give you similar results? Examples: raking leaves, playing Frisbee with or walking the dog (at a fast pace), sweeping, running around the edge of the yard.

? Ask: Why would someone take vitamin-mineral supplements? Answer: a physician prescribed them for a specific health concern.

APPLY (School Age)

Ask youth to pick at least one at-home activity such as yard work or house work and find a way to make it more energetic. Suggestions: play music while doing the activity, give themselves a time limit to see if it makes the activity more fun, or have a "race" with a friend or sibling to get the task done more quickly. Ask youth to come to the next meeting prepared to report on their success in turning everyday activities into more active, fun exercises!

Optional Discussion - Steroids

DO (School Age) 10 minutes

You may discuss steroids with the group if you feel it is appropriate. For a basic overview of steroids and their effects, see the Middle School Age Discussion.

Visit http://teens.drugabuse.gov/mom/index.php for more information about teens and drug abuse.

Lesson 5: The Truth About Vitamins, Steroids, & Supplements

PREPARATION

20 minutes depending on training stations selected

SET UP

- ❑ Four circuit training stations - see Set Up Details

SUPPLIES

- ❑ Poster paper
- ❑ Markers
- ❑ Jump ropes, basketballs
- ❑ Timer or clock
- ❑ CD Player
- ❑ A variety of upbeat and relaxing music

HANDOUTS & BOOKS

Mind Over Matter: The Brain's Response to Steroids RL

Outcomes (Middle School)

The purpose of this lesson is to have youth:

- Understand the difference between anabolic-androgenic steroids and corticosteroids
- Identify short term vs. permanent side effects and risks of steroid use on the body
- Understand that steroid use may be a major growth inhibitor with serious, permanent, long term effects
- Be able to name some of the reasons why star athletes succumb to the temptation of using steroids
- Understand the competitive pressure of high school and club sports teams

Instructor Essential Information

SET UP DETAILS

To set up four of the circuit training stations, refer back to the Set Up Details for Lesson 6: Muscle Mania - Move it or Lose It on page 41. Set up these stations: push-ups, wall sits, crunches and ball pass. Bring out the necessary equipment. Review Activity 1 - Circuit Training, from Lesson 6 for a description of these activities.

STEROID USE

There are well-known short-term and permanent side effects from using steroids. Since anabolic steroids are illegal, there is very little scientific research on the effect that these substances may have on growing bodies. Evidence from corticosteroids suggests that they may be more damaging to youth and teens than has been documented. Middle school students may be exposed to, and influenced by, the popular media descriptions of athletic feats done under the influence of steroids, so it is important that they are aware of the dangers.

Familiarize yourself with symptoms and possible side effects of steroid use. You will need this information for the discussion below. http://teens.drugabuse.gov/parents/parents_ster1.php

Discussion

DO (Middle School) 10 minutes

? Ask: Who has heard of steroids? Some youth will be familiar with the term because of news coverage of abuse by baseball players or other athletes. Others may know about steroids from first-hand

Lesson 5: The Truth About Vitamins, Steroids, & Supplements

experience if a doctor has prescribed them for asthma, poison ivy, or other medical conditions.

? Ask: Why might someone use steroids? Make the point that there are two types of steroids and they do different things:

- **Corticosteroids** are prescribed by a doctor and are used to reduce inflammation. They come in many forms including pills or liquids that are swallowed, cream for rashes or insect bites, or sprays for other conditions, including asthma. Corticosteroids do not build muscle, and are not typically abused, but they do have some possible side effects.
- **Anabolic steroids** build muscle quickly, may improve athletic performance, and may reduce body fat. Anabolic steroids have many negative side effects that can cause long-term health problems and shorten the life span. Their use in sports is illegal since they are artificially enhancing performance.

Divide youth into groups of three or four.

? Ask: Do you know of anyone taking any powders or drinks that they think will improve their athletic performance? Examples: supplements from a health food store, energy drinks such as Red Bull, Volt, etc., or energy bars. Why do you think young people use these products? In your small group, have each person share why they think people use these supplements or food items.

? Ask: What do you know or what have you heard about the short-term and long-term positive and negative effects of using steroids? Have each small group select a reporter. After five minutes, ask the small groups to report back.

Appoint two recorders for the entire group. On the first sheet of poster paper on the wall, have the recorder write down the benefits of steroids. On the second sheet, record the negative effects of steroids. Through discussion, have youth determine which results are short term and which are long term by labeling them with either an "S" or an "L."

At the conclusion of this exercise, the instructor should fill in the gaps, being sure that the teens are aware of some of the longer-term effects of steroids as outlined on the National Institute on Drug Abuse website.
http://teens.drugabuse.gov/parents/parents_ster1.php

The section titled *Mind Over Matter: The Brain's Response to*

Lesson 5: The Truth About Vitamins, Steroids, & Supplements

Steroids RL gives a good synopsis of these side effects. http://teens.drugabuse.gov/mom/

? Ask: What are ways to develop muscles through exercise? Suggestions should include weight-bearing exercise and other strengthening exercises. Refer back to Chapter 1, Lesson 6: Muscle Mania.

Activity 1 – What's A Kid To Do?

DO (Middle School) 30 minutes

Divide into new groups. Present youth with several situations they might encounter in their lives where they will feel pressured to do things that they know are not good for them or someone else. This could be something they eat/use that is harmful, not telling the truth, cheating, fighting, etc. Examples:

- Drinking a lot of caffeine the night before a test so that they can stay up most of the night to study
- Tripping a player making a fast break with the ball while the referee is on other side of the field and can't see
- Elbowing someone hard just as they get near the basket
- Saying something negative about a friend in hopes that it will make someone like you better
- Eating a candy bar right before a game for an initial burst of energy

Point out that the pressure to succeed by doing something harmful is greatly magnified as you get older and compete at higher levels. The pressure is even greater for professional athletes whose careers, social lives, and sometimes family lives, are dependent upon their ability to perform.

? Ask: Have you ever participated in an activity where you had to go through a try-out or audition? This could have been a music group, a play, a team (sports, debating, 4-H judging), or other community or school activity. How did you feel?

Have each group make up a situation in which they will be rated or "tested" by peers and will be tempted to use some artificial or unethical means to boost their performance or present themselves in a more positive light. Have the groups role play their situation for the larger group. Ask each group what other actions they could have taken that would have been a better choice.

Lesson 5: The Truth About Vitamins, Steroids, & Supplements

Activity 2 – Muscle Building Through Circuit Training

DO (Middle School) 30 minutes

? Ask: Who knows what circuit training is? Circuit training is one way to build muscles.

We are going to participate in four circuit training stations: push-ups, wall-sits, crunches, and ball pass. Follow the procedure for warm-up, aerobics, and cool-down.

- **Warm Up** - Start with music that is calm. Ask youth to warm up at their own pace using any of the warm up exercises they learned about in Chapter 1.
- **Circuit Training** - Change the music to something more upbeat. Divide youth into four groups. Review each exercise (see Chapter 1, Lesson 6). When the youth have done each station twice for 3-5 minutes, have them jump rope as long as possible without stopping.
- **Cool-Down** - At the end of the exercise period, ask the group to cool down by walking slowly for 3-5 minutes, followed by a round of Simon Says stretches. See Chapter 1, Lesson 6, page 42.

? Ask: Why is it better to build muscles through exercise instead of steroids?

REFLECT (Middle School)
? Ask: How do you feel after the circuit training activity? Which station did you find most challenging?

? Ask: Thinking back on your role playing in Activity 1, how did it feel while you were acting out a situation in which you were tempted to do something unethical?

? Ask: What do you think is the main reason athletes abuse steroids? How do you think they feel after they are caught? How might their families and children feel?

APPLY (Middle School)
Have youth log onto the web site: http://teens.drugabuse.gov/sarasquest/ster2.php Ask youth to review the section on steroids and any other sections that interest them.

Lesson 5: The Truth About Vitamins, Steroids, & Supplements

PREPARATION

20 minutes depending on training stations selected

SET UP

- ❑ 4 circuit training stations, see Set Up Details

SUPPLIES

- ❑ Poster paper
- ❑ Markers
- ❑ Jump ropes, basketballs
- ❑ Timer or clock
- ❑ CD Player
- ❑ A variety of upbeat and relaxing music

HANDOUTS & BOOKS

Mind Over Matter: The Brain's Response to Steroids RL

Outcomes (Teen)

The purpose of this lesson is to have youth:

- Understand the difference between anabolic-androgenic steroids and corticosteroids
- Identify the short term and permanent risks and side-effects of steroid use on the body
- Learn about supplements thought by some teens to enhance their body appearance and strength
- Understand that different activities require different muscle performance (e.g., lifting weights uses different muscle groups than those used in distance running)
- Understand the competitive pressure of college and professional sports teams
- Learn the dangers inherent in using any substance prepared in an unregulated environment

Discussion

DO (Teen) 5-10 minutes

? Ask: What is your perception of steroid use by athletes? The discussion might include usage by baseball players, track and field scandals, Olympic drug testing, etc. Encourage open discussion.

? Ask: Who knows what steroids do in the body? Answer: there are two types of steroids and they do different things:

- **Corticosteroids** are prescribed by a doctor and are used to reduce inflammation. They can be used both internally and externally. Internally, they can be used to reduce swelling in lungs caused by asthma or some types of cancer and other auto immune diseases. Externally, they can be used in creams or sprays that can reduce inflammation from rashes, etc. Corticosteroids do not build muscle, and are not typically abused.
- **Anabolic steroids** build muscle quickly, may improve athletic performance, and may reduce body fat. Anabolic steroids have many negative side effects that can cause long term health problems and shorten the life span. There use in sports is illegal since they artificially enhance performance.

? Ask: Do you know of anyone taking any kind of powders or drinks

Lesson 5: The Truth About Vitamins, Steroids, & Supplements

to improve their athletic performance? Examples: supplements from health food store, energy drinks, etc.

? Ask: Why do you think that young people take these supplements?

Activity 1 – Steroid & Supplement Use

DO (Teen) 15-20 minutes

Divide teens into groups of three or four. Have them share among themselves what they know or have heard about the short term and long term positive and negative effects of using steroids. Have each small group select a reporter. After five minutes, have the small groups report back to the whole group.

On one sheet of poster paper, record the benefits of steroids. On the second sheet, record the negative effects of steroids. Have youth determine which results are short term and which are long term by labeling them with either an "S" or an "L."

At the conclusion of this exercise, instructor should fill in the gaps on steroid use, being sure that the teens are aware of some of the longer-term impacts of steroids. See the National Institute on Drug Abuse handout: *Mind Over Matter: The Brain's Response to Steroids*. It is available at: http://teens.drugabuse.gov/mom

? Ask: How many of you have heard of creatine or know of other legal or illegal supplements that athletes use for enhanced performance? Ask the small groups to think of reasons why these supplements are not wise for teens to use. Possible answers:

- Research has not been done specifically on teens to determine whether or not the substance is dangerous for youth
- There is little research or information on side effects of supplements
- There is no guarantee of contents matching the label since there is no regulation on manufacturing these substances

Activity 2 – What's A Kid To Do?

DO (Teen) 30 minutes

See instructions for Activity 1 for Middle School youth, on page 113. Have teens discuss some natural, healthy ways to develop muscles other than using steroids. Suggestions should include weight

Lesson 5: The Truth About Vitamins, Steroids, & Supplements

bearing exercise and other strengthening exercises. Refer back to Chapter 1, Lesson 6: Muscle Mania.

REFLECT (Teen)

? Ask: Ask youth to think about what they learned about steroids or supplements that they didn't already know.

APPLY (Teen)

Think about the cyclical nature of publicity surrounding steroids. Ask each participant if they've heard anything recently about this topic. Can they relate what they've learned about steroids to major sporting events such as the Olympics, the World Cup, the Super Bowl, etc.

Activity 3 – Muscle Building Through Circuit Training

DO (Teen) 30 minutes

See instructions for Muscle Building Through Circuit Training for Middle School youth, Activity 2, on page 114.

Technology Challenge

(Teen)

Have teens visit the web site for National Institute on Drug Abuse http://teens.drugabuse.gov/

Resources

National Clearinghouse for Alcohol and Drug information 1-800-729-6686

Lesson 6: Energy Drinks and Foods

PREPARATION

30 minutes

SET UP

See Set Up Details.

SUPPLIES

- ❑ One 2-cup measuring cup for each group
- ❑ Bottled water or tap water
- ❑ Drinking straws
- ❑ Paper cups or drinking glasses that will hold 12 ozs. of water
- ❑ A variety of sports energy bars, drinks and gels (save the grocery receipt for price comparison)
- ❑ 3 X 5 index cards
- ❑ Marker
- ❑ Peeled cucumber and oranges
- ❑ Sports pinnies or flags

HANDOUTS & BOOKS

Picture or poster of the entire human body (can be a magazine picture)

Outcomes (School Age)

The purpose of this lesson is to have the children:

- Learn that their bodies need water every day to be healthy
- Learn what 12 ounces of water looks like
- Understand that water is the best way to hydrate before, during, and after exercise
- Learn that many foods contain water
- Compare prices of sports drinks and sodas
- Sample several different energy drinks, food bars, and gels
- Participate in an aerobic activity

Instructor Essential Information

SET UP DETAILS

The instructor should do the following before class begins:

- Set out several liquid measuring cups and bottled water.
- Have at least one drinking straw for each youth.
- Display several kinds of sports energy bars, drinks, and sports gels. Divide them into small amounts for sampling.
- On a 3 X 5 index card, use a marker and write the name and price of each energy bar, sports drink, or gel. Place the card price-side down so the amount is not visible.
- Peel cucumber and oranges. Cut them into slices and separate them so that there are one to two slices of each for everyone.
- Display picture or poster of human body where it is visible to everyone. You can use a magazine picture of a model or athlete if necessary.

Discussion

DO (School Age) 15 minutes

? Ask: How much of your body is made of water? Answer: 55-70%. Use the magazine picture of the human body to illustrate what 55-70% looks like. You may wish to use a marker to color 70% of the body so that the youth understand just how much this figure represents.

? Ask: Can you name some of the functions that water has in the human body? Answers: water helps with food digestion, helps the blood transfer needed nutrients to muscles, helps keep blood moving smoothly through veins, and helps regulate heating and cooling systems in the human body.

Lesson 6: Energy Drinks and Foods

Since we need water for critical body functions, it is important that we continuously replace the water we lose when we exercise, sweat and go to the bathroom.

? Ask: Can you name some foods that contain a large percentage of water? Examples: milk, juice, soda, smoothies, other beverages, fruits and vegetables.

Explain that all foods contain some water and many foods, especially fruits and vegetables, contain large amounts of water. Stress that if youth eat a variety of foods with plenty of fresh fruits and vegetables, they will get about 20% of the water their bodies need from their food. The rest must come from the beverages they drink. Use the picture of the body to show what 20% and 80% look like.

? Ask: How much do you think these sports drinks cost? Have youth guess the cost of each of the sports drinks, but don't share the answers.

? Ask: Why do you think these sports drinks cost so much? Can you identify another beverage that provides the same benefit? Answer: water.

? Ask: How much do you think these sports gels and energy bars cost?

? Ask: What other foods might provide some of the same nutrients as the sports drinks and bars? Examples: milk, whole-grain bread, nuts, peanut butter, fruits and vegetables, fruit juice.

SET UP

See Set Up Details.

SUPPLIES

- ❑ One 2-cup measuring cup for each group
- ❑ Bottled water or tap water
- ❑ Drinking straws
- ❑ Paper cups or drinking glasses that will hold 12 ozs. of water

Activity 1 – How Much Water Is In A Soda Can?

DO (School Age) 10 minutes

Divide the children into groups. Give each group some bottled water and a liquid measuring cup. Make sure each group has a drinking glass and a straw for each person.

Have each child measure 12 ounces of water (1½ cups) into their glass. Explain that this is the size of a can of soda. Have them drink it or sip it with a straw.

While they are drinking their water, review the functions of water in the human body. Have them discuss whether this amount is more or less water than they normally drink in one serving.

Lesson 6: Energy Drinks and Foods

? Ask: Why is it preferable to drink 12 ozs. of water vs. 12 ozs. of soda? Possible answers: water hydrates your body better than soda, soda is nothing but empty calories, a 12 oz. can of soda contains 10 teaspoons of sugar.

SUPPLIES
Peeled cucumber and oranges

Activity 2 – Tasting The Water In Food

DO (School Age) 10 minutes

Give each child one slice each of orange and cucumber. Have them taste each one separately.

? Ask: Can you taste the water in the food?

Earlier in the lesson, youth learned what 1½ cups of water looks like. Next, ask them to guess what percentage of a cucumber is water. What percentage of an orange is water? Answers: a cucumber is 96% water, an orange is 88% water. You can also provide samples of several other low- and high-water content foods for comparing texture, juiciness and taste. Examples might include: crackers, watermelon, carrots, tomatoes, mangoes, lettuce, etc.

SUPPLIES
Sports pinnies or flags

Activity 3 – Tag Or Muscle "Rest" Game

DO (School Age) 15 minutes

Tell youth that they will be playing a game of tag. Ask for two to three volunteers to be "it" at the beginning and give them flags or pinnies to wear. Confine the tag game to a specific area where there are no safe bases. The object of the game is for the youth wearing the pinnies to tag the other youth. After a youth has been tagged, he/she must take the pinnie and become "it."

If a youth wants to rest, he or she may stop running but must complete a set of 10 activities such as sit-ups, push-ups, wall push-ups, step-ups, chin-ups, or other muscle-building activities that have been predetermined as "rest" activities. (A step-up requires youth to "step up" 10 times with each leg, using a sturdy step.) After the tag game has ended, ask the following questions.

? Ask: Did you notice that your body began to sweat during or after the game? Why do we sweat? Answer: it cools us off so we don't overheat. We need to replace the water we lose through sweating.

Lesson 6: Energy Drinks and Foods

SET UP
See Set Up Details.

SUPPLIES
- ❑ Paper cups
- ❑ A variety of sports energy bars, drinks and gels (save the grocery receipt for price comparison)
- ❑ 3 X 5 index cards
- ❑ Marker

Activity 4 – Tasting Food Bars & Energy Drinks

DO (School Age) 10 minutes

Give each child a few samples of different sports bars, gels and energy drinks. Have them try each one separately and discuss the taste and texture. Do they like the taste? Why or why not? As a group, have children rate them on a scale of 1 to 5, where 1 is great and 5 is yucky.

Next, turn over the 3 X 5 cards so that prices of the items are visible. Did the more expensive drinks and bars get a better rating? Discuss whether or not the sports bars, gels and energy drinks are a "good buy" economically and nutritionally. Refer to the food labels for the ingredient list. Are there other, cheaper and better tasting alternatives that provide the same nutrients?

REFLECT (School Age)

? Ask: Why do you think two young people of the same age might need different amounts of water? Answer: the amount of water each person needs depends on size, where they live, and how active they are.

Discuss how exercise affects how much water we need to drink. The more active youth are the more water they need.

? Ask: What are other things that affect how much water we drink every day? Does weather make a difference? How?

APPLY (School Age)

Ask youth to keep a record for one week of how much liquid they drink. To keep track of their consumption, have children use measuring cups or drink from pre-measured beverage containers. Have them record the amount and type of beverage: water, milk, juice, or soda. What else did they drink (e.g., milkshakes, smoothies, ice tea)? Which beverage did they drink the most?

Lesson 6: Energy Drinks and Foods

PREPARATION

45 minutes

SET UP

See Set Up Details.

SUPPLIES

- ❑ Marker or pen
- ❑ 3 X 5 index cards
- ❑ 2-4 tablespoons and teaspoons
- ❑ Bottled water or tap water
- ❑ Paper cups
- ❑ A variety of sports drinks, bars, gels
- ❑ Oranges and cucumbers (1-2 slices per youth)
- ❑ Bottled lemon and lime juice
- ❑ One small can of orange juice concentrate
- ❑ Salt
- ❑ Empty gallon container or pitcher
- ❑ Sports pinnies or flags
- ❑ Food pictures from magazines
- ❑ Index cards with percent of water in foods (see Set Up Details)
- ❑ 12-ounce container of water for display
- ❑ One 2-quart milk carton, filled with water

Outcomes (Middle School • Teen)

The purpose of this lesson is to have youth:

- Understand that water is the best way to hydrate under most circumstances
- Identify the instances when a sports drink, gel or energy bar is an appropriate substitute for water or food
- Learn that many foods contain water
- Compare prices of sports drinks and sodas
- Make a homemade sports drink
- Understand that energy bars and gels do not build bigger muscles or provide better energy
- Sample several different energy drinks, bars and gels
- Participate in an aerobic activity
- Understand the physiological reasons for sweating

Instructor Essential Information

SET UP DETAILS

Before lesson begins, the instructor should:

- Set out orange, lime, and lemon juices, salt, water, measuring spoons, mixing equipment and cups for making and sampling sports drinks.
- Display several kinds of sports drinks, energy bars, and gels and divide them into small amounts for sampling.
- On a 3 X 5 index card, write the price of each energy bar or sports drink; place card price-side down so the amount is not visible.
- Peel cucumber and oranges. Cut them into slices and separate so that there is at least one slice of each for everyone.
- The instructor or youth should cut out pictures from magazines of the following foods: chicken noodle soup, broccoli, milk, orange, oatmeal, grapes, rice, roasted chicken, roast beef, whole wheat bread, beef jerky, raisins, oatmeal cookie, saltine crackers, and rice cereal. On separate index cards, write the corresponding percentage of water these foods contain. See Activity 5 – Body of Water Relay instructions for percentage amounts.

Lesson 6: Energy Drinks and Foods

Discussion

DO (Middle School • Teen) 25 minutes

? Ask: How much of your body is made of water? Answer: 55-70%.

? Ask: Why are beverages important? Explain that beverages contain mostly water. Since so much of your body is made of water, you need to drink a lot of it to remain healthy. Share with youth that more than 80% of blood is water; 70% of muscle is water; 25% of body fat is composed of water; and more than 20% of bone is water.

? Ask: Can you name some of the other important functions of water in the human body? Answers: Water:

- Helps with food digestion
- Makes it possible for blood to transport needed nutrients to muscles
- Helps blood move smoothly through veins
- Regulates the heat and cooling system in the human body
- Acts as a lubricant and protective cushion around tissues and sensitive organs like the eyes and brain

Because we need water for bodily functions, it is important to continuously replace the water we lose when we exercise, sweat, and use the bathroom.

Explain to youth that there is no absolute rule about how much water they should drink each day. It depends on how active they are and where they live. While exercising or playing sports, you should regularly replace fluids that are lost through sweating.

Sweating serves a very important function in the body. It helps to regulate body temperature. The American College of Sports Medicine recommends drinking water as follows:

- Two hours before exercise - drink 16 ozs. of water
- Twenty minutes before working out – drink an additional 8 ozs of water.
- During vigorous workouts - drink 4-8 ozs. of water every 20 minutes.
- After your workout – drink 18-24 ozs. of water within 30 minutes.

A quick way to tell if you are properly hydrated is to check the color of your urine. If your urine is clear or a very pale yellow, you are

Lesson 6: Energy Drinks and Foods

probably getting enough water. If your urine is dark and concentrated you need more water.

? Ask: Can you name some foods that provide water for our bodies? Examples: milk, juice, fruit and vegetables. Explain that all foods contain some water. Many foods, especially fruits and vegetables, contain a large amount of water.

? Ask: Can you guess the prices on the sports drinks and energy bars?

? Ask: Why do you think some drinks might be more expensive than others?

? Ask: What foods might provide some of the same nutrients as the sports drinks and bars? Examples: milk, whole-grain bread, nuts, fruit and vegetables, peanut butter, fruit juice. Stress that if youth eat a variety of foods with plenty of fresh fruits and vegetables, they will get about 20% of the water their bodies need from their food. The rest needs to come from the beverages they drink.

? Ask: Can you give an example of when you might need to drink a sports drink or eat an energy bar instead of other food? Stress that water and a healthy varied diet with plenty of fruits, vegetables, lean meat, low-fat dairy products and whole wheat grains is the best fuel for athletes and growing teens.

The only time young people need to supplement their athletic regimens with sports drinks is when they are doing continuous and strenuous exercise for longer than 60 minutes, or when exercising in very hot weather. Sports drinks provide electrolytes (such as sodium and potassium) and carbohydrates that may be depleted during long, strenuous activities.

Energy bars and gels can provide a quick source of energy, usually from carbohydrates. If a teen is engaged in sports or activities such as long-distance running or long hikes, such foods are convenient and lightweight. Otherwise, the best choice for athletic fuel is getting energy from a variety of healthy food sources.

Stress to youth that many energy bars promise bigger muscles and enhanced performance. However, the only real way to grow stronger and enhance performance is the old-fashioned way - an appropriate training regimen combined with a healthy diet.

Lesson 6: Energy Drinks and Foods

SUPPLIES
See recipe for ingredients and utensils list.

HANDOUTS & BOOKS
Recipe: *Homemade Sports Drink* A p. 250

Now We're Cookin' - Homemade Sports Drink

(Middle School • Teen) 20 minutes

Have youth wash their hands using the *Proper Handwashing* steps on page 25. Make the *Homemade Sports Drink* either as one large group or divide the youth into groups. If you have several groups, give each group one gallon of water and the ingredients for the *Homemade Sports Drink*. The recipe is in Appendix A. Refrigerate and use as a refreshment for youth in the coming week.

SET UP
See Set Up Details.

SUPPLIES
- ❑ Paper cups
- ❑ A variety of sports energy bars, drinks and gels (save the grocery receipt for price comparison)

Activity 1 – Comparing Sports Drinks

DO (Middle School • Teen) 20 minutes

Each group will taste and compare their homemade sports drink with a store-bought sports drink, such as Gatorade. Give each group both types of drinks and the paper cups. Pour out samples of the homemade sports drink. Ask youth to sample the homemade sports drink and describe the taste.

Next, ask the group to pour a small amount of the Gatorade into their empty cups and compare the taste of Gatorade to the homemade sports drink.

? Ask: Which one do you like better? Why?

? Ask: How are the ingredients of the two drinks similar? How do they differ?

Optional: For tasting and discussion purposes, ask one group to use less than one gallon of water and one group to use more than one gallon of water for making the homemade sports drink.

Activity 2 – Tasting The Water In Food

DO (Middle School • Teen) 10 minutes

See School Age instructions for Activity 2 - Tasting The Water In Food on page 120.

Lesson 6: Energy Drinks and Foods

Activity 3 – Tag or Muscle "Rest" Game

DO (Middle School • Teen) 15 minutes

See School Age instructions for Activity 3, Tag or Muscle "Rest" Game, on page 120.

After the tag game, ask the youth if their bodies began to sweat during or after the game.

? Ask: Why do we sweat? Answer: it cools us so we don't overheat.

Optional Activity: Older youth may wish to do another activity in place of the Tag or Muscle "Rest" Game. Suggestions include a dance aerobic DVD, walking up and down stairs, playing continuous basketball or any other activity that keeps their heart rates elevated during the length of the activity.

Activity 4 – Tasting Food Bars & Energy Drinks

DO (Middle School • Teen) 10 minutes

See School Age instructions for Activity 4, Tasting Food Bars & Energy Drinks, on page 121.

SET UP

See Set Up Details.

SUPPLIES

- ❑ Marker or pen
- ❑ 3 X 5 index cards
- ❑ Bottled water or tap water
- ❑ Empty gallon container or pitcher
- ❑ Food pictures from magazines
- ❑ Water percentage cards for Body of Water Activity
- ❑ 12-ounce container of water for display
- ❑ One 2-quart milk

Activity 5 – Body of Water Game

DO (Middle School • Teen) 15 minutes

Remind youth that water is essential to the body. Explain the need to frequently replace water in our bodies through food and beverages. Share the following interesting water facts:

- An adult will lose up to 8 cups of water a day, which is the amount of liquid in a ½ gallon carton of milk. Show a ½ gallon (2-quart) container of water.
- The amount of water lost in one day just from breathing is 1½ cups of water. That is 12 ounces. Show youth a 12-ounce container of water.

Tell youth they will be playing the Body of Water game.[4] Depending upon the size of the group, give each youth either a food

[4] The Body of Water Activity is adapted from: WIN Kids Fun Days, Wellness in the Rockies: http://www.uwyo.edu/wintherockies.

Lesson 6: Energy Drinks and Foods

carton, filled with water

picture from the list below, or an index card with a water content percentage. The pictures can be cut from a magazine. The object of the game is to match the food item card with the water content percentage card.

Below is the correct matching information.

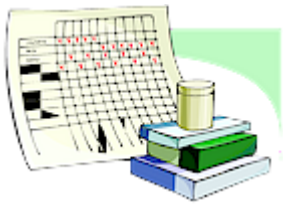
Food Item Water Content	
- Chicken noodle soup 93%	- Roast beef 57%
- Broccoli, raw 91%	- Whole wheat bread 38%
- Milk 89%	- Beef jerky 23%
- Orange, raw 87%	- Raisins 15%
- Cooked oatmeal 85%	- Oatmeal cookie 6%
- Grapes 81%	- Saltine crackers 4%
- Cooked rice 68%	- Crispy rice cereal 2½%
- Roasted chicken 60%	

REFLECT (Middle School • Teen)

? Ask: Why would two young people who are the same age need different amounts of water? Discuss how exercise and weather affect how much water we need.

? Ask: What important mineral is in orange juice that makes it a good ingredient for a homemade sports drink? Answer: potassium.

? Ask: Why is it so important to drink plenty of fluids before you feel thirsty? Answer: by the time you feel thirsty you may already be experiencing dehydration.



APPLY (Middle School • Teen)

Ask youth to keep a record for one week of how much water they drink. Have them use measuring cups to keep track of their consumption.

Ask them also to keep a record of milk, juice and sodas that they drink. Which beverages do they drink the most?

Chapter 4 Consumer Challenge

Introduction

In Chapter 4, youth are introduced to the challenges of being a consumer and how to interpret marketing claims. Youth learn that not all websites are credible and that they need to investigate the information provided on websites.

One of the important skills youth learn in Label Lingo is how to make healthy food choices by reading food labels. This lesson includes an activity that helps youth understand the terminology on a food label and how the numbers relate to the USDA 2010 Dietary Guidelines. Youth are encouraged to try some new and different food choices. Since typical food portions keep growing, youth learn what a healthy portion looks like and how to choose a healthy-sized meal.

Lesson Summary

1.	Selling Or Telling	Nutrition
2.	Which Sport Which Shoe	Fitness
3	Label Lingo	Nutrition
4.	Media Mania	Nutrition
5.	Eating Out	Nutrition
6.	New And Unusual Foods: Why Not Give It A Try?	Nutrition
7.	It's All About Size: Portion Distortion	Nutrition

Lesson 1: Selling or Telling

Getting Reliable Information from the Web

PREPARATION

15 minutes

SUPPLIES

- ❑ Marker
- ❑ Poster board or easel

HANDOUTS & BOOKS

Finding Good Food on the Internet A p. 251

Outcomes (School Age)

The purpose of this lesson is to have the children:

- Learn safety rules for using the Internet
- Understand the basics of how the Internet, web browsers and search engines work
- Use a search engine
- Learn the difference between a website that is "selling" and one that is "telling"
- Identify a credible nutrition and/or fitness website
- Begin to develop research skills

Discussion

DO (School Age) 20 minutes

Tell youth that safety on the Internet is very important and that they must follow these four rules. Write down or make a poster of the rules to hang in a visible spot in the computer lab.

Rules for using the Internet:

- **Rule 1** Youth must not give out any personal information such as address, photo, telephone number, school location, etc., without permission from their parents or other adult (such as a teacher).
- **Rule 2** Youth should never join a chat group on the Internet at school or in the computer lab without their parent's permission. Stress that if they do get permission to join a chat room they must never tell their password to anyone.
- **Rule 3** Youth must tell their parents or another adult right away if they come across any information that makes them feel uncomfortable.
- **Rule 4** Youth must NEVER agree to get together with someone they "meet" online without first checking with their parents.

? Ask: What exactly is the Internet? Invite youth to share their ideas. Explain that the Internet is a huge collection of computers around the world that are all linked together so that we can "talk" to each other and share information.

? Ask: What is a web browser? Explain to the youth that a web

Lesson 1: Selling or Telling

browser is the software they are using to look at web pages. Anytime they look up something on the Internet they are using a web browser. There are lots of different web browsers, but the most popular ones are *Internet Explorer, Netscape, Safari, Chrome,* and *Mozilla/Firefox.*

? Ask: Which web browser are you using at home, in school, or in the computer lab?

? Ask: What is an Internet search engine? Explain that to do research on their computers for a homework assignment, or to find a game or something else that interests them, youth must know how to use an Internet search engine. Internet search engines help you find web pages on a given subject. The search engine does this by collecting information on the contents of web sites. One of the more popular search engines is Google http://www.google.com. There are many others.

Explain to youth that the Internet can be a very useful tool to search for information. While some websites provide good, credible information, others want you to buy a product and/or are promoting merchandise or ideas that aren't backed by scientific research. This is particularly true for nutrition and fitness websites.

Health information is one of the most researched topics on the web. Tell youth to be cautious about websites that make claims about food or fitness equipment that seem too good to be true. Stress that the best sources of information on food and fitness come from governmental agencies such as the United States Department of Agriculture, research universities, and professional organizations such as the American Dietetic Association.

Activity 1 – Learning About Search Engines

DO (School Age) 20 minutes

Instructor Note: If the children do not have basic computer knowledge, have them start with the first website under the Technology Challenge section. To complete this activity, you will need the *Finding Good Food on the Internet* handout.

Tell children that they will learn how search engines can help them find nutrition and food information on the web. Go to the Yahoo search engine at http://www.yahoo.com and type in the key words "ethnic foods."

Find three different recipes from various parts of the world. Write down the names of the recipes, the country of origin, and the recipe

Lesson 1: Selling or Telling

ingredients. Pick one of the recipes to prepare during an upcoming lesson.

Activity 2 – Find Reliable, Accurate Websites

DO (School Age) 60+ minutes

? Ask: How can you determine if a website is accurate and reliable? Brainstorm this question and use the easel or blackboard, to make two lists. Begin the first list with: "A Website is Probably Credible If…." Have youth describe why a website might be viewed as credible. Examples: the information on the website will be credible if it comes from professional organizations, governmental agencies, or research institutions or universities, such as:

- American Dietetic Association
- American Medical Association
- American Cancer Association
- American Heart Association
- National Institutes of Health
- Centers for Disease Control
- National Heart, Lung, & Blood Institute
- Tufts University
- Mayo Clinic

Begin the second list with: "You Should be Cautious of a Website If…" Have youth describe why a website might be viewed as less credible or reliable. Keep the lists in a visible place in the computer lab. Some possible examples of suspicious website claims are:

- Products promising miracle cures
- Words or phrases like "too good to be true," miraculous, instant results, etc.
- Products that claim results that are not based on scientific evidence
- Lists that identify foods that are "good" or "bad"
- Fitness equipment that claims it will make drastic changes in body appearance

After the two lists are complete, ask the youth to use a search engine such as Google: http://www.google.com or Yahoo: http://www.yahoo.com to search one of the following topics related to health and/or nutrition.

- Fitness
- Energy drinks
- Diets
- Weight loss

Lesson 1: Selling or Telling

Tell youth to pick two websites for each one of these health topics. One website should be chosen from the criteria identified above and another that seems less credible. Ask them to explain how they decided that a website may be misleading.

Finally, reinforce to the youth that the Internet is a wonderful and quick resource for them to learn about new things and to verify information they have heard from other sources. However, they should always evaluate a website's credibility based on the criteria they have established for "credible websites."

PREPARATION

🕒 15 minutes

SUPPLIES

- ❑ Marker
- ❑ Poster board or easel

HANDOUTS & BOOKS

Finding Good Food on the Internet A

Outcomes (Middle School • Teen)

The purpose of this lesson is to have youth:

- Learn safety rules for using the Internet
- Be able to identify a credible nutrition and/or fitness website
- Recognize the difference between a marketing website and a research-based website
- Use the web to search for information relating to nutrition and/or health

Discussion

DO (Middle School • Teen) 🕒 20 minutes

Use the School Age Discussion on Internet Safety, page 130.

Activity 1 – Find Reliable, Accurate, Websites

DO (Middle School • Teen) 🕒 60+ minutes

Use the School Age, Activity 2 – Find Reliable, Accurate, Websites on page 132.

Technology Challenge

(All Ages)

To learn about the Internet, guest books, web browsers, and more visit *Mark Warner's Welcome To The Web* website: http://www.teachingideas.co.uk/welcome/. After you have completed the first six sections on the page try the Challenge to solve the mystery!

Lesson 1: Selling or Telling

Go to the U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, HealthFinder Kids website: http://www.healthfinder.gov/kids. There you will find all kinds of cool websites. Learn about ways to stay healthy and have fun too!

Visit the Centers for Disease Control and Prevention, Body and Mind and learn how to separate food fact from fiction: http://www.bam.gov. Click on "Food and Nutrition."

Do you enjoy trying new kinds of foods? Visit http://allrecipes.com to find some exciting new recipes to try for your friends or family.

Lesson 2: Which Sport, Which Shoe?

PREPARATION
5 minutes

SET UP
Copy the *Athletic Shoe Situations* handout for each youth.

SUPPLIES
- ❑ Markers
- ❑ Large piece of paper or blackboard

HANDOUTS & BOOKS
Athletic Shoe Situations A p. 254

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Explore differences in shoes designed for different sports
- Compare athletic shoes to make an informed buying decision considering cost, quality and use

Discussion

DO (All Ages) 15 minutes

This is a brainstorming session to get the youth to think about athletic shoes and how they are constructed and marketed. Ask the youth the following questions and have a volunteer record their answers.

? Ask: How many different types (not brands) of athletic shoes can you name? Examples: running, tennis, cross-training, basketball, soccer, etc.

? Ask: How do you determine what type of shoe is best for a particular sport or for all-around wear? Suppose you are looking for a shoe that was designed for a specific sport such as: _____ (name a sport). What features would you look for in that shoe?

? Ask: Do you really need a sport-specific athletic shoe? Answer: yes, if you are playing a sport at least three times a week. If you play that often you should consider getting shoes that are designed specifically for that sport. Each sport puts stress on a different part of the foot and shoes are designed accordingly. Here are some examples of sport-specific athletic shoes:

- **Aerobic** – These shoes will be lightweight with extra shock absorbency in the sole beneath the ball of the foot where the most stress occurs.
- **Basketball** – These shoes need to handle quick stops and starts along with twists and turns. Feet move in all directions so look for a shoe with a thick, stiff sole and a rigid heel. Some basketball shoes are higher around the ankle for protection or support. Look for shoes that have adequate inner sole cushioning and a tread designed to assist in maintaining traction.
- **Cross Trainers** – These shoes are designed for a variety of sports, combining several features found in sport-specific

Lesson 2: Which Sport, Which Shoe?

shoes. They will be more flexible than a basketball shoe with more side-to-side stability than a running shoe.

- **Running Shoe** – Feet are constantly pounded during a run. Look for a shoe that will provide good shock absorption, flexibility in the toe area, and overall cushioning. The sole has front end curves to protect the toes, padded insoles, and an arch support.
- **Tennis Shoe** – Those playing tennis need to move quickly in all directions. A padded toe box, ankle, innersole, and tongue are important.
- **Walking Shoe** – Since walking creates a rolling motion, walking shoes are more rigid in the front than running shoes. Look for shock absorption in the heel and under the ball of the foot. A slightly rounded sole helps shift weight from the heel to the toes.

Technology Challenge

(All Ages)

Each youth should have a copy of the *Athletic Shoe Situations* handout. There are two situations, one for School Age youth, and one for teens. Each scenario will help youth evaluate athletic shoes and determine which would be best for each of these situations. Youth may work in a group or individually.

After they read the situation, have them go online to sites that sell shoes and find four different shoes to purchase based on the information. Rank all of the possibilities in order of preference.

REFLECT (All Ages)

When youth are finished researching shoes, have them report to the group which shoes they chose and why.

APPLY (All Ages)

Have youth look at the shoes they are currently wearing or ones they have at home. Are they using them for the purpose for which they were designed? What motivated them to buy these particular shoes? Looks? Fashion? Price?

Resources

Buying Shoes: Construction, Fit/Comfort and Price Handout, Appendix A, page 252.

Lesson 3: Label Lingo

PREPARATION

10 minutes

SET UP

See Set Up Details.

SUPPLIES

- ❑ Pencils
- ❑ Computer paper
- ❑ Magazine ads such as "Got Milk"
- ❑ *MyPlate* poster RL

HANDOUTS & BOOKS

- ❑ *Working on the Macaroni and Cheese Label* A p. 255
- ❑ *Label Scavenger Quest* A p. 256
- ❑ *How to Understand and Use the Nutrition Facts Label*
- ❑ *What's On the Label?*
- ❑ *What's The Score?*
- ❑ *What's The Score? Answer Key*
- ❑ *Get Your Calcium-Rich Foods*
- ❑ *Trans Fat Worksheet* A p. 257

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Learn the components of a food label
- Use the label as a tool to make healthy food choices

Instructor Essential Information

The use of the nutrition label on food products aids in the selection of wholesome foods. Labels allow you to:

- Compare products more easily. There is uniformity of serving sizes among similar products. Serving sizes are expressed in household measuring tools.
- Identify nutrients that relate to health concerns in a uniform way under the title Nutrition Facts.
- Compare nutrient content descriptive terms, which are carefully defined by law. Two examples are low-calorie which means 40 calories or less per serving, and light or lite which means 1/3 fewer calories per serving compared to the regular food.
- Review the ingredient list that appears on foods with two or more ingredients. By law, ingredients must be listed in descending order by quantity. This means that the first ingredient is the main ingredient.

SET UP DETAILS

(School Age)
Go to http://www.fda.gov/Food/ResourcesForYou/Consumers/NFLPM/ucm274593.htm#twoparts and download the handout: *How to Understand and Use the Nutrition Facts Label*. You can find this download by clicking on the link: "Nutrition Facts Label Programs and Materials." The other two handouts: *Working on the Macaroni and Cheese Label* and *Label Scavenger Quest* can be found in the Appendix.

(Middle School)
Go to http://teamnutrition.usda.gov/Resources/mypyramidclassroom.html and select MyPlate for Kids, Level 3 Lessons. Download *Lesson 3: Get Your Calcium-Rich Foods*.

At the end of Lesson 3, there are three handouts. Make enough copies of these handouts so that each youth has a set. Do not pass out the Answer Key until youth have completed the activity.

Lesson 3: Label Lingo

- *What's On the Label?*
- *What's The Score?*
- *What's The Score? Answer Key*

(Teen)
Make one copy of the *Trans Fat Worksheet* handout for each youth.

Discussion

DO (School Age) 10 minutes

There are three major areas on food labels. They are:

- **Nutrition Facts**: This panel contains dietary components that appear in a standardized format.
  - Calories
  - Total Fat
  - Cholesterol
  - Sodium
  - Total Carbohydrate / Dietary Fiber & Sugars
  - Protein
- **Ingredient List**: By law, ingredients are listed in descending order. The first ingredient is the main ingredient.
- **Descriptive Words**: While these are optional, they must be accurate. Descriptive words such as low-calorie and light have been defined by law.

Activity 1 – The Macaroni and Cheese Label

DO (School Age) 45 minutes

Using the Sample Label for Macaroni and Cheese from Chapter 3, Lesson 1, found in the Appendix on page 237, complete the *Working on the Macaroni and Cheese Label* handout to learn how to read a nutrition facts label.

REFLECT (School Age)
? Ask: What does the label tell you?
? Ask: How does the label help you make food choices?

APPLY (School Age)
Pass out the *Label Scavenger Quest* handout and have the youth look at food labels at home to complete the questions. They should be prepared to discuss what they found at the next meeting.

Lesson 3: Label Lingo

Activity 2 – What's On the Label?

DO (Middle School) 20 minutes

This lesson focuses on calcium-rich foods and uses the information given on a nutrition label. Use the *Get Your Calcium-Rich Foods* lesson that you downloaded before class from the http://teamnutrition.usda.gov/Resources/mypyramidclassroom.html Use the information in the handout about different kinds of milk to complete the *What's the Score* handout.

REFLECT (Middle School)
Review the *What's the Score? Answer Key* with students.

APPLY (Middle School)
Pass out the *Label Scavenger Quest* handout and have the youth look at food labels at home to complete the questions and be prepared to discuss what they found at the next meeting.

Activity 3 – This Fat, That Fat, Trans Fat

DO (Teen) 35-45 minutes

Go to the U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition page at http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm079609.htm and read *Trans Fat at-a-Glance*. Use the information on this website to complete the first part of the *Trans Fat Worksheet* handout in Appendix A.

REFLECT (Teen)
? Ask: From what you have learned about trans fat, can you identify any foods you eat frequently that have a lot of trans fat? What can you do to reduce your consumption of trans fat?

APPLY (Teen)
Take the *Trans Fat Worksheet* handout home and complete the second part, "The Hunt for Trans Fat." Check your kitchen. Make a list of any products you can find that contain trans fat. Be sure to look at a margarine label if you have any. Does it contain trans fat?

Technology Challenge

(All Ages)

Have each youth bring a snack food label to the next meeting.

Lesson 3: Label Lingo

Have them find out how healthy their snack is according to California Nutrition Standards using the nutritional calculator at http://www.californiaprojectlean.org/doc.asp?id=180&parentid=95. Follow the instructions on the page to discover the nutrient value of the snack.

Resources

How to Understand and Use the Nutrition Facts Label: http://www.fda.gov/Food/ResourcesForYou/Consumers/NFLPM/ucm274593.htm#twoparts

Lesson 4: Media Mania

PREPARATION
10 minutes

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Discover the impact of the media on food choices
- Identify techniques used in advertisements to encourage consumers to purchase their products
- Learn to evaluate ads for credible nutrition information
- Use advertising techniques to develop a tool to market healthy food choices
- Evaluate products based on factual information versus advertising claims

Discussion

DO (All Ages) 15 minutes

Ads can exert a powerful influence on our spending and eating habits. A report of the American Psychological Association's Task Force On Advertising and Children[5] provides these estimates:

- The average child sees more than 40,000 television commercials a year.
- Advertisers spend more than $12 billion per year to target the youth market because of its strong contribution to the consumer economy.
- Children 14 years and under make $24 billion in direct purchases, and influence $190 billion in family purchases.

? Ask: What is a jingle? Answer: a jingle is a slogan or piece of music in advertising that helps you remember the product or service.

? Ask: What is your favorite food ad? Did a jingle or company character help you remember the product or cause you to buy it? Some possible examples: Cheerios, the Jolly Green Giant, Captain Crunch. Describe the connections and choices we make because of the power of ads.

Show youth some examples of popular advertising campaigns in magazines such as "Got Milk?"

? Ask: What is advertising? Why do you think companies advertise

[5] *Report Of The American Psychological Association's Task Force On Advertising And Children: Psychological Issues in the Increasing Commercialization of Childhood*," February 20, 2004, the American Psychological Association. See http://www.apa.org/monitor/jun04/protecting.html.

Lesson 4: Media Mania

their products? Think of how many different kinds of ads bombard you daily from TV, billboards, magazines, websites, social media, radio, etc.

Make no mistake - advertising is Big Business! The cost of a premium ad in the Washington Post is nearly $200 a column-inch.

? Ask: Who can guess how much it cost for a 30-second ad during the Super Bowl? Answer: in the 2012 Super Bowl, an ad cost $3.5 million.

SUPPLIES
Assortment of magazines with food ads.

Activity 1 – Take A Look At Food Ads

DO (School Age) 15 minutes

Divide the children into small groups. Provide them with an assortment of magazines and have each group cut out a food advertisement. As an alternative, the instructor can pre-select a number of food ads and let each group pick one. Discuss the following questions with the entire group.

? Ask: What is the name and type of product in your ad?

? Ask: Why did you select this ad?

? Ask: What makes this ad appeal to you?

? Ask: Does the ad describe anything about nutrition or good health?

REFLECT (School Age)

Help the children come to the conclusion that ads sell products. It is the responsibility of each consumer to make wise food choices. Refer back to lesson 4, Label Lingo to review how to make wise food choices by reading food labels.

APPLY (School Age)

Ask the children to challenge their families by discussing what food ads they like the best and why. Do these ads influence their families' food choices? Why or why not?

Technology Challenge

(School Age)

Have the children go to the PBSKids website: http://pbskids.org/dontbuyit/advertisingtricks/foodadtricks.html and select "Advertising Tricks" at the top of the page then choose

Lesson 4: Media Mania

between "Design a Cereal Box" or "Create Your Own Ad."

Activity 2 – Advertising Sells!

DO (Middle School) 20 minutes

PREPARATION
10 minutes

SET UP
Make copies of the *Advertising Sells!* handout.

SUPPLIES
- ❑ Flipchart or blackboard
- ❑ Markers or chalk
- ❑ Pencils

HANDOUTS & BOOKS
Advertising Sells A p. 258

Divide youth into small groups and have them think about their favorite food advertisements. These can be ads from TV, radio, magazines, the Internet, etc. Give each youth a copy of the *Advertising Sells!* handout to complete. List the student's favorite food ads. Make a note of the selling techniques involved and which ads were for healthful foods.

? Ask: What is a jingle? Answer: A slogan or piece of music used in advertising that is very memorable. Jingles are used to help you remember the product or service.

? Ask: Can you give me an example of a jingle? Did any of the ads selected use jingles?

REFLECT (Middle School)
Thinking about the ads you discussed in this lesson, describe how advertising affects your food choices.

APPLY (Middle School)
Over the dinner table tonight, share some of the jingles discussed today and see if any influenced your family's food purchases.

Technology Challenge

(Middle School)

Go to this PBSKids website:
http://pbskids.org/dontbuyit/advertisingtricks/foodadtricks.html
Click on "Buying Smart," then select "Hot or Snot" and do the activity. Starting from the home page, analyze an ad by selecting "Advertising Tricks" and then "What's in an Ad?" Follow the directions on the page and click on "Pepsi."

Activity 3 – Create An AD

DO (Teen) 30 minutes

PREPARATION
10 minutes

SUPPLIES
- ❑ Flipchart or

Divide youth into small groups and have each group create a food ad that promotes a healthy food. Have each group present their ad. Here are some key components to consider:

Lesson 4: Media Mania

blackboard
- ❑ Markers or chalk
- ❑ Pencils
- ❑ Paper

HANDOUTS & BOOKS
Advertising Sells A
p. 258

- Decide which type of media you will use: television, radio, newspaper, social media or magazine.
- Describe your audience.
- What will you use to appeal to your audience?
- How will you convey that this is a healthy food choice?

REFLECT (Teen)
? Ask: Do you think that creating your own food ad might make you think twice before responding to an ad in the future?

APPLY (Teen)
Post your ads around the room or in other buildings.

Technology Challenge

(Teen)

This PBSKids website tells you what to ask yourself when you see an advertisement. Select "Buying Smart" and "Question the Commercial."
http://pbskids.org/dontbuyit/advertisingtricks/foodadtricks.html

On the website above, analyze an ad by selecting "Advertising Tricks" and then "What's in an Ad?" Follow the directions on the page and click on "Pepsi."

Lesson 5: Eating Out

PREPARATION
30 minutes

SET UP
See Set Up Details.

SUPPLIES
- ❑ Easel
- ❑ Paper
- ❑ Markers
- ❑ Empty cartons from fast food meals

HANDOUTS & BOOKS
- ❑ *Ten Tips For Choosing Healthy Food When Eating Out* A p. 259
- ❑ *Serving Size Card* A

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Understand that it is healthier to eat less fast food
- Calculate how much fat and calories are in a fast food meal
- Understand how to make healthy food choices at fast food and other restaurants
- Learn at least three ways to reduce fat in fast food meals
- Prepare and sample a quick, convenient and healthy recipe to use at home in place of fast foods

Instructor Essential Information

Americans eat almost half of their meals away from home. Something that was once a special treat is becoming a way of life in our busy society. The challenge is to keep calories under control when eating out. Americans consume approximately three hamburgers and four orders of French fries every week. Busy and cash-strapped families increasingly rely on take-out food for family dinners.

As people eat out more frequently in fast food restaurants or all-you-can-eat buffets, they become accustomed to super-sized portions and think that such portions are normal. The high caloric content of these large servings leads to weight gain. The resulting obesity can lead to many dangerous health problems.

SET UP DETAILS
Before the lesson begins:

- Arrange room with seats in a semi-circle.
- Write the data from the Burger King food chart in the lesson that follows on the board or a flip chart. You can use any fast food restaurant data for this lesson if you can obtain the calorie and fat information. This type of information is usually found in a nutrition analysis chart at the restaurant or on the restaurant's web site.
- Make 2 copies of the *Fast Food - Line 'Em Up* handout. Use one as an answer key. The other one should be cut apart, line-by-line, discarding the calorie column.
- Make copies of the *Toaster Oven Pizza* and *Ten Tips for Choosing Healthy Food When Eating Out* handouts.

Lesson 5: Eating Out

Discussion

DO (All Ages) 30 minutes

? Ask: Did anyone eat at a fast-food restaurant this past week? Raise your hand if you ate out at least once this past week. Have youth look around to see how many people have their hand raised.

? Ask: How many of you like to eat at Burger King? What is your favorite meal at Burger King? After the youth share their favorite foods from Burger King, ask the group if they have ever wondered about the calories or fat in fast food.

? Ask: Has anyone here ever eaten a Whopper with cheese, large fries, and a milkshake? To make a statement about the amount of fat and calories being consumed, show them a bag of these items from Burger King (use empty containers). Using the flip chart or the blackboard, show the amount of fat and calories that this large portion fast food meal has.

Burger King Food Item	Fat Grams	# of Calories
Large Meal		
Whopper	40	670
Fries	22	500
Vanilla Shake	24	760
Total	**86**	**1930**
Small Meal		
Hamburger	10	260
Fries	15	340
Low-fat milk	2.5	100
Total	**27.5**	**700**

Remind youth that the recommended total caloric intake per day for most individuals is between 1600 and 2200. Explain that 65 grams of fat is recommended for someone who needs 2000 calories a day. So, the 86 grams of fat from the large Burger King meal is 1.3 times more fat than a person needs. And this is just the fat from one meal!

Explain that youth will be learning how to consume less fat and

Lesson 5: Eating Out

fewer calories at fast food restaurants by making better choices.

Have them review the Serving Size Card handout and point out that the larger the food item, the more calories it has. To reduce their caloric intake, youth need to choose smaller sized portions from fast food restaurants. Show them another empty carton or bag of small-sized items from Burger King, such as a regular hamburger, small fries, and a container of low-fat milk. Record the calorie and fat content from the table for the small-sized fast food meal from Burger King.

? Ask: How does the total amount of fat and calories of the small meal compare to the large fast-food meal?

? Ask: How does the total fat compare to the recommended amount of less than 65 grams per day?

? Ask: How do the total calories of the large meal compare to 1600-2200 total calories recommended per day? How about the smaller-sized meal?

Activity 1 – Fast Food - Line 'Em Up

DO (All Ages) 20 minutes

Using the cut up strips from the *Fast Food – Line 'Em Up* handout, give each child the name of a fast food item. Have all youth line up, arranging themselves from the highest calorie food at one end of the line to the lowest calorie food at the other, estimating the calorie content of their food. Have youth discuss whether they are in the appropriate place in line.

Next, reveal the actual calorie count for each food and have youth rearrange the line according to the real calorie counts.

? Ask: Were you surprised about any of the calorie counts for the fast food items? Which ones? Did you think they would be higher or lower?

PREPARATION
15 minutes

SET UP
Cut the *Fast Food – Line 'Em Up* handout into strips minus the calorie counts (see Set Up Details).

SUPPLIES
- Index cards
- Scissors

HANDOUTS & BOOKS
Fast Food – Line 'Em Up A p. 260

Now We're Cookin' – Toaster Oven Pizza

(All Ages) 45 minutes

Have youth wash their hands using the *Proper*

SET UP
See Set Up Details.

SUPPLIES
See recipe for ingredients and utensils list.

Lesson 5: Eating Out

HANDOUTS & BOOKS
Recipe: *Toaster Oven Pizzas* A p. 261

PREPARATION

SET UP
Obtain copies of menus from local restaurants.

SUPPLIES
- ❑ Copies of menus from local restaurants
- ❑ Red and green highlighters

HANDOUTS & BOOKS
Clarifying Menu Muddle A p. 262

HANDOUTS & BOOKS
- ❑ *Eating Out And Eating In – Go Lean With Protein* A p. 263
- ❑ *Where's the Fat?* A p. 265

Handwashing steps on page 25.

Give each child a copy of the *Toaster Oven Pizza* recipe and follow the directions to make a personal pan pizza.

Activity 2 – Clarifying Menu Muddle

DO (All Ages) 20 minutes

Discuss the handout *Clarifying Menu Muddle.* Understanding these menu terms can help you reduce the fat and calories when ordering.

Distribute menus from local restaurants. Have youth highlight the terms to avoid in red and the good choices in green.

Technology Challenge

(School Age)

Complete the Where's the Fat activity in the *Eating Out and Eating In – Go Lean with Protein* handout.

Instructor Note: Answers are included with the handout and listed below. Do not share with youth until they have finished the activity.

? Ask: How many grams of total fat are in a quarter-pound hamburger? Answer: 18 grams

? Ask: How many grams of total fat are in a regular hamburger? Answer: 9 grams

Circle the food with less fat. (The correct answer is underlined.)

- Taco salad OR beef soft taco
- Bean burrito with no cheese OR fried fish filet sandwich
- Crispy fried chicken OR hamburger

List three ways you can make low fat choices when you are eating out.

Lesson 5: Eating Out

- Choose grilled, not fried food.
- Choose the smaller-sized portion such as a hamburger versus the quarter-pound hamburger.
- Look at nutrition information provided by the restaurant before making your selection.

APPLY (Middle School)
Use information from the American Heart Association website to make healthier choices of what and where to eat. See the Technology Challenge below.

Technology Challenge

(Middle School • Teen)

Go to the American Heart Association website at http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/DiningOut/Dining-Out_UCM_304183_SubHomePage.jsp and find recommendations on how to choose a restaurant, decipher the menu, and eat healthy ethnic foods. Check it out!

Look again at the menus from local restaurants in Activity 2. According to the American Heart Association website, which restaurants offer healthy choices?

Discussion

DO (Teen) 20 minutes

Introduce teens to the statistics regarding eating out; i.e., Americans eat almost half of their meals away from home and consume approximately three hamburgers and four orders of French fries every week. Busy and cash-strapped families increasingly rely on take-out food for family dinners.

As people eat out more frequently in fast food restaurants or all-you-can-eat buffets, they become accustomed to super-sized portions and think that such portions are normal. The high caloric content of these large servings leads to weight gain. The resulting obesity can lead to many dangerous health problems.

Discuss how advertisements encourage you to make food choices.

? Ask: Which food ads grab your attention? Why?

Lesson 5: Eating Out

PREPARATION

5 minutes

SUPPLIES

- Flip chart
- Paper
- Pencils
- Props for staging youth commercials

? Ask: What motivates you to select fast food?

? Ask: What are healthier alternatives to high calorie and high fat fast foods that you like? Are they advertised on television or social marketing sites?

Activity 1 – Lights, Camera, Action!

DO (Teen) 60 minutes

Divide youth into working groups of 3-5 teens. Have teens develop a television commercial promoting a healthy fast food restaurant. The restaurant may be fictitious or an existing restaurant or chain. Challenge each group to be creative, informative, and explicit in the types of foods they would offer at this establishment. Have each group present their commercial. Vote for the best healthy restaurant commercial!

APPLY (Teen)
Collect fast food nutrition charts and bring them to the next meeting to discuss what you discovered about your favorite fast food meals.

Technology Challenge

(Teen)

Here are two sites teens can use to select and evaluate fast food meals: http://healthchecksystems.com/ffood.htm and http://www.calorieking.com/foods/.

Lesson 6: New And Unusual Foods

Why Not Give It a Try?

PREPARATION

20 minutes

SET UP

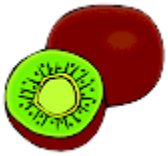
- ❑ Check out the website listed in Set Up Details.
- ❑ Contact the grocery store manager and arrange for a grocery store tour.

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Discover new and unusual foods via a grocery store tour
- Encourage youth to taste some unfamiliar fruits, vegetables and grains

Instructor Essential Information



Research shows that only a very limited number of youth are eating the recommended amounts of fruits, vegetables and whole grains each day. Many grocery stores offer tours that include learning about foods, both familiar and new varieties. Contact your local supermarket manager to schedule a tour for your group. Ideally, the tour should be done in advance of the activities and discussion in this lesson.

SET UP DETAILS

For the New Foods Taste Test activity, gather a variety of foods that the youth may not be familiar with such as: mango, yellow, orange or red peppers, kiwi, pineapple, star fruit (carambola), snap peas, pomegranate, fresh fennel, asparagus, sweet potatoes, whole grains such as quinoa, barley, couscous, whole grain cereals, whole wheat bread, whole wheat pitas, whole wheat tortillas, and whole wheat English muffins. Soy products are another category of foods that may be introduced. Set up tasting stations. Have the fruits, vegetables and whole grains cut and/or prepared into tasting portions.

Print a copy of the recipes so you can gather all the ingredients and supplies in advance.

- School Age - *Insect Infested Log*
- Middle School - *Savory School Paste*
- Teen - *Garbage Pasta Salad OR Crazy Mix Veggie Burgers*

Discussion

DO (All Ages) 15 minutes

The best way to give your body the balanced nutrition it needs is by eating a variety of nutrient-packed foods every day. Although we all have our favorite fruits, vegetables, and grains, there are new

Lesson 6: New And Unusual Foods

and unusual varieties of these foods available in grocery stores and at farmers markets.

? Ask: Who likes to try new foods? What was the last new food you tried? Did you like it or not? What was the best new food you ever tried?

PREPARATION

2 hours to gather a variety of different foods.

SET UP

See Set Up Details.

SUPPLIES

- ❑ Cutting boards
- ❑ Knives
- ❑ Colanders
- ❑ Bowls
- ❑ Plates
- ❑ Forks
- ❑ Napkins
- ❑ Pencils
- ❑ Food for the taste tests (See Set Up Details.)

HANDOUTS & BOOKS

New Foods Taste Test A p. 267

Activity 1 – New Foods Taste Test

DO (All Ages) 30 minutes

Conduct a taste testing session using the new and unusual foods that you bought. Divide the youth into groups and have them circulate through the food tasting stations. Have the youth complete the *New Foods Taste Test* handout as they circulate through the food stations.

SUPPLIES

See recipes for ingredients and utensils list.

HANDOUTS & BOOKS

- ❑ Recipe: *Insect Infested Logs* A p. 268
- ❑ Recipe: *Savory School Paste* A
- ❑ Recipe: *Garbage Pasta Salad* A

Now We're Cookin' – Recipe Round Up

(All Ages) 45 minutes

Have youth wash their hands using the *Proper Handwashing* steps on page 25. Print copies of recipes and have youth prepare one or more of the dishes shown at left. Recipes are in Appendix A.

REFLECT (All Ages)

Review the scores the youth gave to the unusual fruits, vegetables and grains on the taste test. Have youth decide which new foods they might incorporate in their diets.

Lesson 6: New And Unusual Foods

- Recipe: *Crazy Mix Veggie Burgers* A

APPLY (All Ages)

? Ask: How could you include some of these new foods into family meals? Are there any foods that you regularly eat that others may consider new or unusual?

Technology Challenge

(All Ages)

Go to http://www.kidnetic.com. Select "Bright Papers," then "Totally Weird Ways to (Fruit and) Vegetable Out." Have students select one of the activities, download it, and try it at home.

Lesson 7: It's All About Size

Portion Distortion

PREPARATION
60 minutes

SET UP
Set up the two measuring stations.

SUPPLIES
- ❑ Bread
- ❑ Ice cream
- ❑ Potato chips
- ❑ Mega muffin
- ❑ Monster cookie
- ❑ Large bagel
- ❑ 20-oz. soda bottle
- ❑ Microwave popcorn
- ❑ Sets of measuring cups
- ❑ Paper plates
- ❑ *MyPlate* poster (reverse side has serving information) RL
- ❑ *Serving Size Card* p. 273 A

Station 1
- ❑ Small bowl
- ❑ Large plate
- ❑ 6-ounce glass
- ❑ Cold cereal
- ❑ Cooked pasta
- ❑ Juice

Station 2
- ❑ Large bowl
- ❑ Small plate
- ❑ 12-oz. or larger glass
- ❑ Cold cereal

(continued next page)

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Define normal versus distorted portion sizes
- Recognize how super-sized portions can contribute to overeating and weight management issues
- Recognize and choose foods of appropriate portion sizes

Instructor Essential Information

The rising incidence of obesity is well documented in the United States today. We know that over consumption of food and lack of physical activity are major contributing factors. Some common examples of how increased portions lead to excess calorie intake are illustrated in:

- The larger portion sizes of sodas
- Fast food super-sized portions
- All-you-can-eat buffets
- Popcorn at movie theaters

Outrageously big portion sizes can be found everywhere, and the most commonly super-sized foods are those high calorie foods that provide little nutritive value.

This lesson will focus on the difference between a portion and a serving. Think of a portion as the amount of a specific food you choose to eat at a meal or for a snack, whereas a serving is the recommended unit of measure found on the Nutrition Facts Label. Refer to the resources for this lesson to see the recommended servings for each food group.

Discussion

DO (School Age) 20 minutes

? Ask: What is the difference between a portion and a serving?
Answer: A portion is the amount of a specific food you choose to eat at a meal or for a snack. A serving is the unit of measure used to describe the amount of food recommended from each food group. Use the *Serving Size Card* handout to illustrate recommended serving sizes.

Lesson 7: It's All About Size

- ❑ Cooked pasta
- ❑ Juice

HANDOUTS & BOOKS
Portion Control: Sizing It Up! A p. 272

PREPARATION
20 minutes

SET UP
Set up the food measuring stations with foods youth like such as ice cream, popcorn, chips, and cereal. Choose foods with serving size indicated on the label.

SUPPLIES
Select youth's favorite foods.

HANDOUTS & BOOKS
A Measured Serving A p. 274

HANDOUTS & BOOKS
Serving Size Card A p. 273

Discuss the *Serving Size Card* and the *Portion Control: Sizing It Up* handout.

? Ask: Do you see a difference between the recommended serving sizes and what you eat at home or when dining out? Are the recommendations larger or smaller than your normal portions?

Activity 1 – You Do The Measuring

DO (All Ages) 30 minutes

Divide youth into two groups. Have Group 1 begin at Station 1, and Group 2 at Station 2. Have them fill the containers and measure the amounts they used for a portion of each of the three foods (cold cereal, pasta and juice). Discuss what constitutes a serving of cereal, pasta and juice according to the MyPlate recommendations.

Activity 2 – Looks Like A Serving To Me!

DO (Middle School • Teen) 20 minutes

Provide numerous food items for the youth to measure. Give each youth a copy of the *A Measured Serving* handout. Tell them to move from station to station and take an amount that represents their "normal" portion of that food. Have them measure the amount they took. Then, have youth read the label on the food container and write down the amount in one serving. Answer the questions on the handout.

Technology Challenge

(All Ages)

Go to the National Heart, Lung, and Blood Institute (NHLBI) website at: http://hin.nhlbi.nih.gov/oei_ss/menu.htm#sl2 and click on "Portion Distortion II" Slide Show," then "View Online." Begin the

Lesson 7: It's All About Size

slide show and take the "Portion II Interactive Quiz."

Go to this Department of Health and Human Services, National Institutes of Health, web site: http://hin.nhlbi.nih.gov/portion/keep.htm. Click on "Download a Serving Size Card." Print this card, review it, and take it home to share with your family and friends!

PREPARATION
30 minutes

SET UP
Have food items ready for students when they come to the lab.

SUPPLIES
- Computer paper
- Pencils

HANDOUTS & BOOKS
Task Sheets for the *Portion Scavenger Hunt* A p. 275

Activity 3 – Portion Scavenger Hunt

DO (Teen) 60 minutes

Youth will participate in a Portion Scavenger Hunt. This takes place in several locations and will require a field trip to the computer lab, a fast food restaurant, and a convenience store.

The Task Sheets for the Portion Scavenger Hunt can be found in Appendix A. They come from the Wellness In The Rockies web site: http://www.uwyo.edu/wintherockies/default.html

Have youth select partners and each team can use a different Task Sheet. The sheets are in PDF format and include:

- Activity Instructions
- Task Sheet for Candy Bar
- Task Sheet for Chips
- Task Sheet for Cookie
- Task Sheet for Fries
- Task Sheet for Muffin
- Task Sheet for Pop (Soda)
- Task Sheet for Popcorn

Youth will be directed to go to a fast food restaurant and a convenience store with a task sheet for candy bar, chips, cookie, fries, muffin, soda pop, or popcorn.

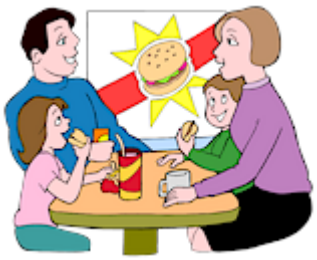
REFLECT (Teen)
At the next meeting, have youth report on what they discovered about their food product.

APPLY (Teen)
Ask teens to report one finding to a friend or family member.

Lesson 7: It's All About Size

Resources

- Available as a handout (in bulk in tablet form, or as a poster): *Handy Portions,* Learning Zone Xpress 1-888-455-7003 can be found at http://www.learningzonexpress.com.
- Reproduce the slides from one of the two Portion Distortion Slide Shows at http://hin.nhlbi.nih.gov/oei_ss/menu.htm#sl2 with portion recommendations for each food group.



Chapter 5 Activity for Life

Introduction

Chapter 5 teaches youth how to create a healthier lifestyle and to collaborate with friends, family, and community while doing so. Youth will learn how to organize a walking club, a wellness event, and participate in games that challenge them to be physically active. This chapter illustrates how easy it is to stay physically active using simple equipment such as jump ropes, Frisbees, or no equipment at all. The activities also incorporate team building and cooperation.

Youth are introduced to Native American dances along with more traditional cultural dances enjoyed by their parents and grandparents. They learn that dancing can be a fun part of staying fit and allows the expression of emotions. Chapter 5 is also a review of some basic nutrition and fitness concepts from earlier chapters. This chapter culminates in having youth plan and carry out an actual wellness event for their community, Center, or base.

Lesson Summary

1.	Walk Your Way to Fitness	Fitness
2.	Let's Play Outside: Everyday Fun Activities	Fitness
3.	Jump Into Fitness	Fitness
4.	Dancing for All Seasons	Fitness
5.	Cooperative Play	Fitness
6.	Planning a Wellness Event	Fitness

Lesson 1: Walk Your Way To Fitness

PREPARATION

5 minutes

SET UP

Set up easel or use walls to hang self-stick paper.

SUPPLIES

- ❑ Pedometers for each participant
- ❑ Easel and markers
- ❑ Pencils
- ❑ Pens

HANDOUTS & BOOKS

- ❑ *Goal Setting Worksheet – School Age Youth* A p. 284
- ❑ *Goal Setting Worksheet – Middle School And Teen* A p. 285
- ❑ *Progressive Walking Marathon Log Sheet* A p. 286

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Learn about the importance of social support in making healthy lifestyle changes
- Understand the health benefits of walking
- Learn how to create a walking club
- Practice using a pedometer
- Participate in a walking activity

Discussion

DO (All Ages) 10 minutes

? Ask: Has anyone ever had to learn a new and difficult skill such as riding a bike, solving a math problem, learning a sport, or learning how to cook?

? Ask: Has anyone ever tried to stop a bad habit such as biting your nails, eating too many sweets, or leaving your clothes on the floor? Would someone share their experience?

? Ask: Did you have help? Or, were you able to change your behavior on your own? What did the supporter do that helped you?

Explain to the youth that people learn in different ways. Some individuals learn more easily by themselves while others learn better if they have a buddy or someone to support them while they are practicing and learning the new skill. Friends or family can be good partners and supporters when a task seems difficult. This is particularly true when you are trying to start a healthy habit, like starting a walking program or eating less junk food. A friend who also wants to make a positive change in their life can offer moral support when your own commitment might be faltering. A friend can encourage you to get out and play when you might be feeling a little lazy.

? Ask: Why is walking a good way to get exercise? Answers: it's easy, you can walk almost anywhere, it doesn't take any special equipment except a good pair of sneakers, you can do two things at once such as walk and shop, walk and visit with your friends, walk the dog.

Emphasize that walking helps people manage their weight and makes them feel and look better. Exercise in general, including walking, has been linked to reduced risk for heart disease, high

Lesson 1: Walk Your Way To Fitness

blood pressure, diabetes, osteoporosis, and some forms of cancer.

? Ask: If you were successful at learning the new skill or behavior why do you think that was so? Allow time for youth to discuss what other suggestions they have about how to be successful at making healthy lifestyle changes.

Explain that the best way for a behavior to become a daily habit is by taking it "one step at a time" i.e. setting small measurable goals. Sometimes when people want to add a new healthier behavior in their lives, such as increasing their daily activity, they set big, unrealistic goals, which can cause them to feel frustrated when they can't meet them. Tell youth that it is much easier to set a series of small goals, which can be easily accomplished before moving on to tougher ones.

For example, sometimes people who want to lose weight give up their favorite foods (such as ice cream) altogether instead of eating smaller portions of these foods less frequently. They usually aren't able to stick to such a strict diet because they miss the food they like so much. They end up not feeling good about themselves and go back to eating as they were before. A better choice might be to eat more healthfully by increasing fruit and vegetable consumption, limiting soda, and taking smaller portions of the ice cream.

? Ask: Can you think of ways to increase how much you walk? Tell youth that there are many ways to increase daily steps. Have them use their imaginations to come up with their own list. Write their ideas on an easel. Examples: take a walk with a friend, walk the dog, use stairs instead of an elevator, walk to school or the store, start a walking club, walk over to visit a friend or relative, walk around the garden.

Activity 1 – Walking With A Pedometer

DO (All Ages) 20-45 minutes

Ask youth to form groups of two to four. Give each youth a pedometer. Tell them to push the "reset" button. Tell everyone that before beginning, their pedometer should read "0."

Show youth the correct technique to attach the pedometer to their waistband or belt. It should be positioned midway between their hip and belly button, right above the knee.

Tell the youth that they are going to walk with their pedometers for 15 minutes without stopping to see how many steps they take

Lesson 1: Walk Your Way To Fitness

during that time. Remind them that the faster they walk, the more steps they will attain. Have youth walk around the room, outside, up and down the halls, or wherever they can walk continuously for a 15-minute period.

Emphasize that sometimes when you are very busy with school and other activities, you might only have time for a quick 10-15 walk, but any walking is beneficial. Combining several smaller walks with some other activities can add up to the recommended 60 minutes of daily moderate activity (or 10,000 steps) that all young people should have.

Reassemble the group after 15 minutes and have everyone remove their pedometers. Discuss how many steps their pedometers registered during the 15-minute period.

Tell the youth that depending upon their age and height, approximately 2,000 steps = 1 mile. If time permits, ask everyone to reset their pedometers to zero and walk around the area until their pedometers register 2,000 steps.

(Teen)
Explain to the youth that research shows that people who walk 10,000 steps per day can achieve the positive health benefits outlined earlier. Most Americans, including teenagers, do not walk 10,000 steps a day. In fact, they only walk about 2,000 steps. One way to track your steps is to use a pedometer to see how far you are walking.

Instructor Note: If pedometers are not available, approximate the distance by using the formula: 20 minutes of walking = 1 mile.

Lesson 1: Walk Your Way To Fitness

Activity 2 – Goal Setting

DO (School Age) 20-30 minutes

To illustrate the difference between setting realistic and unrealistic goals, read the following story to the children:

Scenario:
Natasha Jones is 10 years old. Her mother and father think she is spending too much time watching television and not enough time actively playing. Her parents have decided that her daily screen time will be limited to one hour and that she must make an effort to get outside and "play" more. Natasha decided that she would like to play on a recreational soccer team that practices in her neighborhood. After watching the team practice, Natasha believes that she might be too "out of shape" to play the game and will be embarrassed if she tries. Natasha wants to be able to run as far and as long as the other children on the team. She has decided she is going to get in better shape by running two miles every day after school.

? Ask: Do you think Natasha has set a realistic goal for increasing her activity level? Why or why not?

? Ask: Can you suggest another goal for Natasha?

? Ask: What other recreational activities would you suggest for Natasha if she decides not to join the soccer team?

? Ask: Would Natasha be more likely to enjoy her new activities if some friends join her?

Pass out pencils and the *Goals Setting Worksheet – School Age Youth* handout. Ask for volunteers to share their answers. Discuss whether the goals are realistic. Why or why not?

Lesson 1: Walk Your Way To Fitness

Activity 3 – Goal Setting

DO (Middle School • Teen) 20-30 minutes

To further illustrate the difference between setting realistic and unrealistic goals, read the following story to youth.

Scenario:
James Duncan is a 14-year-old high school freshman. He has tried out for the wrestling team but needs to lose 10 pounds to "make his weight." The coach has suggested that he skip breakfast and lunch for a few days, and just eat a protein bar and salad for dinner. The coach has also recommended that James limit his fluid intake for the next several days. James has one week to lose the weight.

? Ask: Do you think James' goal of losing 10 pounds in four days is realistic? Why or why not?

? Ask: Do you think James will make his weight? Why or why not?

? Ask: What are some factors that might affect James' performance if he wrestles for the high school wrestling team after several days on this diet?

? Ask: What would you recommend as an alternative strategy for James to make his weight goal? Possible answers: increase exercise, fruits, vegetables, and whole grains; eliminate sauces, choose grilled meats.

Pass out pencils and the handout: *Goals Setting Worksheet – Middle School and Teen*. Have youth take a few minutes to answer the questions. Ask for volunteers to share their answers. Discuss whether the goals are realistic goals. Why or why not?

Activity 4 – Walking Club

DO (All Ages) 30 minutes

Discuss with youth the idea of setting up a walking club at the Center or in their neighborhood. If youth are interested, have them work as a group to develop two to three goals for the walking club. Write their goals on a large piece of paper and post them in a place where the youth will see them on a daily basis.

Lesson 1: Walk Your Way To Fitness

Here are some sample goals for the "Space Walkers" walking club:

- Space Walkers will meet at least twice a week for the first four weeks.
- Space Walkers will get sponsors for each mile walked to support a local charity.
- Space Walkers will sponsor a walk-a-thon to raise money for a celebration.

? Ask: Are the Space Walkers' goals realistic? Why or why not?

? Ask: Do the Space Walkers have goals in which everyone can experience success?

? Ask: Can you think of any obstacles the Space Walkers might need to overcome for the group to be a success?

Instructor's Note: One possible activity for the walking club might be to try and complete a walking marathon, which is 26.2 miles. The total miles can be completed over a 14-week period. For very young children, consider a parent-sponsored 5-mile walk-a-thon. Refer to the *Progressive Walking Marathon Log* handout for suggested weekly mileage amounts. Discuss how many times per week the youth will walk and if they might combine walking with other activities.

REFLECT (All Ages)

? Ask: Without telling us the name of the person, or where they live, do you know anyone who has ever successfully stopped a difficult behavior such as smoking or overeating? Were they successful on the first try? How did this person's family and/or friends help them or make it more difficult for them?

APPLY (All Ages)

Ask youth to track their daily steps on a pedometer if they have one. If they don't have a pedometer, have them estimate their daily mileage based on the formula that one city block is approximately equal to 1/10 of a mile (10 blocks = 1 mile). Or use the formula: 20 minutes = 1 mile. Have youth think about a realistic goal for increasing their steps or mileage. Have youth list three to five routine tasks in which they could increase their steps by making small changes.

Lesson 1: Walk Your Way To Fitness

Technology Challenge

(All Ages)

You don't have to walk to increase your steps! Visit www.kidnetic.com and click on "Move Mixer" and then again on "Move Mixer." The Move Mixer Dance Creation Tool lets you design your own dance with music and then dance along. Have fun combining several dance steps and impress your friends with your new dance "moves."

Lesson 2: Let's Play Outside

Everyday Fun Activities

PREPARATION

5 minutes

SET UP

- ❑ Set out an assortment of play equipment that might be available at home such as balls, jump ropes and hula-hoops
- ❑ Identify and label 10 Frisbee "golf holes"

SUPPLIES

- ❑ Play equipment (see Set Up)
- ❑ Two large hula-hoops
- ❑ 4-5 Frisbees
- ❑ Marker and paper to label Frisbee golf holes
- ❑ Paper
- ❑ Pencils

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Learn that playing actively is an important part of staying healthy
- Recognize that screen time should be limited to less than two hours each day
- Design a group play activity where all members of the group have active roles
- Participate in active, easy, games

Discussion

DO (All Ages) 10 minutes

? Ask: Who is willing to share good memories of a time when they were playing outside with friends and/or family? What makes it a good memory? What activities were you doing? Examples: a family picnic in the park, a neighborhood game of kickball or softball, playing football or soccer with your family members, riding bikes through the neighborhood.

Actively playing with friends and family can help keep you healthy and strong. Many youth spend too much time indoors playing video games or watching television and don't get the recommended one hour of moderate physical activity every day.

? Ask: How do you spend your free time after school and on the weekends? Do you play video or computer games? Is your free time spent with friends? Do you watch much television? Do you play outside?

More than two hours per day of screen time for children and teens can be associated with poor health. Remind youth that bodies of all ages need at least 60 minutes of moderate physical activity each day to remain healthy. One of the best ways to achieve this goal is to limit time spent in front of computers, video games, and television and go outside and play!

Lesson 2: Let's Play Outside

Activity 1 – The Use-Your-Imagination Game

DO (All Ages) 30 minutes

Divide the youth into groups of four to six. Tell them that they are going to become inventors and create a game. Have each group pick at least three pieces of play equipment from the choices available. Instruct each group to spend five to seven minutes designing a game. Ask them to give their game a fun name. There are only three rules:

- Each game should last at least 10 minutes.
- Each member of the group should be an active participant.
- The three pieces of equipment must be incorporated into the game.

Allow each group a few minutes to practice their activity. After this, have each group tell the name of their game, provide a demonstration, and teach it to the whole group. If there is time, let all the youth try out all of the games.

SET UP

The best place for this activity is in a gymnasium or outside.

Activity 2 – Frisbee Golf

DO (All Ages) 30 minutes

Identify 10 "holes" that will make up your Frisbee golf course. A "hole" can be a piece of paper with a number on it, a chair, a tree, a spot on the wall or whatever you choose. Label each hole from 1 to 10. Decide the par (points given) for each hole. To simplify the game, you may make all holes be a standard 3 par, or, the par may change depending upon the difficulty of the throws.

Divide youth evenly into teams. Designate a scorekeeper for each team and give him/her a paper and pencil to keep score for each member of their team. The object of the game is to hit the holes with the Frisbee. The throw for the first hole is taken from a designated starting spot. Subsequent throws are taken from each subsequent hole. For example, a youth would stand at Hole 2 to throw to Hole 3. The winner is the individual or team with the lowest score, which will be the fewest overall throws used to hit their holes (targets).

This game can be played as a competition between teams or among the youth on each team. If you have a large group, start half of the teams at Hole 1 and the other half at Hole 6 so that youth are not waiting too long for their turns.

Lesson 2: Let's Play Outside

Stress to the youth that the form they use to throw the Frisbee is not important; the goal is hitting the target. Whatever method of throwing that gets the Frisbee to the target is acceptable. This way, those youth who are not skilled at Frisbee throwing will feel less intimidated. It also adds a fun factor to the game because some unskilled youth will be successful using unusual throwing methods to hit the holes.

Activity 3 – Pass the Hula-Hoop

DO (All Ages) 15 minutes

Have youth line up holding hands with the person next to them. This can be done (and is more fun) with two lines of youth lined up and facing each other. Start at one end and put the hula-hoop over the head of the first youth. Have that youth wiggle the hula-hoop any way possible to the next person, and so on down the line. The hula-hoop can be passed over their heads, under their legs, and across linked arms, but youth must keep their arms linked. Once the hula-hoop gets to the end, have them pass it back to the beginning in the same way.

REFLECT (School Age)

? Ask: What kinds of physical activities do you think your grandparents did when they were your age?

REFLECT (Middle School • Teen)

? Ask: Would you say that your generation is generally healthier or unhealthier than your parents' generation? Why?

APPLY (All Ages)

Ask youth to keep a log of their screen time for one week (TV, texting, computer, video games). Ask them to try and replace some of that time with active play and/or sports. Have them report back on their successes.

Lesson 2: Let's Play Outside

Technology Challenge (All Ages)

Have youth create a list of all the fun activities, games, sports, and events that they can do after school and weekends - both inside and outside. Use a search engine such as Google http://www.google.com or Yahoo http://www.yahoo.com to find this type of activity. Make sure they include the instructions for the activity in their list. The inside list should include active games or activities that can be done inside. The outside games should involve lots of movement across a large space and require minimal equipment. **Hint:** Physical education sites work well for this search and include many already-planned fun activities for groups and individuals.

Lesson 3: Jump Into Fitness

PREPARATION

5 minutes

SET UP

See Set Up Details.

SUPPLIES

- ❑ Copy paper
- ❑ One jump rope for each child
- ❑ Enough longer jump ropes to have 1 for every 3 youth. Length of rope: 16'
- ❑ Pencils
- ❑ CD player
- ❑ A variety of music: upbeat and relaxing

HANDOUTS & BOOKS

- ❑ *Heart Rate Log* A p. 205
- ❑ *Heart Rate Chart* RL

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Learn games while developing basic jump roping skills
- Understand the cardiovascular and muscle-building benefits of jumping rope and how it can fit into a total fitness plan
- Learn the basics of single rope jumping and double rope jumping
- Learn about rope jumping team activities offered through competitive Double Dutch programs for youth
- Understand how jumping rope can contribute to improved balance and greater strength

Instructor Essential Information

The duration and intensity of the exercises in this lesson may need to be adjusted to accommodate different fitness levels of the youth. The instructor should always provide water breaks during these activities. The breaks should be more frequent in warm weather.

Jumping rope is a fun, inexpensive way to improve cardiovascular health and build muscle. Youth and adults of all ages can benefit, whether they do basic two-foot jumping, rope skipping, or any of the many intricate variations that have been developed for single and double rope jumping.

More information about Jumping Rope can be found in: *Jump Rope: A Basic Instruction Guide* published by USA Jump Rope. Their website is: http://www.usajrf.org. You may be especially interested in Double Dutch Jumping. You can find information at: http://www.nationaldoubledutchleague.com/index.html

This lesson builds on the jumping rope activities found in *Chapter 1, Lesson 4: In Beat - The Heartbeat*. Refer back to that lesson to help youth calculate their heart rates before they begin this lesson. If there are youth who are very proficient rope jumpers, you may look up more advanced steps and routines for them to try at any of the many online sites.

SET UP DETAILS

The best place for the jump rope activity is a large room with a dry smooth floor made of wood, tile, or matted material. A smooth outdoor surface can be used. Each youth will need a jump rope. The proper rope length for each youth can be determined by having them stand in the center of the rope and checking to see if the handles reach up to their armpits.

Lesson 3: Jump Into Fitness

Discussion

DO (All Ages) 45 minutes

Review the warm up exercises and jump rope skills youth learned in the lessons in *Chapter 1, Lesson 4: In Beat - The Heartbeat*. Go over the method of taking a heart rate on page 30. If they have not done this lesson, it would be good to introduce youth to the information in it as an orientation to this lesson.

Ask for a youth to volunteer to be the leader and begin to play slow relaxing music. Ask youth to follow the leader in warm up exercises including stretches of arms, legs, shoulders and neck. Change the music to a more upbeat tempo. Divide youth into groups of 6-8 members. Give each team one of the 16' ropes. Youth will take turns being the rope holders.

Activity 1 – Learning The Ropes

DO (All Ages) 30 minutes

Have youth lay their rope flat on the floor and then line up next to it. Have them jump with feet together back and forth across the rope at least five times.

Next, have two youth become rope holders as they hold the ends of the rope and move it "like a snake." The other youth jump across the rope, one by one, without touching it. They continue jumping over it, making a large circle as they jog around for their next turn. Repeat until each youth jumps "the snake" at least five times.

The rope holders raise the rope about 6 inches above the floor and youth jump back and forth across the rope at least five times. Next, rope holders again wiggle the rope "like a snake" up and down and back and forth, while youth jump across it without touching it in the same pattern as they followed in the previous exercise.

The rope holders lay two ropes on the floor or ground parallel to each other about six inches apart. Each youth jumps across the "river." The rope holders increase the distance between the ropes by three inches on each subsequent jump until no one can jump the "river". Youth can use any style of jumping they choose at this point to get over the river.

Using one of the longer ropes, have the jumpers form one line perpendicular to the rope. The rope turners begin to turn the rope - first one loop towards the line of jumpers, then one time away from the jumpers. The jumpers do not jump the rope; they just run

Lesson 3: Jump Into Fitness

under it. As the rope is reversed, they come back under it while never letting the rope touch them. This can be done in groups. For example, while one jumper is going under and back again, another jumper jumps in and they go under and back again together. Continue adding another jumper with each pass. The game ends when a miss, or a touch of the rope, occurs. Then, the entire group goes to the end of the line, and the one at the front of the line begins the game again.

Activity 2 – Team Jumping

DO (All Ages) 20-30 minutes

Divide group into teams of three and give each team a 16' rope. Members of the team practice turning the rope at different speeds, touching the floor or ground each time and creating a full arc with the rope. All three members should participate in this.

After they can all turn the rope smoothly, one youth stands next to the rope and the other 2 begin to turn. Turners say "Jump!" when the rope nears the floor. Each jumper continues until he or she can jump at least three consecutive jumps. Then they jump out. Team members switch positions until all youth have reached the goal. If teams finish early, they can continue to jump, setting their own targets, until all youth in the class have reached the goal.

Next, distribute the short ropes to each youth for individual jumping. Have them jump for one minute then rest.

Have youth calculate their heart rates and record them on the *Heart Rate Log* as they learned to do in *Chapter 1, Lesson 4: In Beat – The Heartbeat.*

Next, for those who want to try, challenge youth to jump for up to two minutes without stopping. Have youth jump for five sets of either:

- One minute of jumping, one minute rest, OR
- Two minutes of jumping, two minutes rest

Youth should check their heart rate after each set.

Activity 3 - Follow the Leader Game

DO (School Age Middle School • Teen) 20 minutes

Lesson 3: Jump Into Fitness

Bring small groups back together into one group. Youth will take turns being the rope holders. Using one 16' rope, have the jumpers form a line perpendicular to the rope. Have each youth jump into the turning rope, jump several times, and then jump out. When everyone has had a turn, teach youth the following game.

Jumpers form one line to enter the rope near one of the turners. The first youth jumps into the rope, jumps once, and exits on the diagonal going around the turner to form a new line. As the first jumper is exiting the rope, the next jumper in line enters and jumps the rope once in a "follow the leader" fashion, taking his/her place behind the leader after jumping out. This continues until all the jumpers are in the new line. As the last jumper exits the rope, the first jumper enters the rope again and repeats the process, making a figure 8.

As youth become skilled in this exercise, the leader should begin to add motions during their jump. This might be a clap of the hands, putting hands on hips, jumping on one foot, crossing arms over chest, or whatever else they would like to try. Be sure that the moves the leaders are making are not too difficult for the participants.

This game can be played non-competitively or competitively as an elimination game, depending on the skill level and interests of the youth. If you choose to eliminate youth for missing their turn or not following the leader, be sure that you have single ropes available for those youth to practice jumping while the Follow the Leader game continues. You also could go onto the Double Dutch activity and let those who are out of Follow the Leader begin learning how to jump with two ropes.

If you want the game to be competitive, set a goal to see who can last the longest while following the leader. They have to jump in and out each time it's their turn. As the line gets shorter from eliminations, rope holders may turn faster. If the leader is eliminated, the next person in line takes over as the new leader. The last three youth still jumping are the winners. Remember, each turn of the rope must have a jumper jumping in, jumping one time, and exiting while the next jumper jumps in. This is a great game for older School Age children and Middle School youth.

Activity 4 – Double Dutch

DO (School Age Middle School • Teen) 15-20 minutes

After youth have finished the game, divide them into groups of three. Give each group two long ropes. Ask them to practice

Lesson 3: Jump Into Fitness

turning the ropes in towards the other. This type of rope turning is called Double Dutch. Be sure that all three youth master this skill.

? Ask: What is different when you are jumping with two ropes compared to one rope? Possible answers: some side-to-side motion, tempo increases, feet can jump separately or together.

Select teams of three and have one youth stand in between the two ropes. Turners begin to turn the ropes, saying "Jump." After each youth has successfully jumped at least four jumps with two ropes, let the youth choose whether they wish to continue with two ropes or go back to one. The jumper can also jump into moving ropes rather than starting to jump when the ropes are still. This will help the turners and the jumper to understand the motion and rhythm of the ropes.

Activity 5 - Jump Into Fitness

DO (Middle School Teen) 20-25 minutes

Each team will create a fitness routine for a selected audience using the jump ropes. Youth will:

- **Select a target audience** such as athlete, gymnast, wrestler, baseball player, soccer player, etc. The target audience could also be someone who is not very active (a couch potato) or whomever else they choose.
- **Develop a jump rope plan** that would be beneficial to that audience. Ask youth to consider what they have learned in previous lessons, and what they know about jumping and its benefits. Consider a program that improves endurance, strength, and balance for the audience selected.

This exercise has no right or wrong answers, but common sense should prevail. For example, a gymnast might have a program that includes jumping on one foot or doing deep knee bends while jumping or turning around while in the rope. A soccer player might work up to 10-15 minutes of straight jumping over a course of several weeks. A beginner might start with simple jumping for 30 seconds, then have 30 seconds rest. They might increase their jumping time over several sessions.

Each group will report back on their fitness plan and demonstrate their program. Each member of the team should participate.

Lesson 3: Jump Into Fitness

Activity 6 – Cool Down

DO (All Ages) 5-10 minutes

Put on relaxing music. Have youth do the following cool down exercises. Remind the youth that they need to cool down their muscles after strenuous activities to help their bodies return to a resting condition.

Have youth first stretch one arm to the ceiling, reaching higher and higher. Have them raise their other arm to the ceiling stretching upward. Have them stretch both arms, lifting them higher and higher, and holding the stretch for at least 15 seconds.

Tell youth to sit on the floor with their legs stretched forward and their backs straight. Have them reach toward their feet, keeping their backs straight and their heads in line with their spine. Hold this stretch for at least 15 seconds.

Next have youth lie on their backs and stretch their arms overhead. Have them hold this stretch for at least 15 seconds.

REFLECT (All Ages)

? Ask: What do you think makes rope jumping an especially good aerobic (heart healthy) exercise? What makes it a muscle-building exercise? Examples:

- Jump rope requires you to breath faster and more deeply as you get tired, thus the heart works harder
- Each time you hit the ground, you are putting the full weight of your body onto your leg muscles
- Each time you jump up you are using muscles to lift up your weight
- The heart is a muscle
- Over time, bones are made stronger when legs make impact with the ground

? Ask: Do you think “Double Dutch” jumping is more or less strenuous than single jump roping? Why or why not?

APPLY (All Ages)

Youth should jump rope at least four days per week until the next lesson. For each rope jumping set, they should record their resting

Lesson 3: Jump Into Fitness

heartbeat and then calculate their heart rate after jumping. Remind them to do their warm up and cool down exercises. Ask youth to bring their *Heart Rate Logs* to the next class.

REFLECT (Teen)

? Ask: Can you think of some benefits of jumping rope that might not be obvious? Examples:

- Increases your ability to concentrate
- Develops a sense of rhythm and timing
- Helps with balance and coordination
- Doesn't cost much money
- Can be done anywhere and you can carry your rope with you
- Can be done alone or with others

APPLY (Teen)

Each teen should create a jump rope fitness plan for themselves before the next session based on their own needs and level of fitness. The plan should include jumping at least four days per week. Ask youth to bring their heart rate logs to the next session.

Technology Challenge

(Teen)

Have youth visit the web sites listed below to find new games and activities.

RESOURCES

- *So, You Want to Learn How to Double Dutch, How to Jump, Judge and Make Adjustments*, Roberson-Williams, Judy, Dorrance Publishing Co., Inc., Pittsburgh, 1994.
- http://www.livestrong.com/article/238867-jump-rope-activities-for-kids/
- http://42explore.com/rope.htm

Lesson 4: Dancing For All Seasons

PREPARATION

5 minutes

SET UP

- ❑ See Set Up Details
- ❑ Set up CD player

SUPPLIES

- ❑ Musical instruments (see Set Up Details)
- ❑ CD player
- ❑ A variety of upbeat and relaxing music
- ❑ CDs of Native American Music (see Set Up Details) RL
- ❑ Two 5-8 foot poles for Tinikling

Outcomes (School Age)

The purpose of this lesson is to have the children:

- Learn about the importance of dance in cultures around the world
- Understand that dance is an activity that can be enjoyed throughout their whole lives
- Learn basic dance steps that can be done alone or with others
- Experience the joy of synchronized movement with music

Instructor Essential Information

Moving the body rhythmically to music or other sounds has been a part of cultures around the world as far back as history has been recorded. The sounds that accompany dance can be from instruments or from the dancers in the form of singing, clapping, stomping etc.

Dance has been a vehicle used to express joy, sorrow, success, and failure. Today, many dances that were once only practiced within specific cultures have become more widely known and popularized. This has occurred as more ethnic groups have become a part of the American mainstream. Examples of popularized ethnic dance include the Hora (Jewish), the "Cha-Cha" (from the Cuban Mambo) the Tango (Spain), the Mexican Hat Dance, the Irish Jig, and Tinikling (Republic of the Philippines).

There are also many uniquely American dances ranging in style from the Bunny Hop to the Electric Slide that have been shared among many cultures. Dance can unite people with different political, religious, and ethnic backgrounds. Some dances arise out of particular songs such as the Twist and the Macarena. Others are based on a musical genre or style such as rock 'n roll or hip-hop.

In this lesson, stress the common bonds of the emotions expressed by dance and the opportunities it presents for nonverbal communication. There are several web sites listed with step-by-step instructions if you wish to teach the children specific dances.

SET UP DETAILS

The best place for this lesson is a large open space. For this lesson, you will need a variety of music with strong beats. This should include music with a 2-3 beat (cha-cha), a 3-3 beat (waltz), and marches. Choose a variety of familiar music, including popular

Lesson 4: Dancing For All Seasons

music and classical music. See if you can find some classical music used in popular movie scores familiar to the children. Have enough percussion instruments for each child. Instruments can be toy drums, sticks, triangles, castanets or any other rhythm instruments. Review the web sites listed in the lesson and decide whether you will teach the children a specific dance or just focus on movement.

Discussion

DO (School Age) 10 minutes

Have the children sit on the floor in a semi circle. Ask how many of the children like to dance, and where they learned their specific moves. Explain that dance lessons are available at dance studios, local community or recreation centers, at camps, or even in school. They might have learned to dance from friends or siblings.

? Ask: How many of you have ever taken dance lessons? If so, what kind of dances did you learn?

? Ask: What is your favorite type of dance? Why?

? Ask: How do you feel when you dance?

? Ask: Have you ever danced with your parents or friends for fun?

Share with the children the importance of dance to most cultures as explained in the Instructor Essential Information.

Activity 1 – Rhythm In Me

DO (School Age) 15 minutes

Have children sit in a circle with their eyes closed while listening to the music. As the music plays, have them try the following for three minutes each:

- Keep time with their hands, either by clapping or tapping on the floor. Play several different speeds of music and have the children adapt to the changes.
- Select a rhythm instrument of their choice and sit with their eyes closed while keeping time to the music.
- Stand up and close their eyes. Have them move to the music, but keep their feet in the same place. They can either use an instrument or their hands or feet to keep time.
- Spread out so that they can spin around with their arms

Lesson 4: Dancing For All Seasons

outstretched without touching another person. Play music with a marching beat and tell them to keep time however they like. They should feel free to move about the room, leaving an arm's distance between themselves and other youth.

Activity 2 – Tinikling, The National Dance Of The Philippines

DO (All Ages) 30 minutes

Introduce youth to Tinikling, a dance native to the Philippines. This is a good follow-up to the rhythm activities and a spin-off of jumping rope. Have two youth sit cross-legged on the floor and hold the ends of two long poles. They may be made of plastic or bamboo (used in the Phillippines). Youth tap the poles on the floor for two counts with the poles about 12-18" apart, then lift the poles and tap them together for one count.

When the first two youth have mastered the beat, have the rest of the group take turns jumping the poles. To do this, youth first straddle the poles. They then jump inside the poles and then outside of them. Let all youth have a chance to jump as well as to tap the rhythm with the poles. Refer to the website in the Resources section for more information, music, and videos on Tinikling. Youth can use any choice of jumping movements as long as the pole rhythm is maintained; i.e. 1 foot hops, kicking feet into the air, bending down to touch knees, etc.

Activity 3 – Partner Fun

DO (School Age) 15 minutes

Assign each child a partner and be sure that all are participating. One way to do this is to divide the group into 2 lines and have them count off 1, 2, 3, etc., until everyone in both lines has a number. Then, tell the number 1's that they will be partners, the number 2's, and so on. If the group has an odd number of children, have one pair become a trio.

Ask each pair to develop a simple rhythm dance or routine. The children can decide whether to do their dance to music or other rhythmic sounds such as clapping. They can use dance steps they already know or concentrate on free movement. Play music and have them practice their dance to see if it fits the music.

After about 10 minutes, give the children the opportunity to demonstrate their routine to the group. Do not require that each

Lesson 4: Dancing For All Seasons

group perform. The goal of this exercise is for the children to enjoy movement to music and rhythm without any self-consciousness created by an audience. Do require that they participate during the planning phase.

REFLECT (School Age)

? Ask: What did you feel while you were moving with your eyes closed in the first exercise? Did you like moving alone or with a partner better?

APPLY (School Age)

Encourage the children to ask their parents, grandparents or friends to teach them some simple steps of a dance they remember from their childhood, especially one that reflects their cultural background. If the family has no tradition of dances, they can ask their parents to teach them any dance they know. Plan a follow up lesson so the children who wish to can demonstrate what they have learned.

Lesson 4: Dancing For All Seasons

PREPARATION

30 minutes

SET UP

Review web sites listed in Set Up Details.

SUPPLIES

- ❑ Toy drums
- ❑ CD player
- ❑ CDs of Native American Music (see Set Up Details)
- ❑ Two 5-8 foot poles for Tinikling

Outcomes (Middle School)

The purpose of this lesson is to have youth:

- Explore some of the dances of Native Americans
- Feel the connections between beat and movement
- Experience the joy of synchronized movement with music

Instructor Essential Information

Some of the earliest recorded dances are those of Native American tribes. Their dances are similar to many European and African cultural dances in that they convey the idea that everyone is of equal status. This idea is illustrated by dancing in a circle; there may be moments when there are soloists, but the basic concept is of equal participation. There are many variations of the basic steps of American Indian dancing. The goal of this lesson is to introduce Native American dancing and music, emphasizing its personal nature.

SET UP DETAILS

For this lesson, you will need CDs of Native American music. There are several sources for music of this kind, such as music stores, bookstores, online bookstores (Amazon.com, Half.com, Alibris.com, etc.) and other major distributors of music on the web. Web sites for music and information about Native American dance are shown in the Resources section.

Discussion

DO (Middle School) 10 minutes

Have youth sit on the floor in a semicircle.

? Ask: What do you know about Native American or American Indian music and dance? Answers may include:

- Dances are usually circular
- Men and women dance separately
- Every tribe has different dances but there are some commonalities
- There are ghost dances of the Great Plains
- Dances are usually connected to nature, animals and harvests
- Drums are the most common instrument, but flutes are also prominent

Lesson 4: Dancing For All Seasons

Activity 1 – Native American Dancing

DO (All Ages) 35-40 minutes

Our country's earliest dancers were Native Americans. Ask youth to get into a sitting position and close their eyes. Play an American Indian song for about five minutes and instruct youth to simply move to the music in any way they like. Be sure to tell them the title of the song.

? Ask: How did you feel when the music was playing? Did it make you think of anything in particular?

Put on a different song that has clear distinctions from the first one. Share the title, and ask youth to keep time to the music by tapping or hitting the floor, as though it were a drum. Ask youth to stand up and close their eyes. Play another Native American song and be sure to tell youth the title. Instruct youth to move their bodies to the music while staying in place. After five minutes, ask again how they felt while moving, and what they were thinking about.

Invite youth to decide whether they want to be a musician or a dancer for the next activity. Once they've chosen, divide them into two groups with musicians and dancers represented in both groups. Give drums or other percussion instruments to the musicians.

Ask each group to vote for the song they liked best of the three that you've played. Play the favorite song of the dancers and have the musicians drum while the dancers dance. Have the dancers develop a simple routine to go with their favorite music.

If time allows, have musician and dancers switch roles. This time, play the favorite song of the group who had been musicians and have these new dancers develop a simple routine to go with their music.

REFLECT (Middle School)
? Ask: How do you think that Native American dances developed? Do you know what animals, crops, and events were recognized and/or honored by dances? Why?

APPLY (Middle School)
Ask youth to explore Native American (American Indian) dances on the Internet.

Lesson 4: Dancing For All Seasons

PREPARATION

30 minutes

SET UP

- ❑ Find an open space for dancing
- ❑ Set up CD player

SUPPLIES

- ❑ CD player
- ❑ A variety of upbeat music
- ❑ A variety of upbeat and relaxing music (see Set Up Details)
- ❑ CDs of Native American Music (see set Up Details) RL
- ❑ Two 5-8 foot poles for Tinikling

Outcomes (Teen)

The purpose of this lesson is to have youth:

- Learn some "old fashioned" dances
- Understand that basic dance steps are used by many age groups, and many cultures
- Practice popular group dances such as the Electric Slide or Boot Scootin Boogie

Instructor Essential Information

SET UP DETAILS

For this lesson, you will need a variety of music with different beats. Obtain songs that can be used for ballroom dances such as the waltz (3 beat) and cha-cha (2-3 beat). Also have a variety of popular music such as hip-hop, rock, rap, and country. Include some classical music as well.

Discussion

DO (Teen) 20-25 minutes

Divide youth into small groups. Give each group one or two of the following questions to discuss.

? Ask: Why do people dance?

? Ask: Where do dance steps come from?

? Ask: How does dance reflect culture?

? Ask: What are the current popular dances?

? Ask: How do you feel when you are at a dance and songs are played that you don't like? (e.g., They might prefer hip-hop over rock, or don't like slow songs.)

Have teens share their small group observations with the larger group. Point out the similarities and differences from the discussion that was generated.

? Ask: How many of you have ever danced at a wedding or some other event where they were doing some of the "old" dances such as the Cha-Cha, Waltz and Foxtrot?

Play some samples of this type of music. Ask if any of the youth know how to do this kind of dancing. Have them demonstrate the dance to the group.

Lesson 4: Dancing For All Seasons

Activity 1 – Dancing Just For Me

DO (Teen) 20 minutes

Have each group select some music that they like and then find an individual space in which to dance. Put the first music on and ask youth to close their eyes and move in place to the music.

Choose another selection and tell youth to keep their eyes closed while they move in their space to the new music. Ask youth to try to move to the different beats. Continue to change music until all selections have been played. Then, repeat the same music but with eyes open. At the end of the music time, ask youth to share how they felt when they were dancing to music they didn't especially like or understand. Ask what the differences were with their eyes open vs. closed. Was it easier to dance to unfamiliar music with their eyes closed or did they like seeing how others responded to the music? Make the point that music and dance are very personal preferences involving a wide variety of thoughts and emotions.

REFLECT (Teen)

? Ask: Do you think that there can be spiritual aspects to some kinds of dance? (However youth define spiritual is fine.)

? Ask: Can you think of any religious or patriotic songs that you remember from childhood? Do these invoke different feelings than the popular songs of today?

APPLY (Teen)

Encourage youth to ask their parents, grandparents or others to teach them some simple steps of a dance they remember from their childhood - especially one that reflects their cultural background. If the family has no tradition of dances, they can ask their parents to teach them any kind of dance they know. Plan a follow up lesson so youth can demonstrate what they have learned.

Technology Challenge

(Teen)

Ask youth to select one kind of dance and research it on the web. It should be an unfamiliar dance. They can use the web sites listed in Resources to get started. Have them come back and share with the group what they learned.

Lesson 4: Dancing For All Seasons

Resources

- Native American dance websites:
  This site contains a downloadable guide to Native American dance steps.
  http://www.inquiry.net/outdoor/native/dance/fundamental_steps.htm
- Mexican Hat Dance:
  http://www.janbrett.com/piggybacks/hatdance.htm
- Irish and Scottish Dance:
  http://www.nonvi.com/sm/dance_list.html
- Philippines, Tinikling:
  http://www.likha.org/galleries/tinikling.asp

Lesson 5: Cooperative Play

PREPARATION

5 minutes

SET UP

- ❑ Set out tape or chalk
- ❑ Blindfolds

SUPPLIES

- ❑ 30-50 "mines"
- ❑ Tape or chalk
- ❑ Blindfolds

Outcomes (School Age)

The purpose of this lesson is to have the children:

- Develop listening skills
- Participate in a cooperative activity
- Develop team building skills

Discussion

DO (School Age) 15-20 minutes

? Ask: Do you know what team building means? Answer: team building is when you participate in activities in a group to help you learn how to work together to solve problems.

? Ask: Do you know how to develop team building skills? Possible answers: through games, physical activities, group activities, conversation and listening.

You will encounter many different kinds of people throughout your life. It is important that you learn to work cooperatively with others. Part of working cooperatively is having good listening skills.

Have the children stand in a circle. Whisper a simple message into the ear of one child. Have that child then whisper the message to the next child in the circle. That child then whispers the message to the next child, and so on. Have the last child reveal the message. Discuss what happened if the original message was not the same as the message the last person received.

? Ask: How might a mistake in passing the messages affect teamwork?

Activity 1 – Mine Field

DO (School Age) 20-25 minutes

The object of the Mine Field[6] game is to have blindfolded children make their way through a "minefield" with only verbal directions from their partner.

Draw, or have the children draw, a large (20' X 40') outline of a rectangle with tape or chalk. This rectangle becomes the

[6] Memory Ball Toss and Mine Field activities were adapted from Rohnke, K. and Butler, S. (1995). *Quicksilver*. Dubuque, IA: Kendall Hunt.

Lesson 5: Cooperative Play

"minefield."

Ask the children to set up "mines" inside the minefield. The mines are 30-50 small soft objects such as beanbags, food models, rolled up socks, etc. Make sure that “mines” are soft enough so there are no injuries. You may assign each child the task of bringing two soft items to the program or class.

Have the children divide into pairs and stand at opposite ends of the rectangle. One partner in each pair is blindfolded, while the other partner gives directions.

The child giving directions calls out simple verbal instructions to the blindfolded partner, guiding him or her through the minefield. If the blindfolded partner touches a mine, he or she is out of the game.

Repeat this activity allowing the other partner to be blindfolded and guided through the minefield.

REFLECT (School Age)

? Ask: How well did your partner follow directions? How well did your partner give directions?

? Ask: Did you feel more frustrated as the blindfolded partner or the partner giving directions?

APPLY (School Age)

Have the children brainstorm to generate a list of things they could do to become better listeners, communicators, and team players.

Allow the children to repeat the minefield activity with a new partner and apply some of these new ideas.

Lesson 5: Cooperative Play

PREPARATION

5 minutes

SUPPLIES

- ❑ Stopwatch
- ❑ One soft item such as a Koosh ball, a small stuffed animal, or other soft item

Outcomes (Middle School • Teen)

The purpose of this lesson is to have youth:

- Participate in a cooperative activity
- Develop problem-solving skills

Discussion

DO (Middle School • Teen) 15-20 minutes

? Ask: Can you name some ways to build physical skills? Some examples might include running, playing basketball, swimming, and dance, etc.

? Ask: Which of these activities depend on cooperation and which don't? What is the difference between a cooperative and non-cooperative activity?

? Ask: Can you name sports or other activities in which cooperation is necessary for the success of the team? Examples: basketball, soccer, football or a group homework assignment.

? Ask: In which sports or activities is cooperation less important? Examples: swimming, singles tennis, running, etc.

Explain to youth that some people prefer to be part of a team where everyone's efforts are equally important. Others prefer to participate in activities in which they are dependent only upon their own skills. Stress that youth should consider their preferences when choosing activities. Keep in mind that cooperation and teamwork are necessary skills for sports, school, work, and almost all facets of life.

Activity 1 – Memory Ball Toss

DO (Middle School • Teen) 20-25 minutes

Ask youth to form a circle. Give one person the ball and identify them as the starting person. Explain that each person is going to catch the ball and then toss it to someone who hasn't previously caught the ball.

Explain that the last person to catch the ball must return it to the starting person. Each person must remember who tossed the ball to them and the next person to whom they tossed the ball.

Lesson 5: Cooperative Play

The ball toss is then repeated, remembering the pattern and sequence of tosses (i.e., each person must receive and toss the ball to the same person as before). Practice the toss a few times so students can establish the pattern. The challenge is to see how fast the group can move the ball through the pattern from start to finish. The group should work as a team to help each other remember where the ball goes next. Time the group's efforts to track improvement.

Activity 2 – Mine Field

DO (Middle School • Teen) 20-25 minutes

See Activity 1 for School Age youth – Mine Field on page 187.

REFLECT (Middle School • Teen)

? Ask: Why do you believe your group did or did not make improvements with the ball toss game?

? Ask: What did your group do differently as time progressed? Possible answer: better decision making as a group or team than individually.

APPLY (Middle School • Teen)

Ask youth to identify a situation at home or school where teamwork is necessary for completion of a task. Have them report back what they noticed after becoming more aware of the listening and cooperation skills necessary for people to work well together.

Lesson 6: Planning A Wellness Event

PREPARATION
5 minutes

SET UP
Set up flip chart.

SUPPLIES
- ❑ Supplies
- ❑ Flip chart and paper
- ❑ Markers

Outcomes (All Ages)

The purpose of this lesson is to have youth:

- Review important nutrition and physical activity concepts
- Develop a wellness activity for their Center, after-school club or other group

Instructor Essential Information

This lesson should be completed after the majority of activities in *Up for the Challenge: Lifetime Fitness, Healthy Decisions* have been completed. It is an overall review of key concepts. The concepts are applied to the development of a wellness program or event. The event is designed by the youth for their club, group or community.

Discussion

DO (All Ages) 20 minutes

Have youth sit in a large circle and tell them that it is time to review some of the information they learned in the *Up for the Challenge: Lifetime Fitness, Healthy Decisions* curriculum. Ask them to name at least five important health concepts that are important to their lives. Possible answers:

- Eat more fruits and vegetables
- Be physically active at least 60 minutes each day
- Consume fewer sugary snacks
- Watch less television
- Eat more whole grains

? Ask: Have you or anyone in your family made any healthy lifestyle changes or developed new habits as a result of what you have learned in *Up for the Challenge*? Possible answers: more family bike rides/walks, packing healthy school lunches, participation in physical activities in school or in the community, healthy family meals together, etc.

Designate a recorder to write down ideas on flip chart paper.

? Ask: What kinds of community activities encourage families to be active and healthy? Examples:

- Community fun runs or walks that benefit charities like the

Lesson 6: Planning A Wellness Event

March of Dimes, cancer research, etc.
- Nutrition fairs
- Multicultural festivals where unfamiliar foods and dances are presented
- Intramural or recreational sport activities
- Access to parks and recreational facilities for activities like neighborhood pick-up games, softball, Frisbee, etc.

Post the ideas around the room to be used in the next activity.

Activity 1 – Planning A Wellness Activity

DO (All Ages) 60-90 minutes

Divide youth into groups. Using the ideas generated from the discussion, have each group come up with a plan of action for a wellness event that they could actually implement in their club or group at the installation, or in the larger community.

When each group is finished, have youth share their ideas. Take a vote to choose which event youth would like to plan and develop. Examples: a family field day, a walk to raise money for a cause, donating healthy foods to a food bank, a jump-a-thon, a health fair, writing a healthy foods cook book, or a cultural festival.

Once the wellness event has been chosen, lead the group through the planning discussion and make sure to cover the following items:

- **Timeline** - Youth will need to set a date for the event as well as deadlines for all things that need to happen prior to the event
- **Leader** - Vote on a youth chairperson who will be responsible for making sure everything gets accomplished
- **Roles** - Make sure everyone is assigned a job and understands their responsibilities
- **Location** – Research available locations for your event
- **Resources** – Identify what resources/supplies you need to make your event successful such as T-shirts, prizes, food, etc.? Who can help provide them? Can the group raise funds to support the event?
- **Partnerships** - Are there community partners who might help you with your event?
- **Marketing** – How will you handle the publicity for the event?

Lesson 6: Planning A Wellness Event

- **Community Participation** – Youth are encouraged to involve the larger community such as the neighborhood, school, etc. How will you get the community to participate?
- **Rain Date** – Select a rain date if the event will be held outside
- **Other items?**

Technology Challenge

(All Ages)

Spread the news about your up-coming wellness event. Write a news story that focuses on good health or one that publicizes your wellness event. Learn more about how to write a story by visiting http://www.timeforkids.com and clicking on "Homework Helper." Click on "A+ Papers," then "News Story." Click on "News Story Sample Paper," and "News Story Organizer." Use these tips for developing a news story to publicize your event.

Appendix A Handouts

Using MyPlate in Your Life - 9-13 year-olds

Using MyPlate in Your Life - 9-13 year-olds was developed to help you build an eating plan that works for you. You will find the right amount of foods to eat to meet your calorie needs and promote a healthy weight. Your eating plan also will give you the nutrients you need for **good health** and **fitness**!

Step 1: Estimate Your Daily Calorie Needs

Use the Estimated Daily Calorie Needs chart to find a calorie level that's right for you. Find your gender and age. Then select the activity level that best describes your lifestyle (sedentary, moderately active, or active) – see definitions on the next page.

The calorie levels in each gender and age group are based on youths of average height and at a healthy weight. If you are heavy and your doctor advises you to lose weight, follow the calorie level in the chart for your gender, age, and activity level. Then weigh yourself weekly and adjust your calorie intake and activity level to lose no more than one pound a week. Also, be sure that you do not feel hungry a lot of the time. You need to eat enough healthy foods to get all the nutrients you need to grow and develop normally!

Developed by Linda B. Bobroff, Ph.D., RD, LD/N, Professor
Department of Family, Youth and Community Sciences, University of Florida IFAS Extension, 2011
For more information, visit http://ChooseMyPlate.gov.

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http://fycs.ifas.ufl.edu/Extension/hnfs/myplate/MyPlate/Using_MyPlate_in_your_life_9-13_year_olds_FINAL.pdf

Using MyPlate In Your Life 9 – 13 Year-Olds page 2 of 4

ESTIMATED DAILY CALORIE NEEDS

This chart gives an **estimate** of calorie needs for specific age and gender groups. Calorie ranges are based on physical activity level, from sedentary to active.

	CALORIES		
Activity Level:	**Sedentary**	**Moderately Active**	**Active**
Females			
9 years	1,400	1,600	1,800
10 years	1,400	1,800	2,000
11 years	1,600	1,800	2,000
12-13 years	1,600	2,000	2,200
Males			
9 years	1,600	1,800	2,000
10 years	1,600	1,800	2,200
11 years	1,800	2,000	2,200
12 years	1,800	2,200	2,400
13 years	2,000	2,200	2,600

Sedentary – a lifestyle that includes only light physical activity associated with typical day-to-day life.

Moderately active – a lifestyle that includes physical activity equal to walking about 1½ to 2 miles per day at 3 to 4 miles per hour in addition to light physical activity associated with typical day-to-day life.

Active – a lifestyle that includes physical activity equal to walking more than 3 miles per day at 3 to 4 miles per hour, in addition to light physical activity associated with typical day-to-day life.

Be sure to eat enough healthy foods each day to get all the nutrients you need!

My **Estimated Daily Calorie Needs** are _____ calories. This calorie level is right for a child of average height who is at a healthy weight. The calorie level I want to aim for in my eating plan is _____ calories. (Use this number to build your eating plan in Step 2.) If you want to know about how many calories to eat at one meal, divide your total calories by three if you eat three meals a day. Keep in mind that your eating plan in Step 2 is based on your **total** daily calorie needs.

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Using MyPlate In Your Life 9 – 13 Year-Olds page 3 of 4

Step 2: Build Your Eating Plan

Find your daily calorie level at the top of the **My Eating Plan** chart. Follow the column below your calorie level to see how much food to eat each day from each of the food groups. You can divide these amounts among three meals or three meals and one or two snacks a day. Select foods that you enjoy and that fit your lifestyle! There are tips for selecting foods from each food group on the last page.

My Eating Plan

Calorie Level	1,400	1,600	1,800	2,000	2,200	2,400	2,600
Fruits	1½ cups	1½ cups	1½ cups	2 cups	2 cups	2 cups	2 cups
Vegetables	1½ cups	2 cups	2½ cups	2½ cups	3 cups	3 cups	3½ cups
Grains	5 oz-eq	5 oz-eq	6 oz-eq	6 oz-eq	7 oz-eq	8 oz-eq	9 oz-eq
Protein foods	4 oz-eq	5 oz-eq	5 oz-eq	5½ oz-eq	6 oz-eq	6½ oz-eq	6½ oz-eq
Dairy	2½ cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups
Oils	4 tsp	5 tsp	5½ tsp	6 tsp	6½ tsp	7 tsp	7½ tsp

NOTE: oz-eq means ounce-equivalents; see the Grains group and Protein foods sections on page 4 to understand how these work.

3

Fruits group includes all fresh, frozen, canned, and dried fruits and 100% fruit juices. **Choose whole fruits rather than fruit juices most often**. In general, 1 cup of fruit or 100% fruit juice, or ½ cup of dried fruit is considered 1 cup from this group.

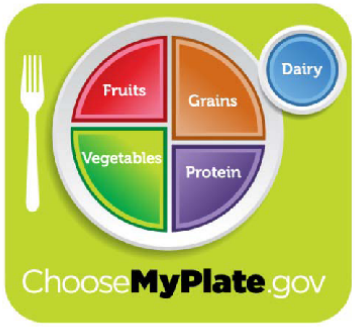
Vegetables group includes all fresh, frozen, canned, and dried vegetables and vegetable juices. In general, 1 cup of raw or cooked vegetables or vegetable juice, or 2 cups of raw leafy greens can be considered 1 cup from the vegetable group. **Include a variety of colors and types of vegetables, such as dark green, red, and orange vegetables and beans and peas throughout the week**.

Grains group includes all foods made from wheat, rice, oats, cornmeal, barley, and other grains such as bread, pasta, oatmeal, breakfast cereals, tortillas, and grits. In general, 1 slice of bread, 1 cup of ready-to-eat cereal, ½ cup of cooked rice, pasta, or cooked cereal, 1 (6") tortilla, or 1 (5") pancake is considered 1 ounce equivalent from this group. **At least half of all grains eaten should be whole grains such as whole wheat bread or pasta, oatmeal, and brown rice**.

Dairy group includes all milks, including lactose-free or reduced products, fortified soy beverages, yogurts, dairy desserts, and cheeses. **Make most choices fat-free or low-fat**. In general, 1 cup of milk or yogurt, 1½ ounces natural cheese, or 2 ounces of processed cheese is considered 1 cup from this group. Foods made from milk that are high in fat and have little or no calcium, such as cream, cream cheese, sour cream, and butter, are not included in this group. These high-fat foods can be eaten in limited amounts occasionally.

Protein foods include all meat, poultry, seafood, eggs, nuts, seeds, and processed soy products. **Choose lean protein foods and vary your choices throughout the week**. In general, 1 ounce lean meat, poultry, or seafood, 1 egg, 1 tablespoon peanut butter, ¼ cup cooked dry beans or peas, or 2 tablespoons nuts or seeds is considered 1 ounce equivalent.

Oils include vegetable, nut, and fish oils and soft vegetable oil table spreads that have no *trans* fats.



Using MyPlate in Your Life - Teens

Using MyPlate in Your Life – Teens was developed to help you build an eating plan that works for you. You will find the right amount of foods to eat to meet your calorie needs and promote a healthy weight. Your eating plan also will give you the nutrients you need for good health and fitness!

Step 1: Estimate Your Daily Calorie Needs

Use the Estimated Daily Calorie Needs chart to find a calorie level that's right for you. Find your gender and age. Then select the activity level that best describes your lifestyle (sedentary, moderately active, or active) – see definitions on the next page.

The calorie levels in each gender and age group are based on persons of average height and at a healthy weight. If you are obese or overweight and want to lose weight, you can follow the calorie level in the chart for your gender, age, and activity level. When losing weight, weigh yourself weekly and adjust your calorie intake and activity level to lose no more than one pound a week. Also, be sure that you do not feel hungry a lot of the time. You need to eat enough healthy foods to get all of the nutrients you need!

Developed by Linda B. Bobroff, Ph.D., RD, LD/N, Professor
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For more information, visit http://ChooseMyPlate.gov.

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http://fycs.ifas.ufl.edu/Extension/hnfs/myplate/MyPlate/Using_MyPlate_in_your_life_Teens_FINAL.pdf

ESTIMATED DAILY CALORIE NEEDS

This chart gives an **estimate** of calorie needs for specific age and gender groups. Calorie ranges are based on physical activity level, from sedentary to active.

	CALORIES		
Activity Level:	**Sedentary**	**Moderately Active**	**Active**
Females			
13 years	1,600	2,000	2,200
14-18 years	1,800	2,000	2,400
19-20 years	2,000	2,200	2,400
Males			
13 years	2,000	2,200	2,600
14 years	2,000	2,400	2,800
15 years	2,200	2,600	3,000
16-18 years	2,400	2,800	3,200
19-20 years	2,600	2,800	3,000

Sedentary – a lifestyle that includes only light physical activity associated with typical day-to-day life.

Moderately active – a lifestyle that includes physical activity equal to walking about 1½ to 2 miles per day at 3 to 4 miles per hour in addition to light physical activity associated with typical day-to-day life.

Active – a lifestyle that includes physical activity equal to walking more than 3 miles per day at 3 to 4 miles per hour, in addition to light physical activity associated with typical day-to-day life.

Be sure to eat enough healthy foods each day to get all the nutrients you need!

My **Estimated Daily Calorie Needs** are _____ calories. This calorie level is right for a teen of average height who is at a healthy weight. The calorie level I want to aim for in my eating plan is _____ calories. (Use this number to build your eating plan in Step 2.) If you want to know about how many calories to eat at one meal, divide your total calories by three if you eat three meals a day. But keep in mind that your eating plan in Step 2 is based on your **total** daily calorie needs.

Step 2: Build Your Eating Plan

Find your daily calorie level at the top of the **My Eating Plan** chart. Follow the column below your calorie level to see how much food to eat each day from each of the food groups. You can divide these amounts among three meals or three meals and one or two snacks a day. Select foods that you enjoy and that fit your lifestyle! There are tips for selecting foods from each food group on the last page.

My Eating Plan

Calorie Level	1,600	1,800	2,000	2,200	2,400	2,600	2,800	3,000	3,200
Fruits	1½ cups	1½ cups	2 cups	2 cups	2 cups	2 cups	2½ cups	2½ cups	2½ cups
Vegetables	2 cups	2½ cups	2½ cups	3 cups	3 cups	3½ cups	3½ cups	4 cups	4 cups
Grains	5 oz-eq	6 oz-eq	6 oz-eq	7 oz-eq	8 oz-eq	9 oz-eq	10 oz-eq	10 oz-eq	10 oz-eq
Protein foods	5 oz-eq	5 oz-eq	5½ oz-eq	6 oz-eq	6½ oz-eq	6½ oz-eq	7 oz-eq	7 oz-eq	7 oz-eq
Dairy	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups	3 cups
Oils	5 tsp	5½ tsp	6 tsp	6½ tsp	7 tsp	7½ tsp	8 tsp	9½ tsp	11 tsp

NOTE: oz-eq means ounce-equivalents; see the Grains group and Protein foods sections on page 4 to understand how these work.

Fruits group includes all fresh, frozen, canned, and dried fruits and 100% fruit juices. **Choose whole fruits rather than fruit juices most often**. In general, 1 cup of fruit or 100% fruit juice, or ½ cup of dried fruit is considered 1 cup from this group.

Vegetables group includes all fresh, frozen, canned, and dried vegetables and vegetable juices. In general, 1 cup of raw or cooked vegetables or vegetable juice, or 2 cups of raw leafy greens can be considered 1 cup from the vegetable group. **Include a variety of colors and types of vegetables, such as dark green, red, and orange vegetables and beans and peas throughout the week**.

Grains group includes all foods made from wheat, rice, oats, cornmeal, barley, and other grains such as bread, pasta, oatmeal, breakfast cereals, tortillas, and grits. In general, 1 slice of bread, 1 cup of ready-to-eat cereal, ½ cup of cooked rice, pasta, or cooked cereal, 1 (6") tortilla, or 1 (5") pancake is considered 1 ounce equivalent from this group. **At least half of all grains eaten should be whole grains such as whole wheat bread or pasta, oatmeal, and brown rice**.

Dairy group includes all milks, including lactose-free or reduced products, fortified soy beverages, yogurts, dairy desserts, and cheeses. **Make most choices fat-free or low-fat**. In general, 1 cup of milk or yogurt, 1½ ounces natural cheese, or 2 ounces of processed cheese is considered 1 cup from this group. Foods made from milk that are high in fat and have little or no calcium, such as cream, cream cheese, sour cream, and butter, are not included in this group. These high-fat foods can be eaten in limited amounts occasionally.

Protein foods include all meat, poultry, seafood, eggs, nuts, seeds, and processed soy products. **Choose lean protein foods and vary your choices throughout the week**. In general, 1 ounce lean meat, poultry, or seafood, 1 egg, 1 tablespoon peanut butter, ¼ cup cooked dry beans or peas, or 2 tablespoons nuts or seeds is considered 1 ounce equivalent.

Oils include vegetable, nut, and fish oils and soft vegetable oil table spreads that have no *trans* fats.

Handout for Chapter 1, Lesson 2: MyPlate: The Beginning Challenge

Recipe: MyPlate Kabobs

Recipe

MyPlate Kabobs

UTENSILS

Cutting board
Knife
Large serving platter
Wood skewer

INGREDIENTS

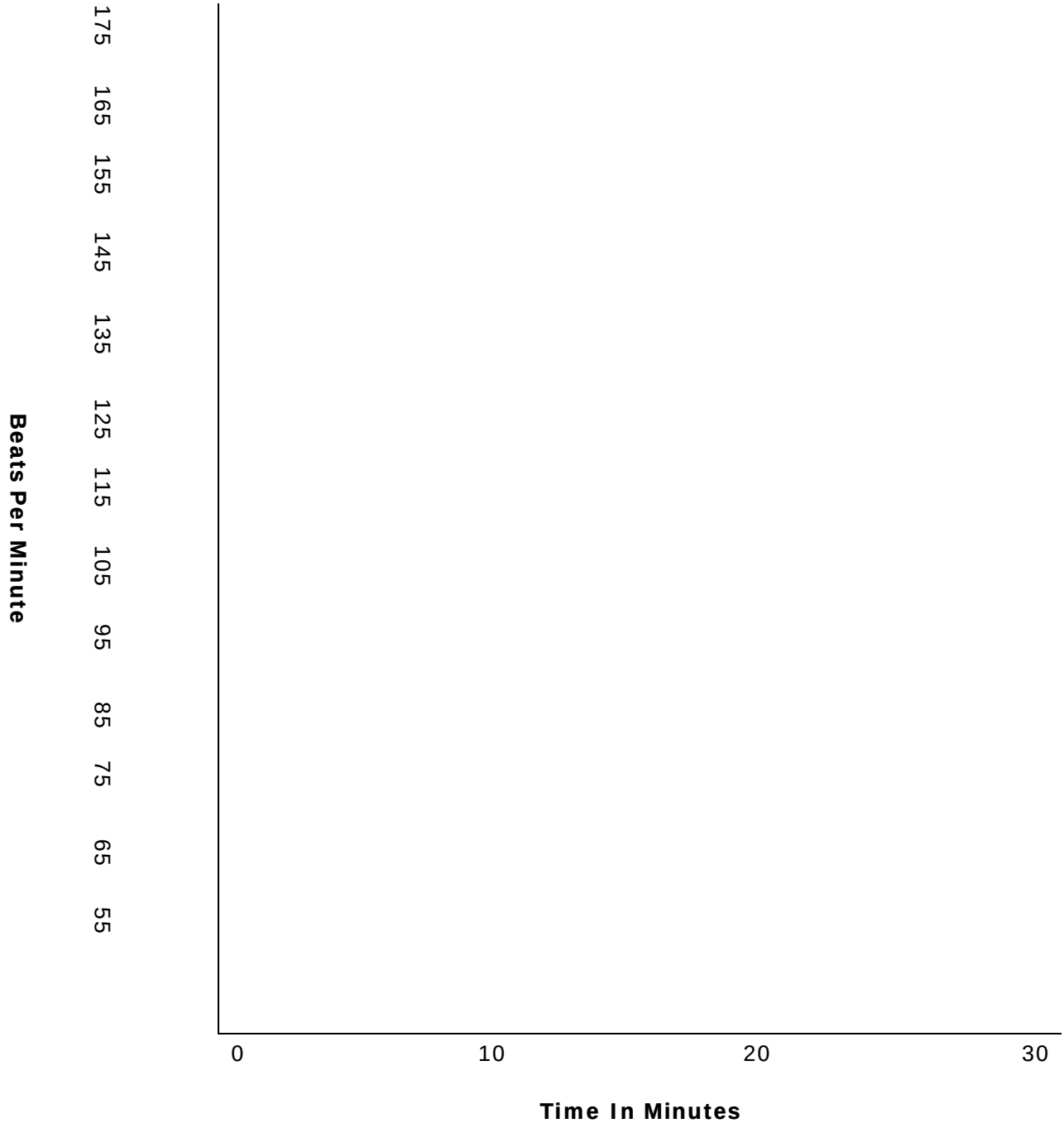
Cubed ham or turkey
Cubed low-fat cheese
Cubed pineapple
Cherry tomatoes
Other fruit, vegetables or meats, cubed
Whole wheat pretzel sticks (can substitute whole wheat crackers)

DIRECTIONS

To make a MyPlate Kabob, take a pretzel stick and place different kinds of food on it as if it were a skewer. Food examples: cubes of ham/turkey (protein), cheese (dairy), pineapple (fruits), and cherry tomatoes (vegetables). You may need to pre-cut holes in the food cubes with wood or metal skewers. Or, simply use the wooden skewers instead of pretzel sticks, then serve with whole grain crackers and call them MyPlate snacks.

Handout for Chapter 1, Lesson 4: In Beat – The Heartbeat

Heart Rate Log



Handout for Chapter 1, Lesson 5: Think Your Drink

Can You Guess How Much Fat Is In Each Cup Of Milk?

We often think that drinking low-fat or fat-free milk will not taste as good as whole milk. Try out these samples labeled A-D. Can you guess how much fat is in each cup of milk? Mark down whole, 2%, 1%, or fat-free.

Which milk product did you like the best? Put a check mark by the one that you liked the best.

Product A: _____

Product B: _____

Product C: _____

Product D: _____

There are low-fat or fat-free flavored varieties of milk that taste very similar to whole fat flavored milk. Now, try out the samples labeled E-F. Can you guess how much fat is in each cup of flavored milk? Mark down whole, 2%, 1%, or fat free.

Which flavored milk product did you like the best? Put a check mark by the one that you liked best.

Product E: _____

Product F: _____

Handout for Chapter 1, Lesson 5: Think Your Drink

Recipe: Three Fruit Drinks

Fruit Juice Spritzer, Juice Float, Power Me Up Smoothie

Recipes

Recipe	Ingredients	Directions
Fruit Juice Spritzer	2½ cups orange juice 1 cup pineapple juice 1 liter club soda or seltzer water	Mix juices in a pitcher and add soda. Stir and serve over ice.
Juice Float	100% fruit juice Frozen fruit yogurt	Offer a selection of three or more 100% fruit juices and low-fat frozen yogurt. Provide 12 ounce cups and an ice cream scoop for the youth. Have each youth concoct their own juice float as a snack. Put a scoop or large spoonful of frozen fruit yogurt in your cup; pour one or more types of fruit juice on top; mix with spoon.
Power Me Up Smoothie	½ cup fresh or frozen fruit 8 ounces low-fat or fat-free plain yogurt 8 ice cubes	Place all ingredients in a blender. Blend thoroughly. Makes two 8 ounce servings or 10 small sample servings.

Handout for Chapter 1, Lesson 5: Think Your Drink

Recipe: Make Your Own Yogurt

Recipe

Make Your Own Yogurt

UTENSILS

Candy thermometer
Saucepan
Wooden spoon
Liquid measuring cup
2 or 3 wide-mouthed glass jars with screw on lids
Thick towel

INGREDIENTS

Starter yogurt culture (buy a container of plain yogurt with active cultures)
2½ cups milk (2%, 1% or fat free).

DIRECTIONS

Warm the milk in a saucepan on low heat until it reaches 180° F. Use a candy thermometer to check the temperature. When 180° is reached, take pan off the stove. There will be small bubbles around the edge of the pot and a "skin" will develop on top of the milk. Heating the milk kills bacteria that might spoil the milk before the yogurt is finished.

Take the “skin” off the milk with a wooden spoon. Wait until the milk cools to 110° F. This might take ½ hour or so. You do this so that the "good" bacteria in the starter culture aren’t killed by high heat when you add the starter to the milk. Add one tablespoon of the yogurt to the cooled milk. Mix completely with a wooden spoon.

Pour into the clean glass jars. Cover and wrap the towel around it to keep it warm. Bacteria grow faster in a warm environment.

Let the yogurt culture stand at room temperature away from drafts and movement for 8-12 hours. Don't peek or stir it. The yogurt is ready when it moves away (pulls) in one piece from the sides of the jar as you tilt it. If it's not ready, leave it for two more hours and check again. Don't let it stand for more than 12 hours or the yogurt will be too tart.

Refrigerating your yogurt stops the growth of bacteria. Chill before you eat it. Don’t forget to save some for your next batch of yogurt.

Handout for Chapter 1, Lesson 5: Think Your Drink

Ice Cream Personality Test

Pick your favorite flavor and see what it says about your personality.

VANILLA	There is nothing plain about vanilla. In fact, if you love vanilla you are colorful, impulsive, a risk taker who sets high goals and has high expectations of yourself.
CHOCOLATE CHIP	You are competitive and accomplished. You are competent, ambitious and generous with your time and money. Your captivating personality makes you a shining star in social situations.
BUTTER PECAN	You are orderly, perfectionist, careful, detail-oriented, conscientious, ethical, and fiscally conservative. You are also competitive, aggressive in sports and have a take-charge type of personality.
DOUBLE CHOCOLATE CHUNK	You are lively, creative, and dramatic. You enjoy being in the spotlight and prefer to be in the company of friends rather than alone. Always the life of the party, you charm everyone you meet. You are easy-going, well-adjusted, generous, honest, and empathetic.
STRAWBERRY	You are a thoughtful, logical person who carefully weighs each option before making decisions. More a follower than a leader, you are content and effective working behind the scenes and out of the limelight.[7]

[7] Adapted from www.icecream.com/funfacts

Handout for Chapter 1, Lesson 7: MyPlate – Picking Protein

How Much Meat And Beans?

How Much Meat and Beans?

This chart shows how much to eat from the Meat and Beans Group. This amount is right for persons who get less than 30 minutes of moderate physical activity each day. Young people who are more active may need to eat more food to meet their calorie (energy) needs. Individual needs vary, so use this as a general guide to food intake.

Group	Age	Daily Recommendation
Children	4 to 8 years old	3 to 4 ounce equivalents
Girls	9 to 18 years old	5 ounce equivalents
Boys	9 to 13 years old	5 ounce equivalents
	14 to 18 years old	6 ounce equivalents

What counts as an ounce of meat and beans?

In general, 1 ounce of meat, poultry or fish, ¼ cup cooked dry beans, 1 egg, 1 tablespoon of peanut butter, or ½ ounce of nuts or seeds, each count as 1-ounce from the meat and beans group.

Here are a few more examples:

¼ cup tofu ¼ cup cooked black beans or chickpeas ¼ cup hummus	1 sandwich slice lean turkey meat 24 pistachios ½ cup split pea soup

Handout for Chapter 1, Lesson 7: Picking Protein

Recipe: Let's Try Black Bean and Corn Salsa

Recipe

Let's Try Black Bean and Corn Salsa

UTENSILS

Cutting board
Cutting knife
Mixing bowl and spoon
Measuring spoons

INGREDIENTS

1/3 cup chopped red bell pepper
2 tablespoons olive oil
¼ cup red onion, finely chopped
2 cloves garlic, chopped
1 large tomato, chopped
1 stalk celery, chopped
3 tablespoons chopped fresh basil
Lime juice
2 ears corn (1 ½ cups frozen corn)
2 cans black beans, rinsed and drained
Salt
Freshly ground pepper
½ teaspoon chili powder
½ teaspoon ground cumin

DIRECTIONS

Husk corn, combine all ingredients in a bowl. Stir, cover, and chill. Serve with baked tortilla chips.

Handout for Chapter 1, Lesson 7: Picking Protein

Recipe: Fresh Spinach and Cilantro Salad

Recipe

Fresh Spinach And Cilantro Salad

UTENSILS

Cutting board
Cutting knife
Mixing bowl and spoon
Measuring cups and spoons
Salad bowl

INGREDIENTS

1 – 16 ounce prewashed bag of spinach or 1 bunch of spinach, washed
1 – 15 ounce can beans, rinsed and drained (kidney, cannellini, black beans)
4 medium tomatoes, chopped
1 medium onion, thinly sliced and quartered
2 cups cilantro, chopped
1 tablespoon olive or vegetable oil
1 fresh lemon
1 fresh lime
2 cups crumbled low-fat Feta, Jack, or Cheddar cheese
1 cup baked tortilla chips, lightly crushed

DIRECTIONS

Place all vegetables in a large salad bowl. Squeeze the juice of the lemon and lime into the bowl and drizzle with oil. Toss salad until all vegetables are well coated. Sprinkle cheese and tortilla chips on top and serve.

Serves: 8 as a side dish or 4 as an entrée

Handout for Chapter 1, Lesson 7: Picking Protein

Recipe: Walnut Hummus Dip with Apple

Recipe

Walnut Hummus Dip with Apple

UTENSILS

Cutting board
Cutting knife
Mixing bowl and spoon
Measuring cups and spoons
Zester or grater
Blender or Food Processor

INGREDIENTS

2 - 15 ½ ounce cans chick peas, rinsed and drained
1 cup walnuts
2 tablespoons canola oil
1 teaspoon orange zest
¼ cup orange juice
1 garlic clove, minced
Salt and pepper to taste
Red or green apples for dipping

DIRECTIONS

Toast walnuts until golden in a non-stick skillet for 3-5 minutes. Cool. Blend chick peas in a food processor, add walnuts, oil, orange zest, orange juice, salt and pepper until well blended. Pour into serving bowl. Serve immediately with sliced apples. To prevent apples from discoloring, sprinkle with lemon juice.

Handout for Chapter 1, Lesson 7: Picking Protein

Recipe: Good For You And Tastes Good Too Bean Tacos

Recipe

Good For You And Tastes Good Too Bean Tacos

UTENSILS
Cutting board
Cutting knife
Mixing bowl and spoon
Measuring cups and spoons
Skillet

INGREDIENTS
2 cans of beans
1 tablespoon of olive oil
½ onion, finely chopped
1 clove garlic, chopped or minced
6 corn tortillas
6 tablespoons of low-fat sour cream or low-fat plain yogurt
½ cup of low-fat shredded mozzarella cheese

DIRECTIONS
In a skillet, heat the olive oil, chopped garlic, and chopped onion. Sauté these ingredients for a few minutes until the garlic is slightly golden. Drain and rinse the can of beans and add to the pan. Mash the beans into the oil, garlic, and onion. Mix the ingredients in the skillet.

Warm-up the corn tortillas. Spoon the beans onto the warm corn tortillas, add some shredded mozzarella cheese and one teaspoon of low-fat sour cream.

Makes 6 servings.

Handout for Chapter 1, Lesson 9: Eating Rainbows

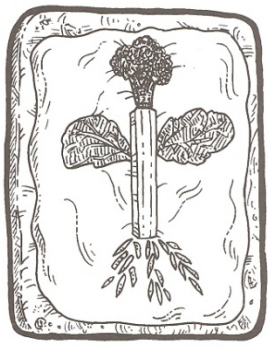
Veggie Plant Parts[8]

Name _____

Did you know that vegetables come from all parts of the plant? Vegetables can be roots, stems, leaves, seeds, flowers or even fruit. Yes, vegetables can actually be the "fruit" part of the plant. A botanist (a scientist who studies plants) classifies the fruit of the plant as the part that surrounds the seeds. Examples of vegetables that are the fruit part of the plant include zucchini, cucumbers, peppers, tomatoes and eggplant.

WORD LIST GAME
Directions: Unscramble the part of the plant in the left column. Next, draw a line from the plant part to the correct vegetable. Answers can be found below.

O R O T ___ ___ ___ ___	Broccoli
T I U F R ___ ___ ___ ___ ___	Corn
A L F E ___ ___ ___ ___	Carrot
E D S E ___ ___ ___ ___	Celery
T E S M ___ ___ ___ ___	Romaine Lettuce
E O L W F R ___ ___ ___ ___ ___ ___	Tomato



Plant Part Art *A Science Project You Can Eat!*

INGREDIENTS

Large flat cracker
Peanut butter or low-fat cream cheese
2-3 broccoli florets
1 celery stick
1 lettuce leaf, torn into small pieces
1 tablespoon grated carrots

DIRECTIONS

Lightly spread cracker with either peanut butter or cream cheese. Next, create a plant or garden design on the cracker by arranging shredded carrots for roots, celery stick for the stem, lettuce for leaves and broccoli for flowers. EAT & ENJOY! *Serves 1.*

Answers to Word List Game: flower = broccoli, fruit = tomato, leaf = lettuce, root = carrot, seed = corn, stem = celery

[8] Adapted from Connie Liakos Evers, MS, RD, How to Teach Nutrition to Kids, Leader/Activity Guide, 1998, 24 Carrot Press.

Handout for Chapter 1, Lesson 9: Eating Rainbows

You Can Eat A Rainbow

You Can Eat A Rainbow

Fruits and vegetables should be part of each meal, every day. Fruits and vegetables come in all colors of the rainbow from deep red and green, to bright orange and yellow. Their colors come from natural ingredients inside that give them their healthy properties.

The pot at the end of the rainbow is legumes (dry beans, dry peas, lentils). Remember legumes are nutritious and also an excellent source of protein.

Try to see how many colored fruits and vegetables you can eat this week. Draw or write them in their matching colors of the rainbow. How many times did you eat legumes during the week? _____

You Can Eat A Rainbow

Handout for Chapter 1, Lesson 9: Eating Rainbows

Recipe: Rainbow Fruit Kabobs[9]

Recipe

Rainbow Fruit Kabobs

(Makes 12 Kabobs)

UTENSILS

Cutting board
Sharp knife
Can opener
12 wooden skewers (10 to 12 inches long)
Large serving platter

INGREDIENTS

1 pint strawberries, washed and stems removed
1 cantaloupe, cut into chunks
20 ounce can pineapple chunks in juice, drain and reserve juice, or fresh pineapple cut into chunks
1 honeydew melon, cut into chunks
1 pound purple grapes, washed
2 large bananas, peeled

DIRECTIONS

Cut each banana into six chunks. Dip chunks in reserved pineapple juice. Thread a strawberry, a cantaloupe chunk, a grape, a pineapple chunk, a honeydew melon chunk and a banana chunk on each skewer. Add more fruit until each skewer is full. Set on a plate and start threading the next skewer. Repeat until all skewers are filled with a rainbow of colorful fruit.

Lay skewers on platter. Pour reserved pineapple juice over the top to keep fruit from browning. Chill until ready to serve.

[9] The Rainbow Fruit Kabobs recipe is adapted from the Fun with Fruits and Vegetables Kids Cookbook, 2003, Dole Food Company, Inc., http://www.dole5aday.com

Handout for Chapter 1, Lesson 9: Eating Rainbows

Recipe: Crunchy Vegetable Burrito Banditos

Recipe

Crunchy Vegetable Burrito Banditos

UTENSILS

Cutting board
Grater
Knife
Mixing bowl and spoon
Measuring cups and spoons

INGREDIENTS

½ cup shredded carrots
½ cup chopped broccoli
½ cup chopped cauliflower
2 green onions, thinly sliced
1 cup (4 ounces) shredded low-fat Cheddar cheese
¼ cup low-fat Ranch salad dressing
½ teaspoon chili powder
4 (7-inch) whole wheat tortillas
1 cup lettuce, torn or cut into bite size pieces

DIRECTIONS

Grate the carrots and cut the broccoli, cauliflower and green onions.

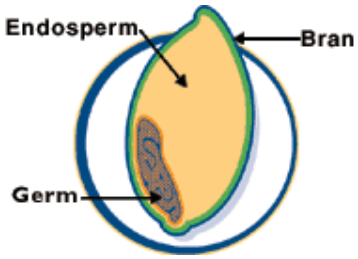
In a mixing bowl, combine carrots, broccoli, cauliflower and onions with cheese, dressing and chili powder.

Lay tortilla flat on the counter and spoon about ½ cup vegetable mixture and ¼ cup lettuce down the center. Wrap each tortilla around the vegetable mixture.
(Makes 4 servings)

Handout for Chapter 1, Lesson 10: Grainy Brainy

What Are Whole Grains?

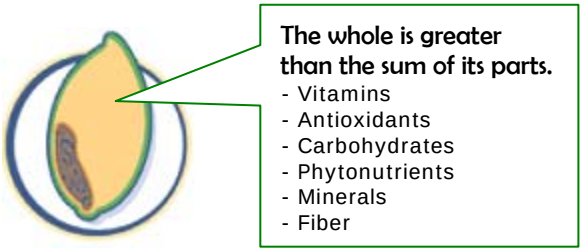
Whole Grain Components



Whole grains include all three parts of a grain kernel: the bran, germ, and endosperm. Whole grain foods are made with all three of these grain components. For instance, whole wheat flour, some breakfast cereals, brown rice, barley, and oatmeal are all considered whole grain foods. You'll find more information at: http://www.bellinstitute.com.

The Whole is Greater than the Sum of the Parts

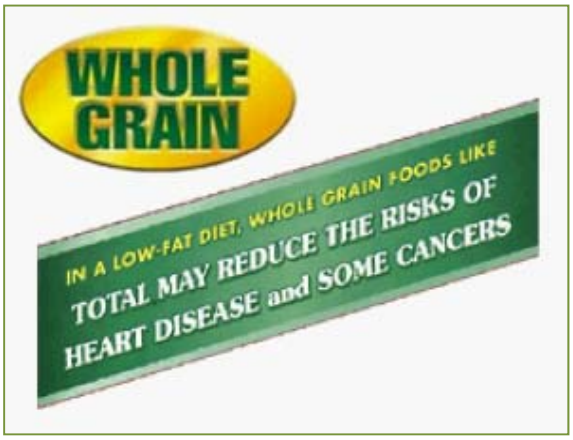
The fiber, vitamins, minerals, and hundreds of phytochemicals found in whole grains work together in powerful ways. Though the exact mechanisms are unknown, scientific evidence shows that regular consumption of whole grains is linked to a reduced risk of certain diseases.



Health Benefits of Whole Grains

A diet that contains whole grains may have these benefits:

- Reduced overall risk for heart disease and heart disease mortality.
- Reduced instances of certain cancers - most notably gastrointestinal cancers.
- Whole grain foods appear to influence carbohydrate metabolism. Studies suggest that consuming whole grain foods may reduce the risk for developing Type II diabetes.



Finding Whole Grain Foods

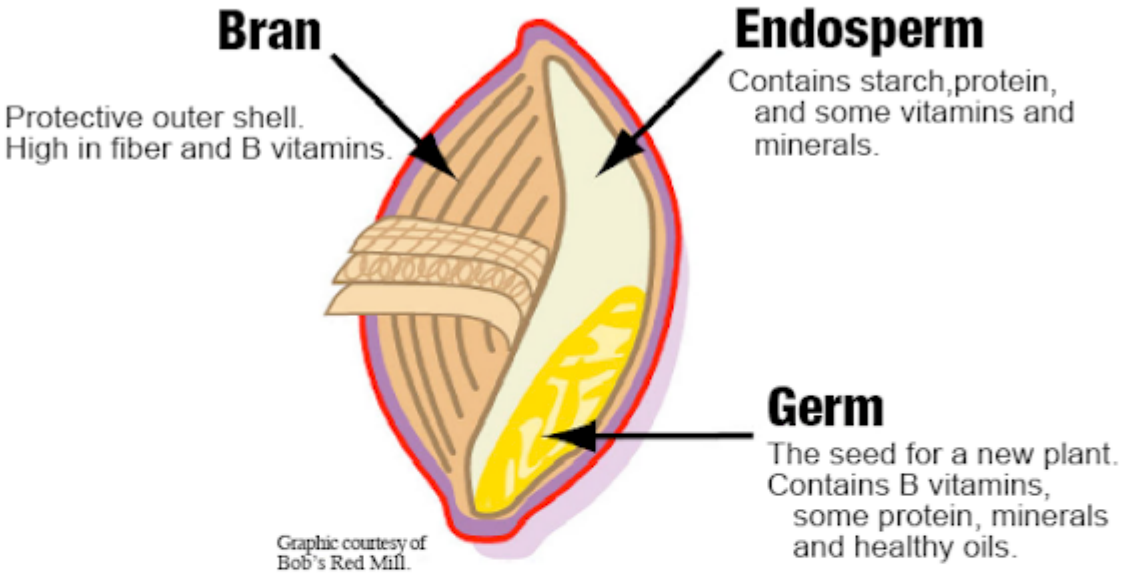
Check for whole grains by scanning the ingredient list on a food label. Look for the words whole or whole grain before the name of the grain e.g., wheat, oats, corn, rice. It should be the first ingredient. Look for whole grain descriptors such as bulgur, buckwheat, popcorn, brown rice, wild rice, millet, quinoa and whole oats.

INGREDIENTS: WHOLE GRAIN OATS, (INCLUDES THE OAT BRAN), MODIFIED CORN STARTCH, WHEAT STARCH, SUGAR, SALT, OAT FIBER, TRISODIUM PHOSPHATE, CALCIUM CARBONATE, VITAMIN E (MIXED TOCOPHERALS) ADDED TO PRESERVE FRESHNESS. VITAMINS AND MINERALS: IRON AND ZINC.

Handout for Chapter 1, Lesson 10: Grainy Brainy

What Is A Whole Grain?

What is a Whole Grain?



All grains, when they grow in the field, have three parts: the bran, germ and endosperm, as shown in the illustration here. Whole grains or foods made from them contain all the essential parts and naturally-occurring nutrients of the entire grain seed. Enriched ("white") flour contains only the endosperm, while whole grain flour contains extra protein, fiber, vitamins and minerals that are found only in the bran and germ. All three parts are important!

The following are considered whole grains, when all three parts – the bran, germ, and endosperm – are included:

Amaranth, Barley (hull-less or hulled), Brown and Colored Rice, Buckwheat, Bulgur, Corn and Whole Cornmeal, Emmer, Farro, Kamut® grain, Millet, Oatmeal and Whole Oats, Popcorn, Quinoa, Sorghum, Spelt, Triticale, Whole Rye, Whole or Cracked Wheat, Wheat Berries, and Wild Rice.

WHOLE GRAINS COUNCIL
AN OLDWAYS PROGRAM

Handout for Chapter 1, Lesson 10: Grainy Brainy

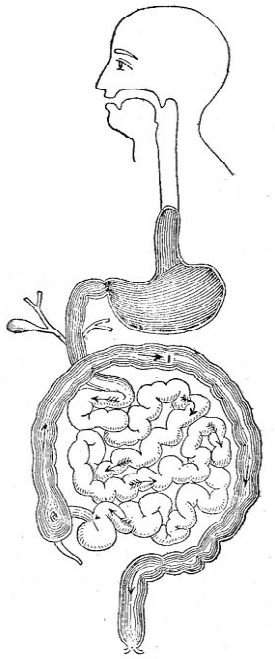
Making A Model Of The Digestive System

Supplies:

100-feet length of clothesline cord, ½ gallon plastic milk container, marker, masking or duct tape, plastic teeth

Instructions:

You will be making a model of the digestive system. Attach the teeth to one end of a 10-inch cord. Attach the other end of the cord to the open end of a ½ gallon container for the esophagus. Divide the clothesline into three equal pieces. At the other end of the container, cut an opening and extend from it the three pieces of rope, which, when braided, will represent the intestines. Measure and mark a spot 20 feet down the length for the small intestine. Color or wrap with tape the remaining length of rope to represent the large intestine. When finished, the entire intestine should measure approximately 30 feet.



Handout for Chapter 1, Lesson 10: Grainy Brainy

How Many Grains?

How Many Grains?

This chart shows how much to eat from the Grains Group. This amount is right for persons who get less than 30 minutes of moderate physical activity each day. Young people who are more active may need to eat more food to meet their calorie (energy) needs. Individual needs vary, so use this as a general guide to food intake.

Group	Age	Daily Recommendation	Daily Minimum Amount of Whole Grains
Children	4 to 8 years old	4 to 5 ounces	2 to 2 ½ ounces
Girls	9 to 13 years old	5 ounces	3 ounce
	14 to 18 years old	6 ounces	3 ounce
Boys	9 to 13 years old	6 ounces	3 ounce
	14 to 18 years old	7 ounces	3 ½ ounce

What counts as an ounce of grains?

In general, 1 slice of bread, 1 cup of ready-to-eat cereal, or ½ cup of cooked rice, cooked pasta, or cooked cereal each counts as 1-ounce from the grains group.

Here are a few more examples:

1 mini bagel ½ English muffin		1 6-inch tortilla 1 packet instant oatmeal	

Handout for Chapter 1, Lesson 10: Grainy Brainy

Recipe: Bread In A Bag

Recipe

Bread In A Bag

UTENSILS

1 zip-lock heavy duty freezer baggie (gallon size)
Measuring spoons
Measuring cups (dry and liquid)
Rolling pin (optional)
Bread pans or foil disposable pans
Cooking spray
Large shallow pan
Baking sheet

INGREDIENTS

2 cups all-purpose flour
1 package rapid-rise yeast
3 tablespoons sugar
3 tablespoons nonfat dry milk
1 teaspoon salt
1 cup hot water (125 to 130 °F)
3 tablespoons vegetable oil
1 cup whole wheat flour
Boiling water

DIRECTIONS

Combine 1 cup all-purpose flour, undissolved yeast, sugar, dry milk, and salt in the 1-gallon heavy duty freezer bag with zipper-lock. Squeeze upper part of bag to force out air. Shake and work bag with fingers to blend ingredients. Add hot water and oil to dry ingredients. Reseal bag. Mix by working bag with fingers. Add whole wheat flour; reseal bag and mix thoroughly. Gradually add enough remaining all-purpose flour to make a stiff dough that pulls away from bag.

On floured surface, knead dough 2 to 4 minutes, until smooth and elastic. Cover dough; rest 10 minutes. After 10 minutes, roll dough to 12 x 7-inch rectangle. Roll up from narrow end. Pinch edges and ends to seal. Place in oiled 8 ½ x 4 ½ x 2 1/4-inch glass loaf pan; cover. Place large shallow pan on counter half filled with boiling water. Place baking sheet over shallow pan; let dough rise 20 minutes or until double in size. At this point, bread can be taken home to be baked at 375°F for 25 minutes or until done. Remove from pan and cool on wire rack. Slice with serrated knife to serve.

Handout for Chapter 2, Lesson 1: Body Image

Helping Terry

Scenario

Terry is a 14-year-old girl who lives with her mother and younger brother in an apartment in the city. She helps her family by taking care of her younger brother after school and helping to get dinner ready when her mom gets home from work. Lately, she has been spending a lot of time in front of the television and on her Facebook page with her friends.

Terry feels like she isn't getting enough exercise. She also knows that her family has been eating a lot of food that is not very good for them. She wants to make some healthy changes, but changing is so difficult and she's not sure where to start! We are going to help Terry find a way to start on a path to a healthier life.

Handout for Chapter 2, Lesson 2: Calories In – Calories Out

Calories Burned During One Hour Of Exercise

Table 1 = 75 lbs
Table 2 = 100 lbs
Table 3 = 130 – 190 lbs

The number of calories burned during exercise is affected by body weight, intensity of workout, conditioning level and metabolism. Calories burned per hour are listed below for the example body weights of 75, 100, 130, 155 and 190 pounds. Source: http://www.shapefit.com.

TABLE 1 - 75 LBS

Gym and Home Activities			
Aerobics: low impact	198	Aerobics: high impact	252
Aerobics, Step: low impact	252	Aerobics, Step: high impact	360
Aerobics: water	144	Bicycling, Stationary: moderate	252
Bicycling, Stationary: vigorous	378	Circuit Training: general	288
Rowing, Stationary: moderate	252	Rowing, Stationary: vigorous	306
Ski Machine: general	342	Stair Step Machine: general	216
Weight Lifting: general	108	Weight Lifting: vigorous	216
Training Activities			
Basketball: playing a game	288	Basketball: wheelchair	234
Bicycling: BMX or mountain	306	Bicycling: 12-13.9 mph	288
Bicycling: 14-15.9 mph	360	Boxing: sparring	324
Football: competitive	324	Football: touch, flag, general	288
Frisbee	108	Golf: carrying clubs	198
Golf: using cart	126	Gymnastics: general	144
Handball: general	432	Hiking: cross-country	216
Horseback Riding: general	144	Ice Skating: general	252
Martial Arts: general	360	Racquetball: competitive	360
Racquetball: casual, general	252	Rock Climbing: ascending	396
Rock Climbing: repelling	288	Rollerblade Skating	252
Rope Jumping	360	Running: 5 mph (12 min/mile)	288
Running: 5.2 mph (11.5 min/mile)	324	Running: 6 mph (10 min/mile)	360
Running: 6.7 mph (9 min/mile)	396	Running: 7.5 mph (8 min/mile)	450
Running: 8.6 mph (7 min/mile)	522	Running: 10 mph (6 min/mile)	594
Running: pushing wheelchair, marathon wheeling	288	Running: cross-country	324
Skiing: cross-country	288	Skiing: downhill	216
Snow Shoeing	288	Softball: general play	180
Swimming: general	216	Tennis: general	252
Volleyball: non-competitive, general play	108	Volleyball: competitive, gymnasium play	144
Volleyball: beach	288	Walk: 3.5 mph (17 min/mi)	144

TABLE 1 - 75 LBS

Walk: 4 mph (15 min/mi)	162	Walk: 4.5 mph (13 min/mi)	180
Walk/Jog: jog <10 min.	216	Water Skiing	216
Water Polo	360	Whitewater: rafting, kayaking	180
Daily Life Activities			
Gardening: general	162	Housecleaning: general	126
Mowing Lawn: push, hand	198	Mowing Lawn: push, power	162
Children's Games: 4-square, etc.	180	Raking Lawn	144
Shoveling Snow: by hand	216	Operate Snow Blower: walking	162

TABLE 2 – 100 LBS

Gym and Home Activities			
Aerobics: low impact	264	Aerobics: high impact	336
Aerobics, Step: low impact	336	Aerobics, Step: high impact	480
Aerobics: water	192	Bicycling, Stationary: moderate	336
Bicycling, Stationary: vigorous	504	Circuit Training: general	384
Rowing, Stationary: moderate	336	Rowing, Stationary: vigorous	408
Ski Machine: general	456	Stair Step Machine: general	288
Weight Lifting: general	144	Weight Lifting: vigorous	288
Training Activities			
Basketball: playing a game	384	Basketball: wheelchair	312
Bicycling: BMX or mountain	408	Bicycling: 12-13.9 mph	384
Bicycling: 14-15.9 mph	480	Boxing: sparring	432
Football: competitive	432	Football: touch, flag, general	384
Frisbee	144	Golf: carrying clubs	264
Golf: using cart	168	Gymnastics: general	192
Handball: general	576	Hiking: cross-country	288
Horseback Riding: general	192	Ice Skating: general	336
Martial Arts: general	480	Racquetball: competitive	480
Racquetball: casual, general	336	Rock Climbing: ascending	528
Rock Climbing: repelling	384	Rollerblade Skating	336
Rope Jumping	480	Running: 5 mph (12 min/mile)	384
Running: 5.2 mph (11.5 min/mile)	432	Running: 6 mph (10 min/mile)	480
Running: 6.7 mph (9 min/mile)	528	Running: 7.5 mph (8 min/mile)	600
Running: 8.6 mph (7 min/mile)	696	Running: 10 mph (6 min/mile)	792
Running: pushing wheelchair, marathon wheeling	384	Running: cross-country	432
Skiing: cross-country	384	Skiing: downhill	288
Snow Shoeing	384	Softball: general play	240
Swimming: general	288	Tennis: general	336
Volleyball: non-competitive,		Volleyball: competitive,	

TABLE 2 – 100 LBS

general play	144	gymnasium play	192
Volleyball: beach	384	Walk: 3.5 mph (17 min/mi)	192
Walk: 4 mph (15 min/mi)	216	Walk: 4.5 mph (13 min/mi)	240
Walk/Jog: jog <10 min.	288	Water Skiing	288
Water Polo	480	Whitewater: rafting, kayaking	240
Daily Life Activities			
Gardening: general	216	Housecleaning: general	168
Mowing Lawn: push, hand	264	Mowing Lawn: push, power	216
Children's Games: 4-square, etc.	240	Raking Lawn	192
Shoveling Snow: by hand	288	Operate Snow Blower: walking	216

TABLE 3 - 130 – 190 LBS	130 lbs	155 lbs	190 lbs
Gym & Home Activities			
Aerobics, general	354	422	518
Aerobics, high impact	413	493	604
Aerobics, low impact	295	352	431
Archery (non-hunting)	207	246	302
Automobile repair	177	211	259
Backpacking, general	413	493	604
Badminton, competitive	413	493	604
Badminton, social, general	266	317	388
Basketball, game	472	563	690
Basketball, non-game, general	354	422	518
Basketball, officiating	413	493	604
Basketball, shooting baskets	266	317	388
Basketball, wheelchair	384	457	561
Bicycling, <10mph, leisure	236	281	345
Bicycling, >20mph, racing	944	1126	1380
Bicycling, 10-11.9mph, light	354	422	518
Bicycling, 12-13.9mph, moderate	472	563	690
Bicycling, 14-15.9mph, vigorous	590	704	863
Bicycling, 16-19mph, very fast, racing	708	844	1035
Bicycling, BMX or mountain	502	598	733
Bicycling, stationary, general	295	352	431
Bicycling, stationary, light	325	387	474
Bicycling, stationary, moderate	413	493	604
Bicycling, stationary, very light	177	211	259
Bicycling, stationary, very vigorous	738	880	1078
Bicycling, stationary, vigorous	620	739	906
Billiards	148	176	216
Bowling	177	211	259
Boxing, in ring, general	708	844	1035

TABLE 3 - 130 – 190 LBS	130 lbs	155 lbs	190 lbs
Boxing, punching bag	354	422	518
Boxing, sparring	531	633	776
Broomball	413	493	604
Calisthenics, home, vigorous	472	563	690
Calisthenics, home, light/moderate	266	317	388
Canoeing, on camping trip	236	281	345
Canoeing, rowing, >6 mph, vigorous	708	844	1035
Canoeing, rowing, crewing, competition	708	844	1035
Canoeing, rowing, light	177	211	259
Canoeing, rowing, moderate	413	493	604
Carpentry, general	207	246	302
Carrying heavy loads, such as bricks	472	563	690
Child care: sitting/kneeling-dressing	177	211	259
Child care: standing-dressing, feeding	207	246	302
Circuit training, general	472	563	690
Cleaning, heavy, vigorous	266	317	388
Cleaning, house, general	207	246	302
Cleaning, light, moderate	148	176	216
Coaching: football, soccer, basketball	236	281	345
Construction, outside, remodeling	325	387	474
Cooking or food preparation	148	176	216
Cricket (batting, bowling)	295	352	431
Croquet	148	176	216
Curling	236	281	345
Dancing, aerobic, ballet or modern	354	422	518
Dancing, ballroom, fast	325	387	474
Dancing, ballroom, slow	177	211	259
Dancing, general	266	317	388
Darts, wall or lawn	148	176	216
Diving, springboard or platform	177	211	259
Electrical work, plumbing	207	246	302
Farming, baling hay, cleaning barn	472	563	690
Farming, milking by hand	177	211	259
Farming, shoveling grain	325	387	474
Fencing	354	422	518
Fishing from boat, sitting	148	176	216
Fishing from river bank, standing	207	246	302
Fishing in stream, in waders	354	422	518
Fishing, general	236	281	345
Fishing, ice, sitting	118	141	173
Football or baseball, playing catch	148	176	216
Football, competitive	531	633	776
Football, touch, flag, general	472	563	690

TABLE 3 - 130 – 190 LBS	130 lbs	155 lbs	190 lbs
Frisbee playing, general	177	211	259
Frisbee, ultimate	207	246	302
Gardening, general	295	352	431
Golf, carrying clubs	325	387	474
Golf, general	236	281	345
Golf, miniature or driving range	177	211	259
Golf, pulling clubs	295	352	431
Golf, using power cart	207	246	302
Gymnastics, general	236	281	345
Hackey sack	236	281	345
Handball, general	708	844	1035
Handball, team	472	563	690
Health club exercise, general	325	387	474
Hiking, cross country	354	422	518
Hockey, field	472	563	690
Hockey, ice	472	563	690
Horse grooming	354	422	518
Horse racing, galloping	472	563	690
Horseback riding, general	236	281	345
Horseback riding, trotting	384	457	561
Horseback riding, walking	148	176	216
Hunting, general	295	352	431
Jai alai	708	844	1035
Jogging, general	413	493	604
Judo, karate, kick boxing, tae kwan do	590	704	863
Kayaking	295	352	431
Kickball	413	493	604
Lacrosse	472	563	690
Marching band, playing instrument	236	281	345
Marching, rapidly, military	384	457	561
Moto-cross	236	281	345
Moving furniture, household	354	422	518
Moving household items-upstairs	531	633	776
Moving household items-carrying	413	493	604
Mowing lawn, general	325	387	474
Mowing lawn, riding mower	148	176	216
Music playing, cello, flute, horn	118	141	173
Music playing, drums	236	281	345
Music playing, guitar, classical (sitting)	118	141	173
Music playing, guitar, rock/roll (stand)	177	211	259
Music playing, piano, organ, violin	148	176	216
Paddleboat	236	281	345
Painting, papering, plastering, scraping	266	317	388

TABLE 3 - 130 – 190 LBS	130 lbs	155 lbs	190 lbs
Polo	472	563	690
Pushing or pulling stroller with child	148	176	216
Race walking	384	457	561
Racquetball, casual, general	413	493	604
Racquetball, competitive	590	704	863
Raking lawn	236	281	345
Rock climbing, ascending rock	649	774	949
Rock climbing, rappelling	472	563	690
Rope jumping, fast	708	844	1035
Rope jumping, moderate, general	590	704	863
Rope jumping, slow	472	563	690
Rowing, stationary, light	561	669	819
Rowing, stationary, moderate	413	493	604
Rowing, stationary, very vigorous	708	844	1035
Rowing, stationary, vigorous	502	598	733
Rugby	590	704	863
Running, 10 mph (6 min mile)	944	1126	1380
Running, 10.9 mph (5.5 min mile)	1062	1267	1553
Running, 5 mph (12 min mile)	472	563	690
Running, 5.2 mph (11.5 min mile)	531	633	776
Running, 6 mph (10 min mile)	590	704	863
Running, 6.7 mph (9 min mile)	649	774	949
Running, 7 mph (8.5 min mile)	679	809	992
Running, 7.5mph (8 min mile)	738	880	1078
Running, 8 mph (7.5 min mile)	797	950	1165
Running, 8.6 mph (7 min mile)	826	985	1208
Running, 9 mph (6.5 min mile)	885	1056	1294
Running, cross country	531	633	776
Running, general	472	563	690
Running, in place	472	563	690
Running, on a track, team practice	590	704	863
Running, stairs, up	885	1056	1294
Running, training, pushing wheelchair	472	563	690
Running, wheeling, general	177	211	259
Sailing, windsurfing, general	177	211	259
Sailing, in competition	295	352	431
Scrubbing floors, on hands and knees	325	387	474
Shoveling snow, by hand	354	422	518
Shuffleboard, lawn bowling	177	211	259
Sitting-playing with child(ren)-light	148	176	216
Skateboarding	295	352	431
Skating, ice, 9 mph or less	325	387	474
Skating, ice, general	413	493	604

TABLE 3 - 130 – 190 LBS	130 lbs	155 lbs	190 lbs
Skating, ice, rapidly, > 9 mph	531	633	776
Skating, ice, speed, competitive	885	1056	1294
Skating, roller	413	493	604
Ski jumping (climb up carrying skis)	413	493	604
Ski machine, general	561	669	819
Skiing, cross-country, racing	826	985	1208
Skiing, cross-country, moderate	472	563	690
Skiing, cross-country, slow or light	413	493	604
Skiing, cross-country, uphill, max	974	1161	1423
Skiing, cross-country, vigorous	531	633	776
Skiing, downhill, light	295	352	431
Skiing, downhill, moderate	354	422	518
Skiing, downhill, vigorous , racing	472	563	690
Skiing, snow, general	413	493	604
Skiing, water	354	422	518
Ski-mobiling, water	413	493	604
Skin diving, scuba diving, general	413	493	604
Sledding, bobsledding, luge	413	493	604
Snorkeling	295	352	431
Snow shoeing	472	563	690
Snowmobiling	207	246	302
Soccer, casual, general	413	493	604
Soccer, competitive	590	704	863
Softball or baseball, fast or slow pitch	295	352	431
Softball, officiating	354	422	518
Squash	708	844	1035
Stair-treadmill ergometer, general	354	422	518
Standing-packing/unpacking boxes	207	246	302
Stretching, hatha yoga	236	281	345
Surfing, body or board	177	211	259
Sweeping garage, sidewalk	236	281	345
Swimming laps- fast-vigorous	590	704	863
Swimming laps, freestyle-light	472	563	690
Swimming, backstroke, general	472	563	690
Swimming, breaststroke, general	590	704	863
Swimming, butterfly, general	649	774	949
Swimming, leisurely, general	354	422	518
Swimming, sidestroke, general	472	563	690
Swimming, synchronized	472	563	690
Swimming, treading water, vigorous	590	704	863
Swimming, treading water, moderate	236	281	345
Table tennis, ping pong	236	281	345
Tai chi	236	281	345

TABLE 3 - 130 – 190 LBS	130 lbs	155 lbs	190 lbs
Teaching aerobics class	354	422	518
Tennis, doubles	354	422	518
Tennis, general	413	493	604
Tennis, singles	472	563	690
Unicycling	295	352	431
Volleyball, beach	472	563	690
Volleyball, competitive, in gymnasium	236	281	345
Volleyball, noncompetitive	177	211	259
Walk/run-playing with child-moderate	236	281	345
Walk/run-playing with child-vigorous	295	352	431
Walking, 2.0 mph, slow pace	148	176	216
Walking, 3.0 mph, mod. pace	207	246	302
Walking, 3.5 mph, uphill	354	422	518
Walking, 4.0 mph, very brisk pace	236	281	345
Walking, carrying infant or 15-lb load	207	246	302
Walking, grass track	295	352	431
Walking, upstairs	472	563	690
Walking, using crutches	236	281	345
Wallyball, general	413	493	604
Water aerobics, water calisthenics	236	281	345
Water polo	590	704	863
Water volleyball	177	211	259
Weight lifting/body building, vigorous	354	422	518
Weight lifting, light or moderate	177	211	259
Whitewater rafting/kayaking/canoeing	295	352	431

Handout for Chapter 2, Lesson 3: Do You See What I See?

Famous Person Body Chart – Youth Perceptions

List the names of TV, movie, and sports personalities. Put a check in the column that indicates your opinion of their body type. At the end of the week, count up how many famous people have "Just Right" bodies, how many you think are "Too Fat" (Need to lose weight), or "Too Thin" (Need to gain weight).

Name Of Famous Person	**Just Right**	**Too Fat** (Need to lose weight)	**Too Thin** (Need to gain weight)

Handout for Chapter 2, Lesson 3: Do You See What I See?

Eating Disorders Fact Sheet

Behaviors

This is a list of general behaviors that may suggest the presence of an eating disorder.

- ❑ Use of diuretics, laxatives, diet pills
- ❑ Obsessed with calories, fat, exercise
- ❑ Induced vomiting with ipecac or self- induced
- ❑ Very low fluid intake
- ❑ Depressed, low self-esteem, withdrawn, lack of interest in social events
- ❑ No admission of any problem but talks about food frequently
- ❑ Avoids mealtimes and eating or eats alone
- ❑ Refuses certain foods
- ❑ Frequently weighs self
- ❑ Denies being hungry
- ❑ Hides food or has unusual rituals
- ❑ Often cold, fatigued

Anorexia

Definition

Self-imposed starvation to lose weight to be very thin. Person becomes fearful and obsessive about being fat, focuses on food, weight, and dieting to the extent that many other things are ignored. Anorexia is diagnosed by the presence of other medical complications caused by lack of nutrients.

Physical Results of Anorexia

- ❑ Loss of muscle
- ❑ Loss of endurance, poor coordination
- ❑ Decreased speed and strength
- ❑ Increased heart function
- ❑ Loss of bone mass and thinning hair
- ❑ Amenorrhea
- ❑ Irritability
- ❑ Constipation or incontinence
- ❑ Bruises easily
- ❑ Headaches, sore joints

Diagnosing Anorexia

- ❑ Body weight maintained at least 15% below expected weight
- ❑ Intense fear of becoming obese although already underweight
- ❑ Self- image distorted--believes self to be fat, even though underweight
- ❑ For females, lack of at least 3 menstrual cycles in a row

Handout for Chapter 2, Lesson 3: Do You See What I See?

Eating Disorders Fact Sheet (continued)

Bulimia

Definition
Binge eating followed by purging. Most common purge is self-induced vomiting, but may also include use of laxatives and excessive exercise. May be the result of emotional stress or a desire to lose weight quickly. When hunger occurs, the person will binge, but then guilt triggers the purging. Depression and low self esteem result.

Physical Results of Bulimia

- ❑ Bad breath
- ❑ Tooth enamel destroyed
- ❑ Electrolyte imbalance
- ❑ Irregular heartbeat
- ❑ Permanent damage to throat, mouth and esophagus from acid in vomit

Diagnosing Bulimia

- ❑ Recurring episodes of binge eating (eating large amounts of food in less than 2 hours)
- ❑ Fearful of not being able to stop while binging
- ❑ Self- induced vomiting, use of laxatives, or rigorous dieting, fasting, or exercise
- ❑ At least 2 binges per week for at least 3 months
- ❑ Over emphasis on body image

Compulsive Overeating (Binge Eating)

Definition
Compulsive overeating, also called binge eating, is characterized by recurrent overeating to the point of discomfort or actual illness. An inability to control the amount of food intake results in being overweight. This is unhealthy and creates guilt and shame.

Physical Results of Compulsive Overeating

- ❑ Continuing weight gain leading to obesity
- ❑ Frequent changes in weight
- ❑ Excessive sweating and shortness of breath
- ❑ Mood swings
- ❑ Secretive eating habits, including hiding food
- ❑ Often tired but has trouble sleeping

Diagnosing Compulsive Overeating

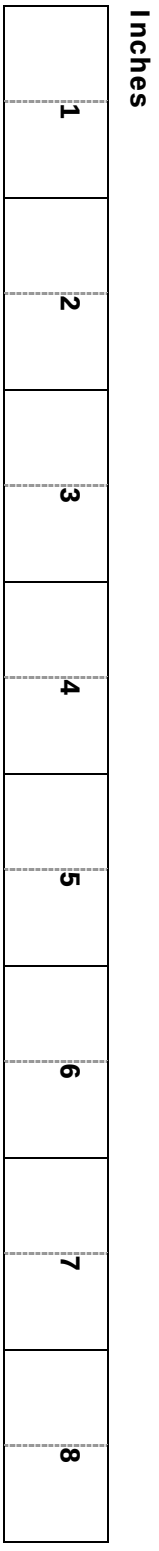
- ❑ Frequent weight gain and loss—chronic dieting
- ❑ Secretive food patterns- hides food, eats at unusual times
- ❑ Frequent loss of breath after light activity
- ❑ Knows eating is out of control, makes disparaging comments about self after eating
- ❑ Eats to the point of discomfort regularly
- ❑ Eats very quickly

Handout for Chapter 2 Lesson 3: Do You See What I See?

Measure Your Frame Size Ruler

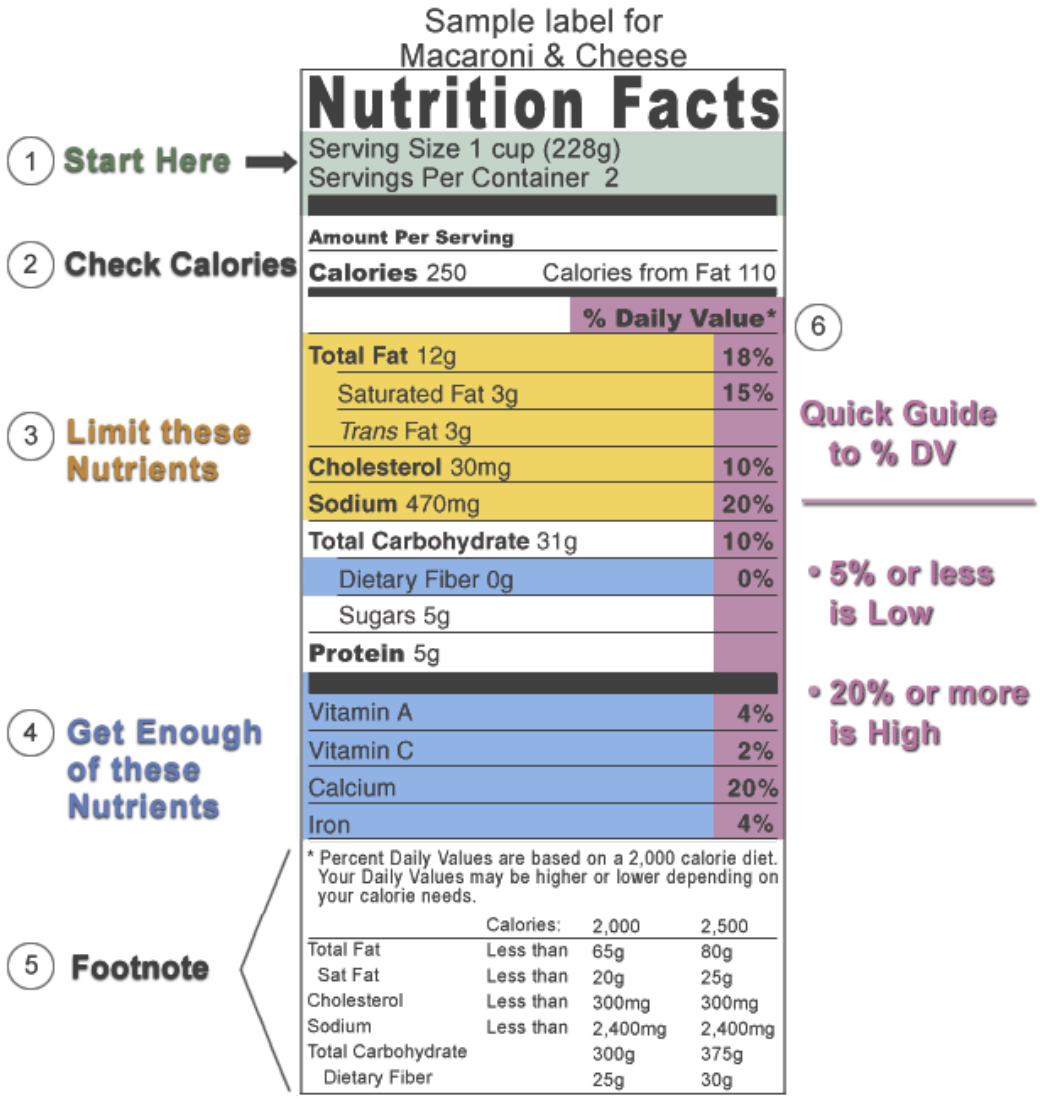
Use this 8" ruler to measure wrist for frame size.

✂ Cut out this ruler.



Handout for Chapter 3, Lesson 1: Nutrient Knowledge

Sample Label for Macaroni and Cheese

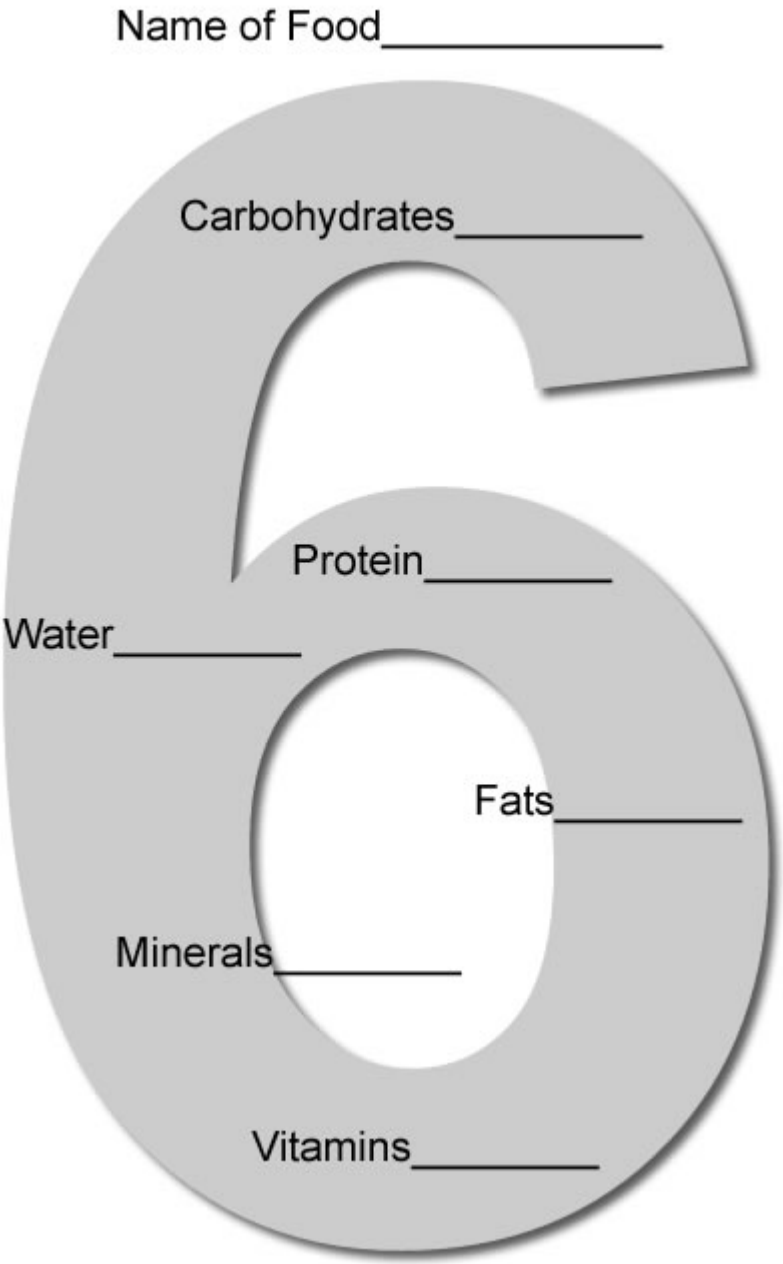


INGREDIENTS: ENRICHED MACARONI PRODUCT (WHEAT FLOUR, NIACIN, FERROUS SULFATE (IRON), THIAMIN MONONITRATE (VITAMIN B1), RIBOFLAVIN (VITAMIN B2), FOLIC ACID; CHEESE SAUCE (WATER, CANOLA OIL, MILK, WHEY PROTEIN CONCENTRATE, MILK PROTEIN CONCENTRATE, SODIUM PHOSPHATE, MILKFAT, SALT, WHEY, CONTAINS LESS THAN 2% OF SODIUM ALGINATE, LACTIC ACID, SORBIC ACID AS A PRESERVATIVE, OLEORESIN PAPRIKA (COLOR), CHEESE CULTURE, ANNATTO (COLOR), NATURAL FLAVOR, ENZYMES, VITAMIN A PALMITATE)

Handout for Chapter 3, Lesson 1: Nutrient Knowledge

The Big 6

The Big 6



Handout for Chapter 3, Lesson 1: Nutrient Knowledge

Recipe: MyPlate Salsa

Recipe

MyPlate Salsa

UTENSILS
Cutting knife
Cutting board
Measuring cups/spoons
Mixing/serving spoons
Mixing/serving bowl
Can opener

INGREDIENTS
1 large can tomatoes, chopped
1 clove garlic, minced
1 green pepper, finely chopped
2 tablespoons lime juice
4 green onions, finely chopped
1 can corn, drained
¼ cup chopped cilantro
1 can black beans, rinsed
1 small jalapeno, finely chopped
Low-fat corn or whole grain tortilla chips

DIRECTIONS
Combine all ingredients. Serve with tortilla chips.

Handout for Chapter 3, Lesson 2: Break It Up – Breakfast First!

Building Better Breakfasts

Plan three easy, nutritious, breakfasts that you can fix by yourself. Make sure you include at least three different food groups in each one!

Breakfast 1	
Breakfast 2	
Breakfast 3	

Handout for Chapter 3, Lesson 2: Break It Up – Breakfast First!

Recipe: Four Fun Breakfasts

Recipes

Four Fun Breakfasts

UTENSILS

Cutting board
Sharp knife
Measuring cups/spoons
Microwave oven
Blender

RECIPE	INGREDIENTS	DIRECTIONS
Fruit and Nut Oatmeal	¼ cup dried cranberries 2 tablespoons sliced almonds Quick oatmeal Water	Add the cranberries and almonds (or any fruit and nut) to quick oatmeal and water. Microwave for sixty seconds or as directed on quick oatmeal package.
Breakfast Smoothie	½ cup low-fat milk (1% or fat free) 3-5 frozen strawberries Banana	Place the milk, strawberries, and half a banana in a blender. Blend for 30 seconds. Enjoy your drink with a whole wheat bagel. Substitute any fresh or frozen fruits or 100% fruit juice.
Banana Dogs	1 tablespoon peanut butter Whole grain hot dog bun Banana 1 tablespoon raisins Optional: whole grain cereal	Spread the peanut butter on a whole grain hot dog bun. Add a banana and sprinkle with raisins. Instead of using a hot dog bun you may spread a banana with peanut butter and roll it in whole grain cereal or a whole wheat tortilla.
Breakfast Taco	2 tablespoons grated Monterey Jack cheese Corn tortilla Salsa	Sprinkle the Monterey Jack cheese over a corn tortilla. Fold tortilla in half and microwave for twenty seconds. Top with salsa.

Handout for Chapter 3, Lesson 2: Break It Up – Breakfast First!

Recipe: Banana Split Cereal

Recipe

Banana Split Cereal

UTENSILS

Cutting knife
Cutting board
Measuring cups/spoons
Mixing/serving spoons
Serving bowl
Colander

INGREDIENTS

1 small ripe banana
Blueberries (or other fresh fruit)
½ cup nonfat vanilla yogurt
½ cup whole grain cereal (Cheerios, Wheaties, Grape Nuts or Bran Flakes)

DIRECTIONS

Peel banana and slice it lengthwise from tip to tip. Wash blueberries by placing in a colander and running water over them. If you use other fruits, wash them and cut into small pieces. Sprinkle the cereal on top of the yogurt. Arrange the banana halves on either side of the yogurt. Sprinkle the top with the blueberries or other fruit. Makes 1 breakfast serving or 4-6 samples.

Handout for Chapter 3, Lesson 3: Snack Attack

Recipe: MyPlate Pita Pizza

Recipe

MyPlate Pita Pizza

UTENSILS

Cutting board
Sharp knife
Can opener
Mixing/serving bowl
Dinner plate
Toaster oven or regular oven
Baking sheet

INGREDIENTS

4 whole wheat pita bread
¼ cup low-sodium spaghetti sauce or pizza sauce
¼ teaspoon dried oregano
1 cup chopped red or green bell pepper
1½ cups canned pineapple chunks packed in 100% fruit juice, drained
1/3 cup chopped lean, low-sodium ham
¾ cup shredded reduced-fat cheddar cheese

DIRECTIONS

Heat oven to 400° F. Place pita bread on baking sheet. Spread each pita with 1 tablespoon of spaghetti sauce. Sprinkle with oregano. Top each pita with pepper, pineapple, ham, and cheese. Bake until hot and cheese bubbles, about 5 minutes. Remove pizzas from baking sheet. Place each pizza on a dinner plate and serve. Makes 4 (1 piece) servings.

Handout for Chapter 3, Lesson 4: Vegetarianism in a Nutshell

Recipe: Tacos

Recipe

Tacos

UTENSILS
Measuring cups (dry and liquid)
Mixing bowls/spoons
Serving plate
Saucepan
Can opener
Plates
Bowls
Cutting boards
Cutting knives
Grater

INGREDIENTS
Miniature taco shells
1 16-ounce can vegetarian refried beans
Shredded lettuce
Finely diced, firm ripe tomatoes
Grated Cheddar or Monterey Jack cheese or soy cheese
Mild taco sauce, optional

DIRECTIONS
Heat the taco shells according to package directions while preparing the filling. Place on a serving plate. Combine the refried beans in a small saucepan with 1/4 cup water. Stir together and cook until warmed through. Transfer all or part of the warmed beans to a serving bowl. Arrange the lettuce, tomatoes, and cheese in individual small serving bowls or in small mounds on a platter. Have everyone fill their tacos with a little of the refried beans, then some lettuce, tomatoes, and cheese. Top taco with a little sauce if desired.

Handout for Chapter 3, Lesson 4: Vegetarianism In a Nutshell

Recipe: Hummus

Recipe

Hummus

UTENSILS
Measuring cups (liquid)
Measuring spoons
Mixing bowls/spoons
Serving plate/bowl
Can opener
Cutting boards
Cutting knives

INGREDIENTS
15 ounce can chickpeas, rinsed and drained
¾ cup water
½ cup Tahini
¾ teaspoon salt
1 clove garlic
3 tablespoons olive oil
Freshly ground black pepper
2 tablespoons fresh parsley leaves, chopped
2 teaspoons lemon juice
Pita bread or chips

DIRECTIONS
In a food processor (or blender) combine first six ingredients and process until smooth. Season with salt and pepper to taste. Refrigerate. When ready to serve stir in remaining 2 teaspoons of lemon juice and chopped parsley. Serve with pita bread or chips.

Losing Meat, But Keeping a Child's Diet Balanced[10]

By MINDY SINK

BOULDER, Colo. -- After seeing the movie "Babe" at age 9 and realizing the source of what was on her plate, Lauren Pierpoint of Boulder decided to stop eating meat. At age 6, Nathan Kessel of Boston was given a choice by his parents between a vegetarian diet and eating meat regularly; he has been a vegetarian for three years now. With a finicky toddler who would spit out any type of meat, Heidi Feldman of Norcross, Ga., decided "almost overnight" to put her entire family on a vegetarian diet. School lessons about endangered species combined with a visit to the zoo persuaded 7-year-old Laura Grzenda of Boulder to stop eating meat.

"Every time I put a piece of meat in my mouth, I felt like the animal was talking to me," Laura, now 12, said. "It was saying 'Moo, don't eat me.' " For Mrs. Feldman, the choice was a compromise. "Eating became a battleground and it was difficult for me to cook two different meals -- one for the three of us who ate meat and a vegetarian meal for Nicole," she said.

Vegetarian diets for children have become more accepted in recent years by some parents, pediatricians, nutritionists and even the renowned child care authority Dr. Benjamin Spock. In the seventh edition of "Baby and Child Care," published shortly after his death, in 1998, Dr. Spock recommended that a vegetarian diet begin at age 2, with fortified foods, drinks and daily vitamin and mineral supplements. Dr. Spock believed his own health improved after he switched to a vegetarian diet late in life.

Although Dr. Spock's push for a nearly lifelong vegetarian diet generated some controversy among his peers, it did not settle the matter of whether a meatless diet was ideal at any age, particularly in children and adolescents. Yet pediatricians in Colorado and elsewhere said in recent interviews that they were seeing more children and adolescents choosing vegetarian diets.

"I would say there is definitely a trend toward meatless diets," said Johanna Dwyer, a professor at Tufts University School of Nutrition and the director of the Frances Stern Nutrition Center at the New England Medical Center. But Dr. Dwyer noted that it was difficult to track the exact number of vegetarians, and therefore not easy to spot a trend.

A Gallup poll in September 1999 found that 6 percent of adult Americans considered themselves vegetarian. But an earlier poll commissioned by Vegetarian Times magazine went a step further to look at the families of adult vegetarians.

[10] Source: *Losing Meat, But Keeping a Child's Diet Balanced*, Mindy Sink**,** *The New York Times Learning Network,* July 25, 2000. This article can be found at: http://www.nytimes.com/learning/teachers/lessons/20000725tuesday.html.

Handout for Chapter 3, Lesson 4: Vegetarianism in a Nutshell

Losing Meat, But Keeping a Child's Diet Balanced page 2 of 4

In that poll, conducted in 1992 by Yankelovich, Skelly and White/Clancy Schulman, 37 percent of the 12.4 million people who described themselves as vegetarians had children under 18. Of those, 24 percent had at least one child at home who was also a vegetarian.

The reasons for choosing a vegetarian diet are varied and include picky eating, animal rights and environmental activism and the desire to be "hip" within certain peer groups. Parents sometimes choose the diet for their children, in an effort to reduce risks of certain illnesses or to adhere to religious or spiritual beliefs.

Stephanie Pierson, the author of "Vegetables Rock! A Complete Guide for Teenage Vegetarians" and the mother of a 17-year-old vegetarian, said she noticed a "hipness" factor for many kids. "It seems to work on a million different levels -- there are health reasons and animal rights, just a concern for the planet," she said.

The term vegetarian generally means a person who does not eat meat, and instead favors a diet of foods from plant sources. A lacto-vegetarian is someone who eats dairy products but no eggs, meat, fish, poultry or seafood; an ovo-vegetarian eats eggs but no meat, fish, poultry or seafood; a pesco-vegetarian will eat fish but no other meat; a pollo-vegetarian eats chicken but no other meat. One of the more strict diets is the vegan (pronounced VEE-gun), in which someone eats food only from plant sources and may also avoid eating honey or taking animal-based supplements and immunizations or wearing leather clothing.

Ms. Pierson's daughter, Phoebe, became a vegetarian at 13 after seeing an animal rights movie, where she learned the origin of veal. "I called it 'veal to zeal' and immediately I expected it to last maybe a week," Ms. Pierson said. At Ms. Pierson's house in South Salem, N.Y., meal times can be chaotic with a pot roast for her husband and stir-fried rice with tofu for her daughter. "Everybody in the family eats different stuff, but I try to have some sit-down meals together," she said.

Ms. Pierson said her daughter ate a lot of hummus and pita bread, as well as rice and beans, veggie burgers and non-cheese pizza for meals and bagels, guacamole and fresh fruit for snacks.

Some experts believe these types of healthier eating choices with low-fat, high-fiber foods should be introduced early. "Raising children as vegetarians has the advantage that we as adults tend to continue the diet we're raised on," said Dr. David Levitsky, a professor of nutrition and psychology at Cornell. "I find it almost impossible to make a nutritional argument against it."

But there is some concern that fat or sugar may replace meat in some children's diets. The American Dietetic Association has taken the position that "appropriately planned vegetarian diets are healthful, are nutritionally adequate and provide health benefits in the prevention and treatment of certain diseases."

Handout for Chapter 3, Lesson 4: Vegetarianism in a Nutshell

Losing Meat, But Keeping a Child's Diet Balanced page 3 of 4

The younger the children are, the more careful the parents need to be with their diets, said Dr. Nancy Krebs, co-director of Coordinated Nutrition Services at Children's Hospital in Denver. "Growth can easily be impacted, along with energy and nutritional requirements."

Concern lies with those who do not get enough protein, vitamins B12 and D, iron, calcium and zinc in their diets. All of these nutrients are found in animal sources, in which they are more easily absorbed by the body. Children need all of those elements for energy, cognitive thought and achieving maximum growth potential with proper tissue and bone density. When children are lacking essential nutrients, they can develop malnutrition, rickets, anemia and lack of menstruation in girls. They could also be susceptible to osteoporosis later in life.

"I see a lot of vegetarian kids who shouldn't be vegetarians," said Dr. Johanna Riley, a naturopath who practices in Boulder. "I'm not seeing swollen abdomens, like you would in Africa or Kosovo when there is malnutrition, but I'm seeing kids who are not vital. I see kids who are really pale, they get sick a lot with colds, they're tired and don't have good muscle tone."

Adequate caloric intake is an issue in any diet for children. "The big risk for growing children is getting enough calories in," said Dr. Nanci Grayson, a nutritionist in Boulder, who is raising her two children as vegetarians. "Because children have smaller stomachs, and they need to eat a great deal more bulk of legumes, nuts, grains, soy, beans and other foods. They might get full faster and, therefore, be eating less than their bodies need." Vegetarian diets are typically high in fiber, increasing the risk that nutrients will pass through the body before they are fully used, and weight loss may occur.

Fran Grzenda of Boulder said she tried to prepare vegetarian meals for the whole family, but added that she, her husband and their son looked forward to "burger nights" when their vegetarian daughter, Laura, had a sleepover at a friend's house. Laura acknowledged she was a picky eater, but said she liked "tofu in soups, pasta, guacamole, burritos" -- and chicken fingers with honey.

She said she noticed when she was 8, about a year after going vegetarian, that she felt weak and tired more often. She and her mother introduced some fish, chicken and turkey back into her diet. "Someday I'd like to be a strict vegetarian," she said. Many parents worry that, unsupervised, their children will fall back on pizza and bagels.

"That's the biggest unknown, the lunches," said Kim Pierpoint of Boulder, whose daughter has been a vegetarian for four years now. "Lauren's favorite things on the school lunch menu are pizza or nachos." To reduce fat in school lunches, the United States Department of Agriculture recently lifted restrictions on how much soy could be used in federally subsidized lunches.

Handout for Chapter 3, Lesson 4: Vegetarianism in a Nutshell

Losing Meat, But Keeping a Child's Diet Balanced page 4 of 4

Soy, a popular protein source in vegetarian diets, can be found in tofu; soy cheese and milk and other soy foods are also available. Sloppy Joes might be replaced by veggie burgers or tofu-filled ravioli in school lunches.

Whether it is the choice of the parent or the child not to eat meat, there seems to be increasing support, in children's books with vegetarian characters, in restaurant and school cafeteria menu choices and in Internet chat rooms. The Vegetarian Resource Group has recently started a parents' network on its Web site where people can exchange recipes and advice.

The consensus among parents, nutritionists and doctors is that children need balanced and varied diets, whether they include meat or not. "Data show that young adults who consume a vegetarian diet are just as healthy, or more so, than those who are not, and the key is sufficient variability," Dr. Levitsky said.

Handout for Chapter 3, Lesson 6: Energy Drinks and Foods

Recipe: Homemade Sports Drink

Recipe

Homemade Sports Drink

UTENSILS

1 gallon container
Liquid measuring cups/spoons
Mixing spoons
Can opener

INGREDIENTS

1 6-ounce can frozen concentrate orange juice (follow instructions on can)
2 tablespoons lemon juice
1 tablespoon lime juice
3/4 teaspoon salt
Water

DIRECTIONS

Mix all ingredients, adding enough water to equal one gallon. Refrigerate and use as a refreshment in the coming week.

OPTIONAL

Try this even easier recipe: 1 cup of orange juice, 1 cup of water and a pinch of salt.

Handout for Chapter 4, Lesson 1: Selling or Telling

Finding Good Food on the Internet

Finding Good Food on the Internet

Use a search engine like Google or Yahoo to answer questions and complete the activities below.

Go to www.google.com or www.yahoo.com and search for healthy recipes.

1. **Describe two recipes that incorporate at least two vegetables and a whole grain.**

Name of recipe #1:	
Recipe ingredients:	
Name of recipe #2:	
Recipe ingredients:	

2. **Describe a recipe that uses beans instead of meat and includes two vegetables.**

Name of recipe:	
Recipe ingredients:	

3. **Describe a healthy ethnic recipe.**

Name of recipe:	
Recipe ingredients:	

Buying Shoes: Construction, Fit/Comfort, and Price

Here are the most important qualities you should look for when buying an athletic shoe:

CONSTRUCTION

Look for stitching that is even and straight. The sole of the shoe should be firmly attached to the upper. Check the inside and outside for irregular bumps and rough spots.

FIT AND COMFORT

If shoes don't fit properly, you won't be able to run and jump your best. Shoes that fit poorly can make your feet hurt and contribute to foot problems. Here are some tips on fitting:

- Shop late in the day when your feet are their largest.
- Measure your foot each time you need to purchase a new pair of shoes. You are growing and the size that fit you six months ago might not fit now.
- Try on the shoes with the type of socks you will be wearing with the shoes.
- Try on both shoes. It is common for one foot to be slightly larger than the other. A shoe may feel comfortable on one foot, but not on the other.
- Look for shoes that give your toes room to wiggle. There should be about ½ inch or a thumb width between the biggest toe and the end of the shoe. Check this measurement while standing.
- Make sure your heel is securely in the shoe and does not slip.
- At the shoe store, walk around before purchasing the shoes to give them a short test run. Try jumping, turning, and running a little to see how they feel. The shoes should feel comfortable when you first try them on.
- Some brands may fit a particular shape of foot better than other brands.

COST

No matter who is advertising the shoe or what name brand is on the shoe, the most important thing to consider when buying a shoe is making sure it fits your foot comfortably. Cost is also a consideration. The most expensive shoe, or the most popular shoe, is not necessarily the best buy for your foot. Some tips are:

- Costs vary greatly from one shoe to another. Some brands are advertised heavily to encourage you to buy them.
- Some shoes are endorsed by famous athletes. No matter who is advertising the shoe or what name brand is on the shoe, the most important thing to consider when buying a shoe is making sure it fits your foot comfortably.
- Some brands may fit a particular shape of foot better than others.

Buying Shoes: Construction, Fit/Comfort, And Price continued

LAST

The form on which a shoe is constructed is called a last. The last determines the inside shape of the shoe. There are three types of lasts: straight, curved, or semi-curved. If you look at the sole, you can see what kind of last has been used in the construction of the shoe.

- Straight last – If you draw a line down the middle of the bottom of the shoe, both sides will look symmetrical. This last is good for someone with a low arch or flat foot because it has more material at the midsole to add support.
- Semi-curved last – This last has a slight curve inward at the insole and is good for someone with a normal arch.
- Curved last - This last curves inward at the insole and is good for someone with a high, rigid arch.

Handout for Chapter 4, Lesson 2: Which Sport, Which Shoe?

Athletic Shoe Situations

SITUATION 1 – SHOES FOR PHYSICAL EDUCATION CLASS (School Age)
It is back to school time and you need a new pair of shoes to wear to school and to use for PE class. You want a shoe that looks good, but also can be used to run on the track and play a variety of sports. The shoe must be durable and able to stand up to everyday use and provide comfort and support to your foot as you will be wearing it all day. You have $75 to spend on this shoe and your parents are willing to pay extra for the tax. Use this space to show which shoes you considered. Explain why you chose the one you did.

_____

_____

_____

_____

_____

SITUATION 2 - SHOES FOR BASKETBALL (Middle School • Teen)
You were selected to play on the school basketball team. You need to purchase a pair of basketball shoes that will be comfortable and withstand a lot of use as you will be practicing in them every day. The team colors are green and gold and you want shoes that will look good with your uniform. Your parents have allowed $120 for this purchase including the cost of tax. Find at least 4 pairs of shoes that fit these criteria and choose the one you think is best. Use this space to list your choices in the order of preference and explain why.

_____

_____

_____

_____

_____

Handout for Chapter 4, Lesson 3: Label Lingo

Working On The Macaroni and Cheese Label

STEP 1: THE SERVING SIZE

- What is the serving size for macaroni and cheese?
- How many servings are in this product?
- How much macaroni and cheese do you usually eat?

If you consumed 2 cups of macaroni and cheese:

- How many calories did you consume?
- How many grams of fat (total fat) did you consume?

STEP 2: CALORIES (AND CALORIES FROM FAT)

- How did you determine the number of calories in 2 cups? Make sure you take serving size into consideration.
- Based on your daily calorie needs, could this be considered a low calorie food?

STEP 3 & 4: THE NUTRIENTS: HOW MUCH?

- Which nutrients should we limit?
- Which nutrients are we striving to get enough of?

STEP 5: UNDERSTANDING THE FOOTNOTE ON THE BOTTOM OF THE NUTRITION FACTS LABEL

- All of the information on the Nutrition Facts Label is based on how many calories a day?

STEP 6: THE PERCENT DAILY VALUE (%DV)

- What percent daily value is considered “low”?
- What percent daily value is considered “high”?
- How does “calcium” rate? Is it “low” or “high”?

Handout for Chapter 4, Lesson 3: Label Lingo

Label Scavenger Quest

1. Which foods in your kitchen are labeled whole grain?

2. Which foods are considered low in fat? Recall that it has to be less than 5% total fat per serving.

3. Which foods in your kitchen are considered high in fat? They have to contain 20% or more total fat per serving.

4. Which foods in your kitchen are foods that are high in the nutrients that you are striving to get more of? For example: calcium, Vitamin A, Vitamin C.

5. Compare labels looking for descriptive words. Check the ingredients list for whole grains. A food is considered a whole grain food if the first ingredient listed is a whole grain.

6. Check for fiber on the label. Remember that 3 grams of fiber per serving is considered good, and 5 or more grams per serving is excellent. Read the ingredients on the cracker, cereal and bread labels.

Handout for Chapter 4, Lesson 3: Label Lingo

Trans Fat Worksheet

Defining Trans Fat

What is trans fat?

When did we start to include trans fat on the label?

In what food products are trans fats typically found?

What makes trans fat different from other fats?

How will I know if a product has trans fat?

Why would you want to limit the amount of trans fat that you get in your foods?

The Hunt for Trans Fat

Check your kitchen and make a list of any products you can find that have trans fat.

Look at your margarine labels. Do they list trans fat?

Handout for Chapter 4, Lesson 4: Media Mania

Advertising Sells!

What is your favorite television advertisement?

Describe your favorite food advertisement and tell why you like it. The ad can be one you saw on TV, in a magazine, on the radio, on the Internet, etc.

If you like the ad, the marketing company has done its job well. Would you buy their product based on this ad? _____Yes _____No

What in the ad makes you want to buy the product? Or, if you wouldn't buy it, why not?

Do you think this is a healthful food choice? Why or why not? Does it fit into the MyPlate recommendations?

Does the ad mention anything about the nutritional value of this food product? If so, what does it say?

In what ways does this ad appeal to you and your friends? People are attracted to advertised products for many different reasons. For example, it may:

- Appeal to your sense of health and happiness
- Have an emotional impact
- Appeal to your senses — tastes good, looks good, smells good, etc.
- Save you money
- Offer "freebies"
- Appeal to your need to belong to the group
- Allow you to connect to the celebrity spokesperson
- Clearly be the best choice. The ad reflects the high quality of the product.

Handout for Chapter 4, Lesson 5: Eating Out

Ten Tips For Choosing Healthier Food When Eating Out

You can enjoy eating at your favorite fast food restaurants and not even have to give up your favorite foods! Here are some tips.

1. Plan what you will eat instead of eating impulsively. You can budget your calories. If you know you will be eating calorie-laden foods later, you can eat lighter meals at other times of the day.

2. Avoid super-size portions. Choose a regular burger instead of the double burger, or a small order of fries instead of the large order. For example, a Whopper has 670 calories while a Whopper Junior has 340 calories. A small French Fries has 340 calories and a large serving has 500 calories.

3. Use ketchup, mustard, salsa, or other fat-free spreads instead of high calorie spreads like mayonnaise or special sauces.

4. Use low-fat or fat-free salad dressings and ask for them on the side. If you overdress your salad it can be as high in calories as a Whopper.

5. Avoid toppings such as fried croutons, bacon bits, olives, cheese, etc.

6. Avoid pre-made salads that are made with heavy dressings and mayonnaise.

7. Choose baked, grilled or broiled foods instead of fried foods. A baked potato (watch the toppings) or grilled or broiled chicken, are good choices.

8. If you choose deli sandwiches, the best choices are roast beef or turkey. Remember that adding just one tablespoon of mayonnaise can more than triple the fat in these sandwiches.

9. Remove the skin and breading from chicken and avoid wing meat. This can cut the fat in half!

10. You can ask for the nutrition information. Some fast-food restaurants post nutrition information. Use it to make healthier choices.

Handout for Chapter 4, Lesson 5: Eating Out

Fast Food - Line 'Em Up

Here are some favorite fast food items and their total calories.

Burger King Double Whopper with Cheese	1,010
Domino's Meatzza Feast – 2 slices	754
Classic Cinnabon Roll	730
Taco Bell Fiesta Taco Salad with Chicken	730
Burger King Original Chicken Sandwich	660
Domino's Pizza – 2 slices pepperoni cheese	614
Sausage, Egg and Cheese McGriddle	560
McDonald's Quarter Pounder with Cheese	510
Kentucky Fried Chicken (KFC) extra crispy breast	510
Burger King Large Fries	500
Dunkin Donut – blueberry muffin	500
Kentucky Fried Chicken (KFC) Hot Wings Value Box	490
Subway Classic Italian BMT Sub	410
Burger King Croissan'wich with Sausage, Egg and Cheese	340
Taco Bell Burrito Supreme with Steak	340
Dunkin Donut Whole Wheat Bagel	320
McDonald's Egg McMuffin	300
Dunkin Donut – glazed yeast	260
Taco Bell Taco Supreme	260
Subway Veggie Delite Sub	230
Taco Bell Soft Beef Taco	200

Handout for Chapter 4, Lesson 5: Eating Out

Recipe: Toaster Oven Pizza

Recipe

Toaster Oven Pizza

UTENSILS

Cutting board
Cutting knife
Measuring cups and spoons
Toaster oven or regular oven
Cheese grater
Pizza pan or cookie sheets

INGREDIENTS FOR EACH PIZZA

2 tablespoons pizza or spaghetti sauce
½ whole wheat English muffin
Assorted veggies - sweet peppers (red, green, yellow), mushrooms, broccoli, onions, black olives, roasted peppers or others.
2 tablespoons shredded cheese

DIRECTIONS

Split English muffin and share the other half with a friend. Spread pizza sauce on muffin half. Top with assorted veggies of your choice. Sprinkle with cheese. Place in toaster oven and bake at 400° for 10 minutes or until cheese is melted. Enjoy! Makes 1 serving

Handout for Chapter 4, Lesson 5: Eating Out

Clarifying Menu Muddle

These tips will help you get the most from the menu.

1. Read the menu carefully.

2. Look for key terms that would indicate low fat preparation, such as:

   - Steamed
   - In its own juice
   - Poached
   - Broiled
   - Garden fresh
   - Roasted
   - Baked
   - Grilled

3. Beware of terms below. Ask for broiled instead of fried, toppings on the side (salad dressing, butter, sour cream, etc.).

   - Fried, pan-fried, crispy
   - Buttered
   - Au gratin, cheesy, scalloped

4. Ask for healthier substitutions – baked potato instead of fries, salad or steamed vegetables.

5. Share – feel free to ask for a 2nd plate when you order a meal that is plenty for two or plan to take half home.

6. Scrutinize the buffet line and the salad bar. Buffet lines can often become temptations to overeat. Select what you want and know when to stop!

7. Look for items that are not swimming in sauces.

8. Avoid heavily breaded items.

9. Watch your portion size.

10. Avoid salad items that are heavily dressed. Ask for the dressing on the side.

11. Select fresh fruits, vegetables and broiled, baked and grilled meats.

12. Ask for whole grain breads.

13. If a dessert sounds tempting, order fresh fruit or sorbet. If you do order pie, cake or ice cream, share it with a friend.

Handout for Chapter 4, Lesson 5: Eating Out

Eating Out and Eating In – Go Lean With Protein

Lesson 2:
Eating Out and Eating In – Go Lean With Protein

Lesson Highlights

Objectives

Students will:
- Identify foods in the meat and beans group.
- Analyze food choices from fast food restaurants, choosing lower fat alternatives.

Curriculum Connections:
Math, Language arts, Health

Student Skills Developed:
- Using viewing skills and strategies to understand and interpret visual media
- Reading and interpreting data from charts
- Recording data

Materials:
- *Where's the Fat?* worksheet for each student
- Computers with Internet access

Getting Started:

- Ask several students to share what they ate for dinner yesterday. Let several students respond. Point out that many students started by naming a food that is a member of the meat and beans group – chicken, hamburger, fish.
- Tell students that these are foods that contain protein. Challenge students to list as many foods as they can from this food group.
- Did students list the plant foods that are part of this group – dry peas and beans? (*black beans, chickpeas, falafel, kidney beans, lentils, lima beans, navy beans, pinto beans, soy beans, split peas, tofu, white beans*) Nuts and seeds? (*almonds, cashews, hazelnuts, mixed nuts, pecans, pistachios, pumpkin seeds, sesame seeds, sunflower seeds, walnuts*) Peanuts and peanut butter? Point out that these foods are staples in many cultures.
- Tell students that all these foods include protein. Scientists sometimes call protein the building block for bones, muscles, cartilage, skin, and blood.
- Point out that most people get enough of these foods. One of the challenges is in choosing foods from this group that are lower in fat.

Eating Out and Eating In – Go Lean With Protein

Activity: Where's the Fat?

- Hand out the *Where's the Fat?* worksheet. Tell students that it includes information about fat found in many meat and bean foods. Point out that while they probably don't decide what their family is going to eat for dinner, students may select what they eat when their family eats out. Some of their favorite meat and bean foods may be very high in fat.
- Tell students that nearly all chain restaurants have nutrition information available. They can ask for information before they make their choice.
- Have students answer the questions at the bottom of the worksheet. Working in groups, have them list at least three ways they can make lowfat choices.

Group Activity: MyPlate Plan

Have students visit http://www.MyPlate.gov. Click on the "Super Tracker and Other Tools" link, then on "Daily Food Plans," then on "Daily Food Plan." Have students determine their own MyPlate eating plan by entering their individual age, sex, and activity level. Have them print their eating plan.

Extension Activity

Many chain restaurants provide nutrition information for all the foods on their menus. This information is usually available online or at the restaurants. Have students collect this information from the chain restaurants where they eat.

Divide students into groups. Each group will have nutrition information from one restaurant. Have each group prepare a short presentation to the class on smart choices from that restaurant's menu.

Lunchroom Link:

Have students review the lunch menu. Find all the protein choices, including proteins from plant foods. Encourage them to make signs that highlight the lean protein choices to advertise to other students.

Handout for Chapter 4, Lesson 5: Eating Out

Where's The Fat?

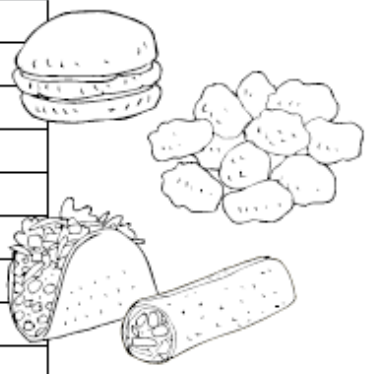
Name: _____

MyPyramid FOR KIDS

Where's the Fat?

Popular Fast Foods

Food	Total Fat (grams)
Hamburger	9
Quarter-pound hamburger	18
Fried fish filet sandwich	18
Crispy fried chicken	23
Chicken nuggets (10 pieces)	24
Beef soft taco without cheese	8
Beef taco, regular style, without cheese	7
Bean burrito, no cheese	8
Taco salad with ground beef, no cheese	39



1. How many grams of total fat are in a quarter-pound hamburger? _____

2. How many grams of total fat are in a regular hamburger? _____

3. Circle the food with less fat:

Taco salad	OR	Beef soft taco
Bean burrito	OR	Fried fish filet sandwich
Crispy fried chicken	OR	Hamburger

4. List three ways you can make lowfat choices when you're eating out.

1. _____
2. _____
3. _____

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Where is the Fat? Answer Key

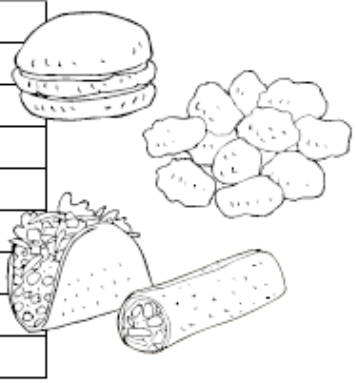
Name:

MyPyramid FOR KIDS

Where's the Fat? Answer Key

Popular Fast Foods

Food	Total Fat (grams)
Hamburger	9
Quarter-pound hamburger	18
Fried fish filet sandwich	18
Crispy fried chicken	23
Chicken nuggets (10 pieces)	24
Beef soft taco without cheese	8
Beef taco, regular style, without cheese	7
Bean burrito, no cheese	8
Taco salad with ground beef, no cheese	39



1. How many grams of total fat are in a quarter-pound hamburger? **Answer: 18 grams**

2. How many grams of total fat are in a regular hamburger? **Answer: 9 grams**

3. Circle the food with less fat:

Taco salad OR **(Beef soft taco)**

(Bean burrito) OR Fried fish filet sandwich

Crispy fried chicken OR **(Hamburger)**

4. List three ways you can make lowfat choices when you're eating out.

1. **Choose grilled *(not fried)***
2. **Choose the smaller size *(hamburger versus the quarter-pound hamburger)***
3. **Look at nutrition information provided by the restaurant before making your selection.**

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Handout for Chapter 4, Lesson 6: New and Unusual Foods: Why Not Give It A Try?

New Foods Taste Test

Rating Scale:

1 – Yummy
2 – Pretty Good
3 – Okay
4 – Not my favorite

Your Name: _____

Food To Be Tasted	Rating	What I Liked Or Didn't Like About This Food.

Handout for Chapter 4, Lesson 6: New and Unusual Foods

Recipe: Insect Infested Log

Recipe

Insect Infested Log[11]

UTENSILS

Cutting board
Cutting knife
Butter knife
Dry measuring cups
Measuring spoons
4 snack-size plates

INGREDIENTS

4 (8-inch) celery stalks
1/2 cup creamy peanut butter
2 tablespoons currants
2 tablespoons apricot bits or 6 dried apricots sliced into mini "worm-like" pieces

DIRECTIONS

Sit the celery stalks down on a cutting board. Saw each celery stalk in half with a cutting knife to make eight (4-inch) pieces. With a butter knife, spread the peanut butter from its measuring cup in each piece of celery. These are your "logs." On top of the peanut butter, sprinkle the currants ("baby ants") and apricots ("worms" or "larvae") straight from their measuring spoon. Lay two Insect-Infested Logs onto each plate. Take a bite—if you're not too grossed out! They're weirdly wonderful!

[11] Recipe is from Kidnetic.com

Handout for Chapter 4, Lesson 6: New and Unusual Foods

Recipe: Savory School Paste

Recipe

Savory School Paste[12]

UTENSILS

Can opener
Mesh strainer
Blender
Measuring spoons
Cutting board
Cutting knife
Juicer or reamer* and small bowl
Liquid measuring cup
Medium-size bowl

INGREDIENTS FOR

1 (15 to 16-ounce) can white cannellini or navy beans, drained
1 small clove garlic, papery skin removed
1 tablespoon extra virgin olive oil
1/4 teaspoon salt
Juice of 1/2 lemon
1/4 cup cold water
3 cups pre-cut veggies, such as broccoli flowerets and baby carrots

DIRECTIONS

Open the can of beans with a can opener. Over the sink, pour the beans into a mesh strainer. Rinse the beans with cold water. Drain well. Toss the well-drained beans into a blender container along with the small clove of garlic. Dribble in the olive oil from a measuring spoon and sprinkle in the salt, too. Slice a lemon in half on a cutting board with a cutting knife. Juice ½ lemon with a juicer or reamer* into a small bowl. (Wrap up the other half and put it in the fridge for another use.) Pour the lemon juice into the blender container. Then, trickle in the ¼ cup water from a liquid measuring cup. (If you like really thick paste, don't use all the water!) Make sure the blender lid is on tight! Then, blend on low speed for 15 seconds, or until all ingredients are combined. Pour your tasty paste into a medium-size bowl for pasting together veggies!

* TIP: A reamer is a kitchen tool used to get juice out of citrus fruits like lemons, limes and oranges. If you don't have a juicer or a reamer, use your hands to squeeze the lemon half really hard so the juice goes into the bowl.

[12] Recipe is from Kidnetic.com

Handout for Chapter 4, Lesson 6: New and Unusual Foods

Recipe: Garbage Pasta Salad

Recipe

Garbage Pasta Salad[13]

UTENSILS

Cutting board
Cutting knife

INGREDIENTS

1/2 (16-ounce) box rotini or radiatore pasta
6 ounces turkey salami, lean beef salami or baked ham, cubed or cut into strips
6 ounces part-skim mozzarella or provolone cheese, cubed
1 small zucchini, halved lengthwise, thinly sliced
1 cup pea pods
1 cup chopped broccoli flowerets
1/2 large sweet red pepper, chopped (1 cup)
1/2 small red onion, thinly sliced
1/4 cup finely chopped fresh parsley or basil, or mixture of both
1/2 cup light Italian or vinaigrette dressing
2 tablespoon grated Parmesan cheese
Black pepper, to taste

DIRECTIONS

Boil the pasta according to package directions; rinse in cold water and drain well. Pour the drained, cool pasta into a large bowl. Toss on top of the pasta the salami, cheese, zucchini, pea pods, broccoli, red pepper, onion, parsley or basil and dressing. Stir it well with a large spoon. Serve with the Parmesan cheese sprinkled on top and black pepper, to taste. Enjoy right away or cover and chill overnight. If taking to lunch, pack in a sealed plastic container. Make sure you have a fork to enjoy it with!

[13] Recipe is from Kidnetic.com

Handout for Chapter 4, Lesson 6: New and Unusual Foods

Recipe: Crazy Mix Veggie Burgers

Recipe

Crazy Mix Veggie Burgers[14]

UTENSILS

Cutting board
Cutting knife
Dry measuring cups
Measuring spoons (if needed)
Cheese shredder (if needed)
Medium-size mixing bowl
Large spoon
Toaster (or other kitchen utensils based on veggie burger package directions)

INGREDIENTS

4 large tomato slices
4 whole-wheat hamburger buns
4 frozen veggie burgers, prepared according to package directions
Choose 5 of these 10 "Crazy Mix" ingredients:

- 1/2 cup shredded part-skim mozzarella cheese
- 1/2 cup shredded Cheddar cheese
- 1 cup finely chopped fresh spinach
- 1 cup finely chopped or shredded lettuce
- 3/4 cup thinly sliced red onion
- 1/2 cup shredded carrot
- 1/4 cup sliced pickles
- 1/4 cup ketchup
- 1/4 cup light mayonnaise
- 2 tablespoons mustard

DIRECTIONS

Pick 5 of the 10 "Crazy Mix" ingredients that you like best. Prepare each of the 5 ingredients and measure them out. Dump all the measured ingredients into a medium-size mixing bowl. Slop them all together with a large spoon. Set the bowl aside while preparing the rest of the Crazy Mix Veggie Burger. On the cutting board, slice a large tomato into four 1/2-inch-thick slices. Place each tomato slice on the bottom halves of the 4 buns. Cook the veggie burgers according to the package directions. Some veggie burgers can be prepared simply in the toaster. When the package suggests you can use a toaster, it usually takes just 5 to 6 minutes to toast each frozen veggie burger patty. Place each cooked veggie burger on top of each of the four slices of tomatoes. Then, plop the "Crazy Mix" evenly onto each of the veggie burgers. Top with the bun tops! Go crazy—take a big bite!

[14] Recipe is from Kidnetic.com

Handout for Chapter 4, Lesson 7: It's All About Size

Portion Control: Sizing It Up!

1/2 cup fruit, vegetable, cooked cereal, pasta or rice = a small fist

3 ounces cooked meat, poultry or fish = a deck of cards

1 tortilla = a small (7 inch) plate

1 small muffin = a large egg

1 teaspoon margarine or butter = a thumb tip

2 tablespoons peanut butter = a golf ball

1 small baked potato = a computer mouse

1 pancake or waffle = a 4 inch CD

1 medium apple or orange = a baseball

4 small cookies (like vanilla wafers) = four silver dollar coins

1½ ounces of cheese = 6 dice

Handout for Chapter 4, Lesson 7: It's All About Size

Serving Size Card

SERVING SIZE CARD:

Cut out and fold on the dotted line. Laminate for longtime use.

1 Serving Looks Like . . .

GRAIN PRODUCTS

1 cup of cereal flakes = fist

1 pancake = compact disc 

½ cup of cooked rice, pasta, or potato = ½ baseball 

1 slice of bread = cassette tape

1 piece of cornbread = bar of soap 

1 Serving Looks Like . . .

VEGETABLES AND FRUIT

1 cup of salad greens = baseball 

1 baked potato = fist

1 med. fruit = baseball

½ cup of fresh fruit = ½ baseball 

¼ cup of raisins = large egg

1 Serving Looks Like . . .

DAIRY AND CHEESE

1½ oz. cheese = 4 stacked dice or 2 cheese slices

½ cup of ice cream = ½ baseball 

FATS

1 tsp. margarine or spreads = 1 dice

1 Serving Looks Like . . .

MEAT AND ALTERNATIVES

3 oz. meat, fish, and poultry = deck of cards 

3 oz. grilled/baked fish = checkbook 

2 Tbsp. peanut butter = ping pong ball

Handout for Chapter 4, Lesson 7: It's All About Size

A Measured Serving

Record your measurements on the chart below.

Food Or Beverage To Be Measured	Amount You Served Yourself	One Serving According To The Label

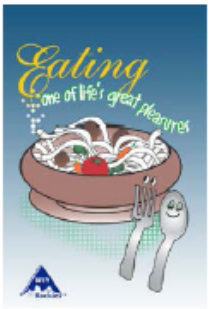
- How do your serving sizes measure up to the recommended serving sizes on the label?
- On the label how many calories for one serving? _____
- You do the math! How many calories for the amount you served yourself? _____
- What can you do to remind yourself of appropriate portions?

Handout for Chapter 4, Lesson 7: It's All About Size

Portion Scavenger Hunt - Activity Instructions part 1

WIN Kids Fun Days

Portion Scavenger Hunt



Portion Size Activity

Objectives:

1. Examine large or super-sized portions.
2. Explore the sugar and/or fat quantities found in these portions.

Age:

10 years and older.

Length:

Approximately 30 to 60 minutes. The length depends on if samples are purchased ahead or if the group walks around town to find them. If a convenience store and fast food restaurant are not within walking distance, items need to be purchased ahead.

Supplies and Materials:

1. Samples of outrageous portions sold as individual items. These can be purchased ahead of time or purchased by each group after walking to the store or restaurant (need cash on hand). The following are suggested:

* from a fast food restaurant –
  - a small and super-sized portion of French Fries
* from a convenience store –
  - bag of chips
  - monster-sized cookie
  - huge packaged muffin
  - mega-sized soft-drink container, full with no ice (64 ounces)
  - large candy bar
  - microwave popcorn bag (pop before leaving store) or large bag already popped

2. Task sheets.

3. Six 12-ounce paper cups to be used with the soft drinks.

4. Two boxes of 4-gram sugar cubes for soft drink, candy bar, cookie, and muffin.

5. Shortening, measuring spoons, and clear sandwich-sized plastic bags for French Fries, potato chips, popcorn, candy bar, cookie, and muffin. **Helpful hint:** have groups measure the shortening into plastic bags to reduce clean up. The bag can be used to remove the shortening from the measuring spoon.

6. One-cup measuring cup for popcorn.

7. A supply of paper plates.

Handout for Chapter 4, Lesson 7: It's All About Size

Portion Scavenger Hunt - Activity Instructions part 2

Special Considerations:

Wheelchair-Bound Participants: If the group is walking, check ahead to be sure the store and restaurant are wheelchair accessible. Ask person if they would like assistance or would prefer to wheel themselves.

Reading and Math Assistance: Assign one adult or an older teen to help each group complete the tasks.

Activity Directions:

1. Divide participants into groups of 3 or 4. Distribute the task sheets and assign one of the seven items to find and analyze. If possible, assign one adult or an older teen to work with each group.

2. Instruct each group to find the item on their sheet. If within walking distance, groups can walk to the convenience store and fast food restaurant. Ask an adult to walk with each group and handle the cash needed to purchase the items. If items are purchased ahead, have them scattered around the area for the groups to find.

3. Have a supply table for groups to pick up paper plates, cups, bags, etc.

4. Allow time for each group to complete the tasks on their sheets.

5. Ask each group to share their findings with everyone else. Ask what was most interesting and/or surprising thing they observed.

Take Home Tidbit

Take home slip says the following:

"Ask me what I learned about huge servings in our portion scavenger hunt during the WIN Kids Fun Day."

Source: Pelican, Suzy. *How Big is BIG?!* Portion Size Education Kit. University of Wyoming Cooperative Extension Service. 2002.

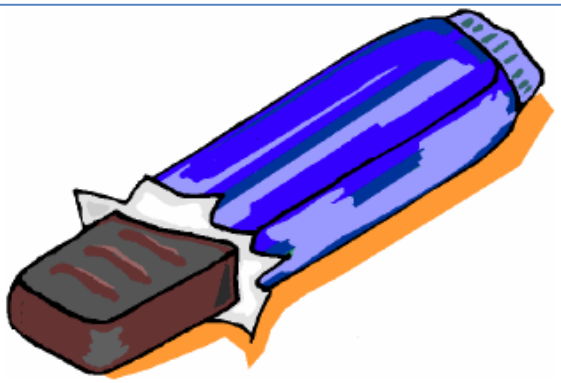
WIN Kids Fun Days • Wellness IN the Rockies
Dept 3354, 1000 E. University Ave • University of Wyoming • Laramie, WY 82071

Wellness IN the Rockies is a community-based research, intervention, and outreach project to improve the health of residents in Idaho, Montana and Wyoming. Supported by award 0004499 through IFAFS (Initiative for Future Agriculture and Food Systems) Competitive Grants Program/USDA. www.uwyo.edu/wintherockies 1011

Handout for Chapter 4, Lesson 7: It's All About Size

Portion Scavenger Hunt Task Sheets - Candy Bar

Your task is to find:



A large candy bar from a convenience store.

Now that you've found your item, do the following:

1. Read the label on the candy bar wrapper to see how many servings are in the package.
   Number of servings _____

2. Divide the candy bar into the number of servings listed. Place each chunk onto a paper plate.

3. Read the label and find grams of fat for each serving
   Grams of fat in each serving _____

   Multiply this by the number of servings you wrote down in #1 for the total fat in the whole candy bar _____

4. Using this chart, measure the fat in the serving with shortening and measuring spoons. Measure into a clear plastic bag using the bag to remove the shortening from the spoon.
   12 grams of fat = 1 Tablespoon of shortening
   4 grams of fat = 1 teaspoon of shortening
   2 grams of fat = ½ teaspoon of shortening
   1 gram of fat = ¼ teaspoon of shortening

Example: 13 grams of fat would be 1 Tablespoon and ¼ teaspoon of shortening.

5. Read the label and find the grams of sugar for each serving.
   Grams of sugar for each serving_____
   Multiply this by the number of servings you wrote down in #1 for the total sugar in the whole candy bar _____

6. Count the number of sugar cubes in the whole candy bar. One sugar cube is 4 grams so divide your total grams of sugar by 4.

Example: 15 grams of sugar is 15 ÷ 4 = 3.75, so you would round up and count 4 sugar cubes.

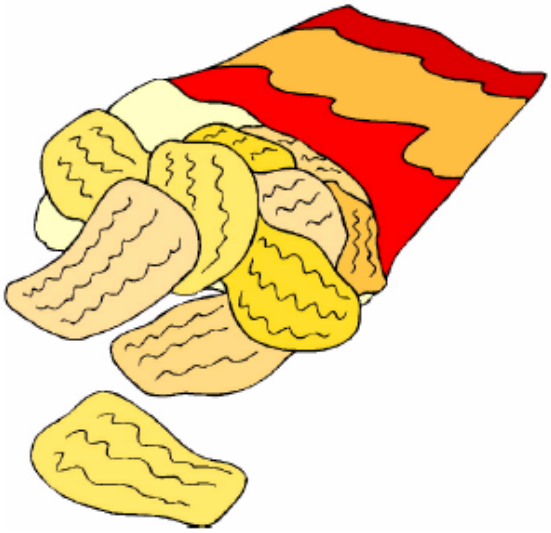
Share what you discovered.

WIN Kids Fun Days: Portion Scavenger Hunt

Portion Scavenger Hunt Task Sheets - Chips

Your task is to find:

A bag of potato chips from a convenience store.



Now that you've found your item, do the following:

1. Read the label on the package to see how many servings are in the bag. Usually one ounce is one serving.
   Number of servings _____

2. Divide the bag into the number of servings listed and place each serving on a paper plate.

3. Read the label and find grams of fat for each serving
   Grams of fat in each serving _____

   Multiply this by the number of servings you wrote down in #1 for the total fat in the whole package _____

4. Using this chart, measure the fat in the serving with shortening and measuring spoons. Measure into a clear plastic bag using the bag to remove the shortening from the spoon.

   12 grams of fat = 1 Tablespoon of shortening
   4 grams of fat = 1 teaspoon of shortening
   2 grams of fat = ½ teaspoon of shortening
   1 gram of fat = ¼ teaspoon of shortening

Example: 13 grams of fat would be 1 Tablespoon and ¼ teaspoon of shortening.

Share what you discovered.

WIN Kids Fun Days: Portion Scavenger Hunt

Handout for Chapter 4, Lesson 7: It's All About Size

Portion Scavenger Hunt Task Sheets - Cookies

Your task is to find:

A monster-sized cookie from a convenience store.

Now that you've found your item, do the following:

1. Read the label on the cookie wrapper to see how many servings are in the package.
   Number of servings _____

2. Divide the cookie into the number of servings listed. Place each piece onto a paper plate.

3. Read the label and find grams of fat for each serving
   Grams of fat in each serving _____

   Multiply this by the number of servings you wrote down in #1 for the total fat in the whole cookie _____

4. Using this chart, measure the fat in the serving with shortening and measuring spoons. Measure into a clear plastic bag using the bag to remove the shortening from the spoon.
   12 grams of fat = 1 Tablespoon of shortening
   4 grams of fat = 1 teaspoon of shortening
   2 grams of fat = ½ teaspoon of shortening
   1 gram of fat = ¼ teaspoon of shortening

Example: 13 grams of fat would be 1 Tablespoon and ¼ teaspoon of shortening.

5. Read the label and find the grams of sugar for each serving.
   Grams of sugar for each serving_____
   Multiply this by the number of servings you wrote down in #1 for the total sugar in the whole cookie _____

6. Count the number of sugar cubes in the whole cookie. One sugar cube is 4 grams so divide your total grams of sugar by 4.

Example: 15 grams of sugar is 15 ÷ 4 = 3.75, so you would round up and count 4 sugar cubes.

Share what you discovered.

WIN Kids Fun Days: Portion Scavenger Hunt

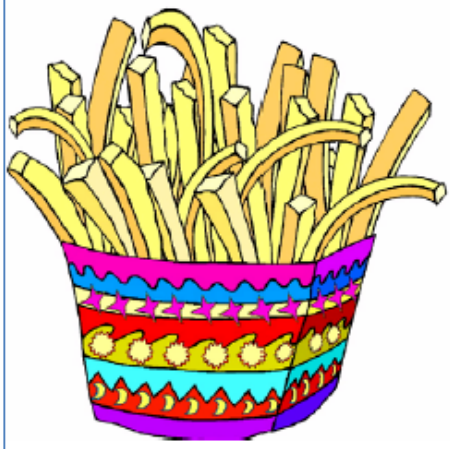
Handout for Chapter 4, Lesson 7: It's All About Size

Portion Scavenger Hunt Task Sheets - Fries

Your task is to find:

1. A small order of French fries from a fast food restaurant.

2. A super-sized or the largest order of French fries from a fast food restaurant.



Now that you've found your items, do the following:

1. Count number of fries in the small portion. Place on a paper plate.

2. Count number of fries in the large portion.

3. Make piles showing how many small portions there are in the super-sized portion. Place each portion on a separate plate.

4. There are 10 grams of fat and about 27 French fries in a small order (using information from a common fast food restaurant.)

Multiply 10 by the number of servings or piles you made in step #3 for the total fat in the super-sized portion _____

5. Using this chart, measure the fat in the large portion with shortening and measuring spoons. Measure into a clear plastic bag using the bag to remove the shortening from the spoon.

12 grams of fat = 1 Tablespoon of shortening
4 grams of fat = 1 teaspoon of shortening
2 grams of fat = ½ teaspoon of shortening
1 gram of fat = ¼ teaspoon of shortening

Example: 13 grams of fat would be 1 Tablespoon and ¼ teaspoon of shortening.

Share what you discovered.

WIN Kids Fun Days: Portion Scavenger Hunt

Portion Scavenger Hunt Task Sheets - Muffins

Your task is to find:

A large muffin from a convenience store.

Now that you've found your item, do the following:

1. Read the label on the muffin wrapper to see how many servings are in the package.
   Number of servings _____

2. Divide the muffin into the number of servings listed. Place each piece onto a paper plate.

3. Read the label and find grams of fat for each serving
   Grams of fat in each serving _____

   Multiply this by the number of servings you wrote down in #1 for the total fat in the whole muffin _____

4. Using this chart, measure the fat in the serving with shortening and measuring spoons. Measure into a clear plastic bag using the bag to remove the shortening from the spoon.
   12 grams of fat = 1 Tablespoon of shortening
   4 grams of fat = 1 teaspoon of shortening
   2 grams of fat = ½ teaspoon of shortening
   1 gram of fat = ¼ teaspoon of shortening

Example: 13 grams of fat would be 1 Tablespoon and ¼ teaspoon of shortening.

5. Read the label and find the grams of sugar for each serving.
   Grams of sugar for each serving_____
   Multiply this by the number of servings you wrote down in #1 for the total sugar in the whole muffin _____

6. Count the number of sugar cubes in the whole muffin. One sugar cube is 4 grams so divide your total grams of sugar by 4.

Example: 15 grams of sugar is 15 ÷ 4 = 3.75, so you would round up and count 4 sugar cubes.

Share what you discovered.

WIN Kids Fun Days: Portion Scavenger Hunt

Portion Scavenger Hunt Task Sheets – Soda Pop

Your task is to find:

A large soft drink container from a convenience store. Try to find a 64-ounce container (remember what size you select.) Fill with a soft drink and no ice.

Now that you've found your item, do the following:

1. One soft drink can is 12-ounces. Fill as many 12 ounce-cups as you can from the mega-sized container you found. This is how many cans of pop are in your one container.

2. Different kinds of soft drinks have different amounts of sugar. For this activity, we will use an estimate of 1 sugar cube for each ounce of your soft drink. (Each sugar cube is 4 grams of sugar.)

3. Count the number of sugar cubes in the whole container full of a soft drink. Place the cubes on a paper plate.

Share what you discovered.

WIN Kids Fun Days: Portion Scavenger Hunt

Handout for Chapter 4, Lesson 7: It's All About Size

Portion Scavenger Hunt Task Sheets - Popcorn

Your task is to find:

A microwave-able package of popcorn (pop before leaving the store). Or a large bag of already popped popcorn.

Now that you've found your item, do the following:

1. Read the label on the microwave bag to see how many servings are in the package.

2. Divide the popcorn into the number of servings listed. Place each pile or serving piece onto a paper plate. For already popped corn, a serving is 3 cups of popped popcorn. Use a measuring cup and put one 3-cup serving on each paper plate.

3. Read the label and find grams of fat for each serving
   Grams of fat in each serving _____

   Multiply this by the number of servings you wrote down in #1 for the total fat in the whole package _____

   For already popped corn, figure 9 grams of fat for each 3-cup serving.

4. Using this chart, measure the fat in the serving with shortening and measuring spoons. Measure into a clear plastic bag using the bag to remove the shortening from the spoon.
   12 grams of fat = 1 Tablespoon of shortening
   4 grams of fat = 1 teaspoon of shortening
   2 grams of fat = ½ teaspoon of shortening
   1 gram of fat = ¼ teaspoon of shortening

Example: 9 grams of fat would be 2 teaspoons plus ¼ teaspoon of shortening.

The amount of fat in popcorn depends on how it is cooked (oil or air popped) and how much butter is added after popping. Popcorn can be a low-fat snack if air-popped with no butter added.

Share what you discovered.

WIN Kids Fun Days: Portion Scavenger Hunt

Handout for Chapter 5, Lesson 1: Walk Your Way To Fitness

Goal Setting Worksheet – School Age Youth

FITNESS GOALS I CAN REACH!

Short Term Goals
(Examples: Watch 30 minutes less TV per day, play outside 30 minutes or more at least 5 days a week).

_____

_____

_____

_____

Medium Term Goals
(Examples: Work up to 60 minutes of physical activity at least 3 days a week).

_____

_____

_____

_____

Long Term Goals
(Examples: Improved health and fitness).

_____

_____

_____

_____

Handout for Chapter 5, Lesson 1: Walk Your Way To Fitness

Goal Setting Worksheet – Middle School and Teen

What are your short-term fitness goals? (Examples: walk one mile two times per week; ride your bicycle to your friend's house two times per week, etc.)

_____

_____

What are your medium-term fitness goals? (Examples: try out for the high school soccer, basketball, or swimming team; lose five pounds, etc.)

_____

_____

What are your long-term fitness goals? (Examples: improved performance in team sports – resulting in more playing time, good health, strong muscles, feel and look good, etc.)

_____

_____

What are some obstacles you might encounter trying to meet these goals? (Examples: lose motivation, no time, injuries, etc.)

_____

_____

List at least three things that will help you to overcome these obstacles. (Examples: support from friends and family, join a sports team, etc.)

_____

_____

Handout for Chapter 5, Lesson 1: Walk Your Way To Fitness

Progressive Walking Marathon Log

Name _____

WEEK	SUN	MON	TUES	WED	THUR	FRI	SAT	RECOM-MENDED WEEKLY MILEAGE	ACCUM-ULATED MILEAGE	INITIALS OF SUPERVISING ADULT
Week 1								1.50		
Week 2								1.50		
Week 3								1.50		
Week 4								1.75		
Week 5								1.75		
Week 6								1.75		
Week 7								2.00		
Week 8								2.00		
Week 9								2.00		
Week 10								2.00		
Week 11								2.00		
Week 12								2.00		
Week 13								2.00		
Week 14								2.45		

NOTE: Every 30 minutes of organized sports practice (e.g. soccer, basketball) during which registrants are actively running, can count as one mile.

I have successfully walked/run a marathon!

Signature of Participant (or Supervising Adult if under age 18) _____

Date _____

Appendix B Resource List

This curriculum contains references to teaching resources that are listed below. Neither the Army, the authors, nor the 4-H National Headquarters, endorse these products or the vendors thereof.

#	**Resource** In most cases, the products listed here are available from multiple sources.	**Possible Sources** The links shown below are just one example of where the resource may be found, and are not meant to be an endorsement or promotion of the site or the vendor.
1.	Laminated Activity Pyramid	http://www.humankinetics.com/physicaleducation
2.	MyPlate Poster	https://mdc.itap.purdue.edu/
3.	Black light	http://www.brevis.com/
4.	GlitterBug lotion	http://www.brevis.com/
5.	Buddy Bear's Handwashing Troubles	http://www.brevis.com/
6.	Heart Rate Chart	http://shop.algra.com/osb/showitem.cfm?Category=0 (**Important**: Make sure you get one that has numbers for children; many do not)
7.	Fat and muscle models	http://www.enasco.com/ The lesson calls for 5 lb models.
8.	Dairy Council Food Model Pictures	http://www.oregondairycouncil.org
9.	Food models	http://www.enasco.com/nutrition/
10.	Streamers (1 package of 5 per kit)	http://www.enasco.com/
11.	Basic Yoga Workout for Dummies DVD	http://www.yogaaccessories.com/
12.	*Everyone is Different, So What is Normal?* (poster)	http://www.oregondairycouncil.org
13.	Pedometers	Various sources
14.	What is a Whole Grain?	http://www.wholegrainscouncil.org/files/WhatIsAWholeGrain_0.pdf
15.	Grab Quick and Easy Snacks	http://teamnutrition.usda.gov/Resources/EatSmart/grabeasysnacks.pdf

#	**Resource** In most cases, the products listed here are available from multiple sources.	**Possible Sources** The links shown below are just one example of where the resource may be found, and are not meant to be an endorsement or promotion of the site or the vendor.
16.	Pack Your Snacks & Go	http://teamnutrition.usda.gov/Resources/EatSmart/pack_snacks_sheet.pdf
17.	Grain bags	Various health food stores
18.	Wheat stalk	Various craft stores
19.	Mind Over Matter: The Brain's Response to Steroids	http://teens.drugabuse.gov/mom/mom_ster1.php
20.	Native American music CD "Gathering of Nations Pow-Wow 1999", or other drum groups	Various music stores, Amazon.com
21.	Tips for Teens	http://store.samhsa.gov/home

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