

Unit 1

Healthy Eating Habits

Practical Problem:

How do I develop eating patterns that will promote good health now and for the future?

Missouri Family and Consumer Sciences Competencies:

- (C-1) Propose eating patterns that promote health.
- (C-2) Examine special nutritional needs (e.g., sports nutrition, modified diets, food supplements).
- (C-3) Examine changes in food and nutrient needs across the life span.

Enabling Objectives for Competency Mastery:

1. Recommend diet planning principles for good health.
2. Apply the Dietary Guidelines for Americans to overall health habits.
3. Describe characteristics of individuals who may have special nutritional needs.
4. Propose meal plans for individuals with special nutritional needs.
5. Compare nutritional needs of children, adolescents, adults, pregnant women, and the elderly.

Teacher Background Information

Rationale

The nutrition and lifestyle habits that students develop now will influence their health and wellness in later years. Americans spend billions of dollars annually to lose weight, get in shape, or purchase supplements to improve their overall health and physical fitness. Many of these practices are not healthy and can cause long-term health consequences. Poor habits, lack of accurate information, overwhelming misinformation and peer pressure cause many adolescents to jeopardize their health. Accurate information about nutrition and good decision-making skills will help teens improve their health now and for the future.

Background

Good health habits contribute to wellness throughout a person's life. Nutritional needs begin even before birth and continue throughout the life cycle. In Missouri today there are nearly twice as many overweight children and almost three times as many overweight adolescents as there were in 1980 (roughly one generation ago). Missouri ranks higher than the national average for overweight youth.

A 2003 survey by the American Dietetic Association Foundation reports that parents outrank all others as children's role models for health habits. Parents outranked sports celebrities and actors by all groups surveyed. Children ages 8-12 reported their top role

model was their mother (23%) or father (17.4%). Teens age 13 to 17 said their mother was most influential (13.8%) and no one (13.4%). The survey shows that the influence of any role model does decrease as the children get older.¹

While parents are very important in helping children develop healthy eating habits, schools play an important role as well. The Missouri Coordinated School Health Coalition developed recommendations to help schools, families and communities work together in many ways such as:

- Developing policy and program guidelines for schools.
- Strengthening physical activity requirements, standards and programs in schools.
- Implementing nutrition policies and education programs.
- Fostering school and community partnerships that promote regular physical activity.
- Engaging students, school faculty, families and communities in promoting healthy eating and regular physical activity.
- Increasing awareness of the problem and of solutions.

The full report by the Missouri Coordinated School Health Coalition is available online at: <http://dese.mo.gov/divimprove/curriculum/hp/HealthyWeight.pdf>

Information Does Not Change Behavior

Several independent reports state that providing only factual information about health-related topics does not influence students to develop or change their behavior. It is essential to include the skills for weight management and behavior change in addition to the nutrition knowledge. Programs that involve students in peer education have also shown positive outcomes. Research indicates that the best predictor of future behaviors is the intention to engage in the behavior (this relates to goal-setting).

Nutrition knowledge, eating patterns, and physical activity levels are all essential to overall health and long-term wellness. Risk factors related to obesity include: diabetes, high blood pressure, high cholesterol and triglycerides, arthritis, gall bladder disease, some cancers, and even lung problems. In efforts to help many consumers “lose more weight faster,” a variety of fad diets have received a great deal of media attention. It can be overwhelming to sort out the facts from the promises, and to determine the long-term health risks associated with many of these “proven successful diets.” The American Dietetic Association recommends *Variety*, *Balance* and *Moderation* in food choices. These guidelines are generally not a part of a fad diet.

Important lifestyle factors also play a large role in maintaining good health. Positive health habits include:

- 7 to 8 hours of sleep each night
- healthy eating habits
- maintaining a healthy weight (yo-yo dieting can be as harmful as being overweight)
- regular physical exercise
- carefully selecting and using equipment to avoid risk of injury

- performing self-examinations frequently
- 6 to 8 glasses of water each day (approx 64 oz)

Guidelines for Healthy Eating

- Aiming for regular meals and snacks
- Hitting most of the major food groups each day to meet your needs for growth and health
- Balancing nutrition-rich foods with moderate amounts of other foods like sweets or fast foods
- Eating when hungry and stopping when full
- Learning about nutrition, but keeping your food as just one important part of your life

Weight Helps Determine Health

Good health begins with a healthy weight. Body Mass Index (BMI) is one “tool” for comparing body weight relative to height. The greater your weight compared to your height, the greater your risk for weight-related health problems. BMI does not measure body fat; however individuals with a higher BMI tend to have higher percentages of body fat. A BMI between 18.5 and 24.9 is considered optimal.

Health professionals advise those who are overweight to lose weight gradually. Approximately two pounds per week in weight loss is maximum recommended. Sometimes, people with serious health problems associated with obesity may have legitimate reasons for losing weight rapidly. If so, a physician's supervision is required. A person's weight is the result of several factors:

- how much and what kinds of food you eat
- whether your lifestyle includes regular physical activity
- whether you use food to respond to stress and other situations in your life
- your physiologic and genetic make-up
- your age and health status

Successful weight loss and weight management should address all of these factors. Products and programs that promise quick and easy results, or that promise permanent results without permanent changes in lifestyle are not based on healthful practices.

Inches, Pounds, and Calories

Inches measure height; pounds measure weight; and calories measure energy. One calorie is the amount of energy needed to raise the temperature of 1 gram of water by 1 degree Celsius. In food, calories are found in three nutrients: carbohydrates, proteins, and fats. During digestion the nutrients are taken from the foods and absorbed into the bloodstream. The nutrients are then converted into glucose. The food energy held in the glucose is delivered to every cell in the body. Energy may be burned immediately to

power activities such as your heartbeat, blinks of your eye, sit-ups, or swimming. Energy not needed immediately is stored in fat in case it is needed later.

Calories are available in most foods. The amount of calories will vary widely among foods. The calories are locked in the nutrients carbohydrates, proteins, and fats. Calories are also provided by alcohol, however alcohol contains no nutrients. Fueling the body with alcohol actually starves the body of the nutrients it needs to maintain health.

Source of Energy	Calories Per Gram
Fats	9
Alcohol	7
Carbohydrates	4
Proteins	4

Source: *American Dietetic Association Complete Food and Nutrition Guide*, 2nd ed. 2002, page 25.

Special Nutritional Needs

Throughout a person's life their body will always need the same nutrients. However, the amount of the nutrients will change over time. Some groups of people have special nutritional needs that are different from the general population. A few examples are pregnant women, children, older adults, and athletes.

The *Dietary Guidelines for Americans, 2005* may not always apply to people who need special diets because of diseases or conditions that affect normal dietary needs. By making minor changes to regular recipes, many people who have special dietary needs can eat the same things as other members of the family. Special needs might include a lower sodium diet, a lower fat diet, a lower cholesterol diet, or food allergies.

Pregnant Women

A pregnant woman needs more nutrients to help her baby grow and get a healthy start in life. If the mother is eating a well-balanced diet before becoming pregnant, she will only need to make a few dietary changes. According to the American College of Obstetricians and Gynecologists (ACOG), pregnant women should increase their usual servings of a variety of foods from the four basic food groups to include the following:

- Four or more servings of fruits and vegetables for vitamins and minerals
- Four or more servings of whole-grain or enriched bread and cereal for energy
- Four or more servings of milk and milk products for calcium
- Three or more servings of meat, poultry, fish, eggs, nuts, dried beans and peas for protein

Most physicians agree that the Recommended Daily Allowances (RDAs), except those for iron, can be obtained through a proper diet. Pregnant and lactating adult women require an additional 40% of calcium a day (1200-1500 mg per day). Almost all of the extra calcium goes into the baby's developing bones. To get this extra calcium, 3 extra servings (3 cups) of milk or dairy products are needed. The mother should consume 2,000 to 8,000 milligrams of sodium a day during pregnancy. There are 2,325 milligrams

of sodium in one teaspoon of salt, and because salt is in most foods, the increased need for it during pregnancy is not too difficult to achieve. Sodium helps to regulate the water in the body.

Pregnant women need plenty of fluids, especially water. A woman's blood volume increases dramatically during pregnancy. Drinking at least eight glasses of water a day can help prevent common problems such as dehydration and constipation. Pregnancy doubles a woman's need for folate (folic acid or folacin). Folic acid has been shown to be important in preventing neural tube defects, such as spina bifida and anencephaly and is essential to the formation of red blood cells. Folic acid can be found in many foods, including kidney beans, leafy green vegetables, peas, and liver. Women in their childbearing years should consume plenty of these foods. In fact, folate is so important to the health of women and their babies that the Food and Drug Administration (FDA) recently required the addition of folic acid to prepackaged bread and cereals.

Infants and Children

For the first few months babies need only mother's milk or formula. Mother's milk is rich with nutrients and antibodies an infant needs. Infant formula is fortified with essential nutrients. Most doctors recommend using a formula enriched with iron. MyPyramid will help a breastfeeding mother be sure she is meeting her nutritional needs.

At four to six months babies are able to eat infant cereals and strained fruits and vegetables. Around seven to nine months babies can digest strained meat and poultry, unsweetened juice, and teething crackers. Chopped foods that are soft, unsweetened dry cereal, cooked pasta such as macaroni can be served to infants when they are about 10 to 12 months old.

After the first year toddlers will begin to eat many of the foods the family eats. By introducing new foods to the toddler one at a time, the parent can determine if the child may have a food allergy. Since a toddler cannot eat a lot of food at one time, they should have two to three snacks throughout the day. Refer to MyPyramid at www.MyPyramid.gov for needs of children at specific ages.

Calcium, iron and fiber are especially important for children. Calcium is the major mineral that strengthens bones. Bone calcium begins to decrease in young adulthood and progressive loss of bone calcium occurs throughout life, particularly in women. The school-age and teen years are the time to prevent the bone disease osteoporosis because peak bone mass and calcium content of the skeleton is reached during the teen years.

Iron is another essential nutrient in a child's diet. Iron deficiency can lead to fatigue, irritability, headaches, lack of energy, and tingling in the hands and feet. Significant iron deficiency can lead to iron-deficiency anemia. Teen boys need extra iron to support their rapid growth, and teen girls need enough iron to replace what they lose once they begin menstruating. Many teenage girls are at risk for iron deficiency because they often don't eat enough foods containing iron to offset the blood loss. Teens can lose significant amounts of iron through sweating during intense exercise.

Dietary fiber can help in reducing the chances of heart disease and cancer later in life, and fiber helps promote bowel regularity. MyPyramid provides suggestions for fruit and vegetable consumption each day along with whole-grain breads and cereals to ensure

that each child gets enough fiber. Too much fiber in the diet can interfere with the body's absorption of essential vitamins and minerals.

Breakfast is essential for children to maintain overall health and have the energy needed to succeed in school. Breakfast really is the most important meal of the day. Snacks also are important to maintain a steady supply of nutrients throughout the day. However, snacks should be nutrient dense, not foods high in calories and low in nutrients.

Can food cause behavior problems in children? Research indicates that there is no connection between food and behaviors such as hyperactivity or poor impulse control. Hyperactivity, or attention-deficit/hyperactivity disorder (ADHD) is a learning disability. Dietary 'treatments' that some parents insist cure the disorder are more likely related to the 'placebo effect' than to the influence of food.

All children can feel 'hyper' or overly stressed at times. Common causes for children to act out may include:

- Too much caffeine from sodas or chocolate
- The desire for attention
- Lack of sleep or too much excitement
- Too much television
- Lack of exercise
- Chronic hunger

Older Adults

Energy needs often decrease for older adults as a result of lower metabolism and reduced physical activity. Nutrient needs are more likely determined by the individual's medical history and genetics, than by age. Needs are much more individual than for other age groups. Use the MyPyramid calculator at www.MyPyramid.gov to determine needs for adults over 70.

The quality of life for people living to age 85 and older is steadily improving. In the United States the segment of the population that is 85 or older is growing faster than any other age group in our society. Chronic disabilities have decreased and quality of life for this age group has increased in general. There are several factors that challenge older adults to choose a healthy diet such as whether they live alone, some medical conditions, difficulty chewing due to tooth loss, or a loss of taste sensitivity. Other factors include whether the older adult takes multiple medications or abuses alcohol.

Tips for older adults

- Eat breakfast every day.
- Select high-fiber foods like whole grain breads and cereals, beans, vegetables, and fruits.
- Have three servings of low-fat milk, yogurt, or cheese a day. Dairy products are high in calcium and vitamin D and help keep bones strong, or take a calcium and vitamin D supplement.

- Drink plenty of water. Some older adults say they feel less thirsty, but their bodies still need the same amount of water.
- Talk with a health care provider about ways to safely increase physical activity. For example, take short walks throughout the day.
- Get enough sleep.
- Stay connected with family, friends, and community.

Source: Healthy Eating & Physical Activity Across Your Lifespan.

Life expectancy is the average number of years people in a given society live. The life expectancy for white males in the United States is different than the life expectancy for males in the Czech Republic, for example. Life expectancy is influenced by gender, race, genetics, and many lifestyle factors. Advances in medical technology led to almost a 100% increase in life expectancy during the twentieth century.

Life Span is the maximum number of years of life that a member of a species can attain. Human have a life span of about 130 years although very few people have actually attained that age.

Longevity is the duration of one person's life. Scientists who study the aging process have found no diet or nutrient supplement that will increase longevity, though there are many claims to the contrary by the manufacturers of nutritional supplements.

Athletes

The physical demands of athletic training and competition increase the athlete's need for nutrients. Whether competitive or recreational, the body cannot perform at its peak without proper nutrition. Athletes need a diet that provides enough energy in the form of carbohydrates and fats as well as essential protein, vitamins and minerals for the added physical activity. A diet containing 55-60 percent of calories from carbohydrates (10 to 15 percent from sugars and the rest from starches), no more than 30 percent of calories from fat and the remaining (about 10-15 percent) from protein is recommended.

Nutrition and fitness experts recommend eating a variety of foods every day - grains, vegetables, fruits, beans, lean meats, and low fat dairy products. The foundation of the athlete's diet should come from carbohydrates in the form of starches and sugars. Fluids, especially water, are also important to the winning combination.

Dehydration can be a threat to good athletic performance. Heat stroke caused by severe dehydration ranks second among the reported causes of death among high school athletes.

Modified Diets for Health

Special modified diets are recommended for those with, or at risk for, a number of medical conditions such as diabetes, heart disease, hypertension, lactose intolerance. Many people with one of these conditions can eat regular foods by making some modifications to their overall diet.

A heart healthy approach to diet will include consuming a variety of fruits, vegetables, and grains (especially whole grains). To achieve a healthy balance of cholesterol, limit

foods high in saturated fats. Lower the amount of sodium consumed to less than 6 grams per day.

The American Cancer Institute provides information online for diet modifications for those who have been diagnosed with cancer. See the Web Resources section for the URL.

Dietary Supplements

Some have suggested that it would be easier to ensure a healthful diet by relying solely on food supplements such as pills, liquids, or powders that contain purified nutrients in specific amounts. Scientists have been successful in developing diets containing precise chemical compositions for people who are hospitalized and cannot eat ordinary foods. However, healthy people do not need these types of supplements and cannot survive long-term on this form of nutrition. Foods are chemically complex and cannot be fully reproduced in a laboratory.

The human body is designed to digest food using the digestive organs and processes. When the digestive organs such as the stomach and intestines are not used to digest foods they begin to weaken and eventually cannot function fully. The intestine releases hormones during the digestive process, these hormones send messages to the brain that trigger satisfaction.

Nutrition supplements have not been found to be better solutions for health than a balanced diet. Yet consumers spend an estimated \$5 to \$10 million. The Dietary Supplement Health and Education Act (DSHEA) of 1994 requires manufacturers to provide labels on their products to help consumers make informed choices. The FDA does *not regulate* dietary supplements. Unlike foods, food additives and drugs, supplements do not require government approval to be marketed to the consumer. The definition of a dietary supplement is very broad to the point of being almost meaningless. High doses or 'mega' doses of a nutrient are harmful rather than beneficial. An appropriate supplement should provide the nutrients in an amount that is smaller than, or close to, the actual DRI recommended.

More people in the United States suffer from 'overnutrition' and poor lifestyle choices than from nutrient deficiencies. Better decisions about food choices and exercise generally are more effective than a dietary supplement.

Web Resources for Teachers

http://www.health.state.mo.us/DietManual/Diet_manual.pdf

The *Missouri Diet Manual* was first printed in 1958 and is in its ninth revision. The purpose of the manual is to provide clear-cut practical information and guidelines in diet therapy for normal nutrition and modified diets. This manual has been prepared primarily for use by food and nutrition service personnel in Missouri hospitals and nursing homes. It includes information on modifying the diet for a number of special needs.

<http://www.youngwomenshealth.org/healthyeating.html>

Children's Hospital of Boston has created an important new initiative-- the creation of a Center for Young Women's Health-- the first of its kind in the nation.

<http://www.nal.usda.gov/fnic/etext/000008.html>

Federal government Food and Nutrition Information Center website with many links to sites such as “Nutrition throughout the Lifecycle,” or “vegetarianism.”

<http://www.kidshealth.org/>

KidsHealth for Parents sponsored by the Nemours Foundation. KidsHealth is the largest and most visited site on the Web providing doctor-approved health information about children from before birth through adolescence. Provides families with accurate, up-to-date, and jargon-free health information.

<http://www.cancer.gov/cancertopics/eatinghints/page1>

The National Cancer Institute provides extensive information on types of cancer and diet suggestions.

<http://nirc.cas.psu.edu/lifecyc.cfm>

Penn State College of Agricultural Sciences houses the Nutrition Information and Resource Center (NIRC). This website includes links with additional resources for nutrition throughout the life cycle and for modifying recipes for special dietary needs.

References:

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¹Children’s role models for health: Parents outrank all others. August 1, 2003.

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http://win.niddk.nih.gov/publications/young_heart.htm

Missouri Coordinated School Health Coalition. *Promoting Healthy Weight in Missouri’s Children: A Guide for Schools, Families and Communities*. 2003.

http://www.cdc.gov/nchs/data/dvs/nvsr52_09p9.pdf. National Center for Health Statistics. National Vital Statistics Reports, vol. 52, no 9, Nov 7, 2003.

http://www.kidshealth.org/parent/nutrition_fit/nutrition/index.html Nutrients Your Child Needs: Calcium, Iron and Fiber. Updated and reviewed: Kim Rutherford, MD Date reviewed: October 2001

Instructional Strategies

1. **Recommend diet planning principles for good health. (Competencies C-1, C-2, C-3)**
 - a. Use the Buzz Group technique to discuss diet and dieting. Divide into groups of 3-5 students with one leader and one recorder in each group. The leader is to keep the group on task with the discussion and the recorder to summarize the ideas. Use Activity Sheet #1: **Is Everyone On a Diet?** or display the information on an overhead transparency. Work in groups for about 10 minutes, then the recorders from each group will share the ideas from their group with the whole class.
 - b. Access the *Dietary Guidelines For Americans*, 2005, 5th Edition, USDA at: www.health.gov/dietaryguidelines/dga2005/document/. Either print out the full report or view the document online. Create posters to illustrate these guidelines and post them throughout the building for other students to view.

Questions for Discussion/Formative Assessment

- *What are the guidelines for healthy eating?*
- *Who developed these guidelines? What motives might they have for selecting these guidelines?*
- *How often are the guidelines revised or updated?*
- *When will they be reviewed again?*
- *Are there some people who could not follow these guidelines, or could anyone follow these guidelines for good health?*
- *Which guideline is the most difficult for you to follow?*
- *What changes might you make in your eating habits to meet these recommendations?*

- c. Use Fact Sheet #1: **Tips for Healthy Eating** to discuss how habits can affect eating behavior. Rank these tips for yourself. Which tip do you feel will help you the most? List that tip as number 1, etc.
- d. Work individually if there are enough computers available for every student, otherwise divide into groups to explore nutrition facts. Use the Webquest Activity Sheet #2: **Search for the Perfect Food** to examine various food sources that contribute to a balanced diet. Use your nutrition knowledge to select the one food that you believe is the most perfect in terms of nutrient density. Develop an advertisement to “sell” the rest of the class on your idea.
- e. Access one of the online information sources below related to Nutrition Supplements:

National Institutes of Health, Office of Dietary Supplements, Dietary Supplements: Background Information.

<http://ods.od.nih.gov/factsheets/dietarysupplements.asp>

U.S. Food and Drug Administration
<http://www.cfsan.fda.gov/~dms/ds-oview.html>

U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition
<http://www.cfsan.fda.gov/~dms/ds3strfs.html> updated November 4, 2004.

Gateway to Government Food Safety Information
<http://www.foodsafety.gov/~fsg/dietsupp.html>

Review the information about possible health risks, label information, and lack of FDA regulation. Take a poll of students in the class to determine how many believe these foods should be regulated and how many believe the consumer should have the freedom from this type of government regulation. Discuss the implications to the consumer and manufacturer when there are tight regulations and when the regulations are very loose.

2. Apply the Dietary Guidelines for Americans to overall health habits. (Competencies C-1, C-3)

- a. Examine the *Dietary Guidelines For Americans, 2005*. Conduct a school survey to determine how many students are aware of the *Guidelines*. How many know that these *Guidelines* exist? How many students know where to find more information about the *Guidelines*? How many students say they would like to learn more about healthy eating? Report back to class on your survey findings. Compile the survey data for the school newspaper.

Questions for Discussion/Formative Assessment

- *How many of the guidelines are related to foods and nutrition, and how many are related to physical activity?*
- *Which guidelines require the consumer to have information, and which guidelines are based on consumer behavior? (Knowing facts vs. making decisions)*

- b. The following website from the Food and Information Center includes a link to dietary guidelines from around the world:
<http://www.nal.usda.gov/fnic/dga/index.html> There are guidelines for many countries including Canada, Ireland, Germany, Hong Kong, Italy and many more. Assign students to groups of two or three to research one country and compare the guidelines to the United States. Report back to the full class with the comparisons.
- c. The *Dietary Guidelines for Americans* are reviewed every five years to determine if revisions are needed based on recent scientific findings. The current guidelines were published in 2005. The Dietary Guidelines Advisory Committee, a committee of prominent experts in nutrition and health, reviewed the 2000 *Dietary Guidelines* and determined that a revision was appropriate. Develop public service announcements to submit to local media to raise awareness about the Dietary Guidelines in your community. This can

be part of an FCCLA Student Body Project for community awareness. If a new review is underway, monitor the progress of the review committee to determine what revisions, if any, are recommended.

Questions for Discussion/Formative Assessment

- *Why do the Guidelines change?*
- *Are all groups of people such as children, pregnant women, or older adults included in these recommendations?*
- *Do you believe most people follow the Guidelines?*

3. Describe characteristics of individuals who may have special nutritional needs. (C-1, C-2)

- a. Access MyPyramid at www.MyPyramid.gov to calculate needs for various groups such as Young Children, Vegetarians, or for Older Adults. Compare similarities and differences. Create a Venn diagram to illustrate your comparisons.

Questions for Discussion/Formative Assessment

- *Why do these guidelines **not** apply to children younger than 2 years old?*
- *What recommendations would apply for these infants and young children?*

- b. Use the Internet or classroom resources to learn more about vegetarian diets, vegan diet needs, and macrobiotic diets. Complete Activity Sheet #3: **Thinking It Over** in this unit to summarize your thoughts. Internet sources could include the American Dietetic Association at <http://www.eatright.org> or the Vegetarian Resource Group at <http://www.vrg.org>
- c. Use the Guided Reading Activity Sheet #4: **Pregnant Women Have Special Dietary Needs**, to examine the additional nutritional needs of pregnant women compared to women in the same age range who are not pregnant.
- d. Divide into groups of 5 students with the same role to play. Use the Webquest Activity Sheet #5: **Sports Nutrition in the Media** to investigate sports nutrition issues that are relevant for student athletes. Allow time for the groups to share their research. Regroup so that the new groups include one member from each role. Create and videotape a 5-minute television interview that summarizes the information learned about sports nutrition.

4. Propose meal plans for individuals with special nutritional needs. (Competencies C-1, C-2)

- a. Women need about 300 additional calories each day during the second and third trimesters of their pregnancy. Find a reference chart in your textbook or on the Internet that lists the nutritive value of foods. (USDA, Home and

Garden Bulletin Number 72, Nutritive Value of Foods at www.nal.usda.gov/fnic/foodcomp/data/HG72/hg72_2002.pdf is one resource.) Suggest healthful choices of foods to add to a regular balanced meal plan that will total about 300 calories per day for a week. Select a variety of nutrient dense foods.

- b. Children are often selective in the foods they will eat. It can be difficult to ensure that some children eat a variety of foods, especially fruits and vegetables. Create a 7-day menu of healthful snacks that parents can use to 'fill in the gaps' during the day for a child who typically does not eat enough servings of these food groups.
 - c. Breakfast is essential for children to function well in school, grow and develop normally, and have enough energy to get through their day. Yet, many children do not eat breakfast. Develop a menu for one week of breakfast choices that an elementary school child could prepare. Follow the Recommended Dietary Allowances in choosing your foods.
 - d. Divide class into food labs to prepare one of the breakfast menus developed in Instructional Strategy 4(c) above. Adapt cooking and food preparation requirements to the skill level that a child age 7-10 could be expected to perform. For example, if the meal plan calls for a poached egg, students could prepare the poached egg in the microwave rather than using the stove-top. Discuss the nutritional needs and food preparation skill level that is appropriate for a child age 7-10 years.
 - e. Adapt the menu developed in Instructional Strategy 4(c) above for a child who prefers a vegan diet. Explain how your choices fit the vegan requirements.
 - f. Divide into groups to create a typical menu for a special meal such as a birthday or a holiday. Choose one diet modification or draw slips of paper with various modifications listed such as low sodium, low cholesterol, low fat, low sugar, increased fiber, or lactose intolerance. Modify the original menu and identify what ingredients might be substituted, what cooking methods might be altered, or other types of modifications recommended for the menu. This website from Penn State has useful information for modifying recipes: <http://nirc.cas.psu.edu/online.cfm?area=100>
- 5. Compare nutritional needs of children, adolescents, adults, pregnant women, and the elderly. (Competencies C-2, C-3)**
- a. Use the Jigsaw learning strategy to explore the nutritional needs of various groups. Compare facts about each group to understand what needs they all share and what needs are unique. Try to establish at least 5 study groups. One group will focus on each segment such as the special nutritional needs of children, the special nutritional needs of adolescents, etc. You may want to add other study groups to focus on special needs of athletes or vegetarians. If your class is not large enough, use the jigsaw two times with different combinations of students in the groups.

Teacher Note: Jigsaw is a learning strategy that requires students to exchange information. The active process of teaching and learning together can be highly effective. This strategy works well when the material can be segmented or divided into chunks, and the order in which the material is learned does not matter.

Divide the class into study groups of 3-5 students. Assign each study group a segment or chunk to read, discuss, and learn. All students in the original study group should number off. A new study group is now formed with all students whose number is one, another group with all students whose number is two, etc.

All of the new groups will teach each other the one segment of the information that each learned in the original study group. Thus in the first study group the students focus on one chunk of information and in the second study group they teach each other their one chunk so that all students have an opportunity to hear about all of the information.

Here is a diagram showing how the groups would work in a class of 15 students:

6	6	6
v	v	v
n	n	n
4	4	4
m	m	m

Divide into 5 study groups with 3 students in each group to focus on one chunk of information. This allows for 5 chunks of information to be discussed:

6		v		n		4		m	
6	6	v	v	n	n	4	4	m	m

Number each student in the groups above 1, 2, 3. All students with #1 divide into a new group, etc. to teach each other what they learned:

	6		v		n
v	n	6	m	4	6
4	m	n	4	m	v

- b. Create a cafeteria bulletin board featuring nutrition guidelines for groups who may have special nutritional needs. Divide into groups to research and prepare parts of the overall bulletin board. Special populations might include pregnant women, infants and young children, older adults, athletes, people with food allergies, or those who are lactose intolerant.
- c. Invite a local dietitian as a special class speaker. A dietitian for patients in a nursing home might talk about special needs of the elderly. A dietitian or personal trainer may be able to focus on special needs of athletes. A dietitian or physician may talk about special needs of pregnant women and infants.

Another alternative is to invite a panel of professionals to discuss all of these special populations.

Summative Assessments

Paper and Pencil

1. Use Assessment #1: **Menu Scramble** to create one daily meal plan. The meal plan must use the recommendations from MyPyramid. (Competency C-1)
2. Create a brochure for parents of preschoolers. The brochure should include nutrition advice regarding nutrient needs, food groups and serving sizes appropriate for young children. The brochure should include recipes and a meal plan for one full day. (Competencies C-1, C-3)
3. Write a research report describing a medical condition and recommendations for a modified diet. Your report should include a description of the medical condition, how diet relates to the condition, and what types of diet changes would a health professional recommend. Examples for topics might include diabetes, cancer, lactose intolerance, hypertension, or heart disease. (Competency C-2)

Classroom Experiences

1. Work in groups to develop the perfect pizza recipe. Many traditional pizza recipes are high in fat and calories compared to nutrient density. Create a recipe for a pizza that is lower in total fat and yet is nutrient dense. Prepare the pizza in your food lab and share with other groups. Use teacher evaluation and peer assessment to determine the nutritive value and appeal of each pizza recipe. Use Assessment Sheet #2: **Pizza Lab** for teacher evaluation component. (Competency C-1)
2. Invite a panel of professionals from the community to evaluate the videotaped television interviews in Instructional Strategy 3(e). Include one or more personal trainers, dietitians, and coaches. (Competency C-2)
3. Recommend a pasta dish suitable to be served as a main dish for a toddler. This dish should provide at least 40% of the toddler's daily protein requirement. You may search for an existing recipe or develop one of your own. (Competencies C-1, C-3)
4. Research the special nutritional needs of the elderly. Create a poster display for your local senior center to educate senior citizens about their special nutrition needs. Your poster should be informative, attractive, and focus on one important fact regarding nutritional needs of the elderly. Be sure to list specific actions needed and provide reliable sources to contact for additional information on your topic. (Competencies C-1, C-3)
5. Develop an omelet recipe for someone who is trying to reduce cholesterol and sodium intake. (Competencies C-1, C-2)
6. Divide into groups of 5 students. Use Assessment #3: **Making Headline News** to develop a one-minute television news feature related to good nutrition. (Competencies C-1, C-3)

Application to Real Life

1. Help a local Meals on Wheels volunteer make deliveries for one day. Interview the people who receive these meals to learn more about how and why this nonprofit organization benefits people in your community. Organize an FCCLA fund-raising activity in your community to benefit the Meals on Wheels organization. (Competency C-3)
2. Work with student athletes in your school to develop weekly menus for their physical training needs. Take into account when the athletes practice, the types of physical activity they are involved in, individual food likes and dislikes, and develop menus that meet the recommendations of MyPyramid. (Competency C-2)
3. Visit a local pharmacy, health foods store, or Internet online sources to look for various food supplements. Read the labels to determine the type of information the manufacturer claims about the products. Does the manufacturer make: (1) a health claim about the dietary supplement reducing the risk for a disease or illness; (2) a claim regarding the nutrient content; or (3) a structure/function claim about the product. Write down the claims the manufacturer makes on the label, then research the dietary supplement using non-biased sources to determine if those claims can be supported by fact. Write a 2-3 paragraph summary of your findings. (Competency C-2)

Fact Sheet #1**Tips for Healthy Eating****1. Don't skip meals - plan for meals and snacks.**

Believe it or not, 3 meals and 2 snacks are best to maintain both energy levels and healthy weight. You are more likely to overeat or choose nutrition-poor foods when you skip meals and are over-hungry. Eating away from home? Don't leave yourself stranded—take foods with you or know where you can go to buy something healthy and satisfying.

2. Learn about simple, healthy ways to prepare foods.

Think about baking, boiling, grilling, stir-frying, or microwaving as healthy ways to cook foods instead of deep frying your foods. Try dried herbs (basil, oregano, parsley) and spices (lemon pepper, chili powder, and garlic powder) to spice up your food, instead of adding toppings like butter, margarine, or gravy. Try trimming off the skin and fat on your meat: you'll still get plenty of flavor and it's more nutritious and heart-healthy!

3. Sugar is "empty energy" - avoid getting too much.

Sugary drinks are a big source of empty energy. This means that they contain a lot of energy (in the form of calories) that your body may not need and they don't have vitamins, minerals, protein, or even fiber. Try sugar-free sodas, sugar-free drink mixes, and water instead of regular drinks or juice. Even "natural" unsweetened juices contain a lot of energy you may not need. Don't go overboard—2 small glasses a day of regular soda or juice is fine. Lots of sugar is also found in desserts like cakes, cookies and candies. Make a place for these foods once in a while, but don't give up nutrition-rich foods to do it.

4. Pay attention to your eating and your body.

Slow down when you eat. Try to relax and pace yourself so that your meals last at least 20 minutes, since it takes 20 minutes for you to feel full. Listen to your body. Eating when you are hungry and stopping when you are full will help your body to balance its energy needs and stay comfortable. Ask yourself: Am I eating because I'm hungry, or because I'm stressed or bored? Try warm foods (soup, hot cereal, cocoa) and high-fiber foods (whole grains, vegetables, beans) to increase your feeling of comfortable fullness.

5. Stay healthy and happy—avoid "diet thinking."

There are no good foods or bad foods. All foods can be part of healthy eating, in moderation. You do not need to buy fat-free or dietetic foods. Fat-free or dietetic foods are not necessarily lower in calories -they usually have lots of added sugar to replace the fat! YOU are more important than your weight or body size—believe it! And your health and happiness can be hurt by drastic weight loss plans. If you have not yet reached your adult height, too much weight loss could interfere with your growth, even if you are overweight. For younger teens that are overweight but still growing, it may be important to keep your weight steady as you continue to grow, instead of focusing on weight loss. If you feel you are overweight and want to make some changes in your food intake, it's a good idea to contact your health care provider. You may also want to ask your health care provider for a referral to see a nutritionist (a person who has studied nutrition, and knows all about food and healthy ways to lose weight).

Written by Heather Bell, MPH, RD, CHES.

Competencies C-1, C-3

Activity Sheet #1

Team Leader: _____ Recorder _____

Group Members: _____

Is Everyone on a Diet?

Work in groups of 3-5 students to discuss your thoughts about the definition of a diet. Select one person from your group to be the leader and one person to be the recorder. The leader is responsible for keeping the group on task, while the recorder is responsible for writing down the main ideas and responses to the following questions. Once your group finishes its discussion you will share your ideas with the class.

1. What is a diet? Is it something you do or something you eat?
2. Is it true that everyone is 'on a diet?' Explain your answer.
3. What does it mean to "watch what you eat?"
4. How would you describe a good diet?
5. Are there foods that are 'bad' for you? Why?
6. Can a 'good food' be bad for your diet? Explain.
7. How can a person know if their diet is healthy? What are some signs to look for that signal a good diet or a poor diet?
8. What advice would you give a teen about a healthy diet?
9. Who might you contact for more information if you have questions about choosing a healthy diet? Who would be a knowledgeable source?
10. Do you think a person who knows a lot about nutrition has a healthy diet?

Competencies C-1, C-2, C-3



WebQuest Activity Sheet #2

Search for the Perfect Food

Did you know that Americans are rumored to eat 18 acres of pizza on average every day! Now that's a lot of pepperoni! In all its cheesy splendor, pizza might seem like the perfect food – but with all that fat and cholesterol, it's not the healthiest treat around. So what is the perfect food? That's for you to discover.

Your mission: Use the Internet and the websites below to gather information about food sources for good nutrition and overall health. Then make a recommendation for the one "perfect food" – something that is both nutritious and delicious. Then create an advertisement to convince your classmates that your recommendation is indeed the perfect food. Be sure to explain why that food is nutritious, how it contributes to your body's nutritional needs, and why you think it is a good food choice.

Begin your quest using the links below. Feel free to also consult books, magazines, and other library resources as you research information on the "perfect food."

How to Understand the Nutrition Facts Panel on Food Labels

Start here to discover what information you have easily at your fingertips every time you shop for foods.

<http://www.cfsan.fda.gov/~dms/foodlab.html>

http://kidshealth.org/teen/food_fitness/nutrition/food_labels.html

Got Milk?

Learn more about 3-A-Day for better health, and the connection between cows and strong bones.

<http://www.got-milk.com>

I Love Cheese

You may love it, but it is really good for you. What is all the chatter about cheese? Ya gotta try ricotta, nothin's better than cheddar, take home provolone, then there's cottage, cream, and string.

<http://www.ilovecheese.com>

The American Egg Board

Yes it's edible, but what is so incredible about the egg? Is an egg a day really okay? Be prepared to burst into song at this website.

<http://www.aeb.org>

National Chicken Council & US Poultry and Egg Association

Not sure whether the chicken or the egg is the best choice? Try this website for important facts to help you decide.

<http://www.eatchicken.com/>



WebQuest *Activity Sheet #2 Continued*

Pork the Other White Meat

What are the benefits of the other white meat compared to the 'real' white meat? Go whole hog and find out the nutrition facts, food safety tips, and chef's recommendations.

<http://www.otherwhitemeat.com/>

Beef Council and Cattlemen's Association

Beef may be what's for dinner; but should it be? Check out these facts to help you narrow your list of choices for the perfect food.

<http://www.beef.org>

Personal Health Zone

Compare nutrient facts for a variety of meat and poultry sources

http://www.personalhealthzone.com/nutrition/nutrients/meat_poultry/meat_poultry.html

Essential Fruits and Vegetables

Find out if these are the perfect choice. Examine the nutritional content of fruits and vegetables. Dole recommends 5-A-Day, what do you say? Discover how color contributes to health. Try the link for 'parents' to find the most grown-up facts.

<http://www.dole5aday.com>

<http://www.health.state.mo.us/5aday/>

Wheat Foods Council

For a few grains of truth about good nutrition, and the stamina to finish your search for the perfect food see what the Wheat Foods Council has to say about this important staple.

<http://www.wheatfoods.org/>

Adapted and updated from Nutrition: A Quest for the Perfect Food a lesson plan at DiscoverySchool.com

Thinking It Over

The Facts Say ...

List 3 possible health benefits with a vegetarian diet.

- 1.
- 2.
- 3.

List 3 possible health consequences with a vegetarian diet.

- 1.
- 2.
- 3.

List 3 possible health benefits with a diet containing meat.

- 1.
- 2.
- 3.

List 3 possible health consequences with a diet containing meat.

- 1.
- 2.
- 3.

After Thinking It Over, I Say ...

Competencies C-2, C-3
Activity Sheet #4

Name _____

Pregnant Women Have Special Dietary Needs

Access the National Women's Health Information Center website, *4 Woman.Gov*, at:

www.4woman.gov/fag/preg-nutr.htm/ Use the information from this website to find the answers to the following questions.

1. Eating too many foods that are high in fat during pregnancy leads to _____
_____.
2. According to the American Dietetic Association, pregnant women should increase their usual servings of a variety of foods from the following basic food groups _____
_____.
3. The three nutrients needed for a healthy pregnancy include _____
_____.
4. Recent research shows that women who gain more than the recommended amount during pregnancy and who fail to lose this weight within six months after giving birth are at much higher risk of being obese nearly _____ years later.
5. Total weight gained during pregnancy includes _____ to _____ pounds for the weight of the baby. The remaining weight consists of a higher fluid volume, larger breasts, larger uterus, amniotic fluid, and the placenta.
6. During pregnancy when is it safe to drink alcohol? _____.
7. _____ is a group of birth defects caused by drinking alcohol during pregnancy.
8. What do some studies suggest regarding caffeine intake during pregnancy? _____
_____.
9. _____ is a form of diabetes that begins during pregnancy and usually goes away after the birth of the baby.
10. Morning sickness and nausea are common problems for pregnant women. List one suggestion to help reduce nausea. _____

Answer Key

Name _____

Pregnant Women Have Special Dietary Needs

Access the National Women's Health Information Center website, *4 Woman.Gov*, at: www.4woman.gov/fag/preg-nutr.htm/ Use the information from this website to find the answers to the following questions.

1. Eating too many foods that are high in fat during pregnancy leads to *too much weight gain without meeting increased needs for nutrients.*
2. According to the American Dietetic Association, pregnant women should increase their usual servings of a variety of foods from the following basic food groups
fruits and vegetables; whole grains, breads and cereals; dairy products and proteins.
3. The three nutrients needed for a healthy pregnancy include
1. Folic acid 2. Iron 3. Water
4. Recent research shows that women who gain more than the recommended amount during pregnancy and who fail to lose this weight within six months after giving birth are at much higher risk of being obese nearly 10 years later.
5. Total weight gained during pregnancy includes 6 to 8 pounds for the weight of the baby. The remaining weight consists of a higher fluid volume, larger breasts, larger uterus, amniotic fluid, and the placenta.
6. During pregnancy when is it safe to drink alcohol? *It is never safe during pregnancy.*
7. *Fetal Alcohol Syndrome* is a group of birth defects caused by drinking alcohol during pregnancy.
8. What do some studies suggest regarding caffeine intake during pregnancy? *That caffeine can harm the fetus.*
9. *Gestational diabetes* is a form of diabetes that begins during pregnancy and usually goes away after the birth of the baby.
10. Morning sickness and nausea are common problems for pregnant women. List one suggestion to help reduce nausea. *Eat 6-8 smaller meals each day rather than 3 larger ones; avoid being without food for a long period of time; drink fluids between, but not with meals; avoid greasy foods; avoid foods with strong odors; or rest when you are tired.*



WebQuest Activity Sheet #5

Sports Nutrition in the Media

Choose one role below to research facts and issues related to sports nutrition. Use the Internet websites provided for the role you selected to learn more about the topic from that perspective. You may use other sources of information for your research as well.

Once you have gathered all of the information you need, get together with others in your group who have the same role. Compare your notes and develop one fact sheet that summarizes the information your group feels is most important about sports nutrition.

ABC Sports is interviewing athletes, personal trainers, coaches and dietitians for a television feature on sports nutrition. The show will attempt to expose misinformation about sports nutrition and will focus on facts and recent research to help young athletes avoid the dangers that can result from poor eating habits.

Roles:

1. TV Reporter
2. Personal Trainer
3. Athlete
4. Coach
5. Dietitian

tv reporter

Centers for Disease Control

http://www.cdc.gov/nccdphp/dnpa/physical/pdf/exec_summary_2000.pdf

Mayo Clinic

<http://www.mayoclinic.com/invoke.cfm?objectid=2F776F30-10D2-49FC-BA32D2D61AD736E1>

American College of Sports Medicine

<http://www.acsm.org/health+fitness/pdf/fitsociety/fitsc203.pdf>

personal trainer

American Council on Exercise

http://www.acefitness.org/fitfacts/fitfacts_list.cfm#12

The President's Council on Physical Fitness and Sports

http://www.fitness.gov/digest_jun1998.htm

<http://www.fitness.gov/fastfacts.htm#top>

http://www.fitness.gov/Reading_Room/Digests/Digest-March2004.pdf

<http://www.fitness.gov/faq.html>

Colorado State University Extension

<http://www.ext.colostate.edu/pubs/foodnut/09362.pdf>

Cleveland Clinic

<http://www.clevelandclinic.org/health/health-info/docs/1800/1842.asp?index=8184>



WebQuest

Activity Sheet #5 Continued

athlete

Sports and Nutrition: The Winning Connection. University of Illinois Extension
<http://www.urbanext.uiuc.edu/hsnut/>

Nutrition Knowledge: Answers to the Top Ten Questions Nancy Clark, MS, RD *The Physician and Sports Medicine* http://www.physsportsmed.com/issues/1996/10_96/top_ten.htm

Boston Hospital website with healthy eating tips.
<http://www.youngwomenshealth.org/nutrition-sports.html#nutrition>

Nemours Foundation provides information for the student athlete
http://www.kidshealth.org/teen/food_fitness/sports/eatnrun.html

The President's Council on Physical Fitness and Sports
<http://www.fitness.gov/10tips.htm>

coach

National Health Information Center, U.S. Department of Health & Human Services
<http://www.healthfinder.gov/news/newsstory.asp?docid=519985>

Nemours Foundation provides information on the nutritional needs of young athletes
http://kidshealth.org/parent/nutrition_fit/fitness/feed_child_athlete.html

MomsTeam Youth Sport Parenting Information
<http://www.momsteam.com/alpha/features/nutrition/>

Gatorade Sports Science Institute
<http://www.gssiweb.com/>

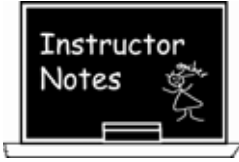
University of Oregon Sports Nutrition
<http://darkwing.uoregon.edu/~soar/nutrition/top10.htm>

dietitian

American Dietetic Association
http://www.eatright.org/Public/Other/index_adap1200.cfm
http://www.eatright.org/Public/index_16503.cfm
http://www.eatright.org/Public/Media/PublicMedia_10758.cfm

Cleveland Clinic
<http://www.clevelandclinic.org/health/health-info/docs/1900/1900.asp?index=8423>

Mayo Clinic
<http://www.mayoclinic.com/findinformation/conditioncenters/centers.cfm?objectid=000BDE1A-6219-1B37-8D7E80C8D77A0000>



WebQuest

Activity Sheet #5 Continued

On with the Show

Divide into new groups with one member from each role. Each group should have one reporter, one personal trainer, one athlete, one coach, and one dietitian. The reporter from each group will interview the other group members for the ABC Sports television show. The show should be about 5-minutes in length. Every member of the group should contribute to the interview. The reporter can decide the theme or focus of the interview questions, but the overall show should focus on teen athletes and nutrition. Video tape each team individually, then allow time for the whole class to watch the shows.

**Competency C-1
Assessment #1**

Name _____

Menu Scramble

Imagine that your kitchen includes all of the foods on the list below in addition to staples such as sugar, flour, salt or margarine. Plan a one-day menu for yourself based on the recommendations from MyPyramid.

Breakfast

Midmorning Snack

Lunch

Afternoon Snack

Dinner

Food List

- 1 cup fresh strawberries
- 1 med. head lettuce
- 8 oz orange juice concentrate
- 1 can refrigerated biscuits
- 8 oz. tomato sauce
- 1 gal. 2% milk
- 1 doz. eggs
- 16 oz. can applesauce
- 16 oz. grated cheddar cheese
- 1 lb. fresh hamburger
- 3 cups dry rice
- 16 oz. dry spaghetti noodles
- 1 loaf bread
- 10 oz. frozen corn
- 1 box graham crackers
- 10 oz. frozen green beans
- 16 oz. jar peanut butter
- 1 pkg. ramen noodles
- 1 can tuna
- 1 box cereal
- 32 oz. bag frozen French fries
- 1 bottle Ranch dressing
- 1 bottle Italian dressing
- 1 lb. apples
- 8 oz. jar grape jelly
- 8 oz. shelled pecans
- 16 box raisins

Competency C-1
Assessment #2

Name _____

The Perfect Pizza Lab Planning Sheet

Period _____ Recipe _____ Date of Lab _____

Recipe Ingredients

Instructions for Preparation

Estimate Preparation Time _____ Amount of Cooking Time _____

List the nutritive values per serving for

total fat _____

cholesterol _____

sodium _____

carbohydrates _____

protein _____

calories _____

serving size _____

The Perfect Pizza Lab Evaluation Sheet

Lab Team Duties:

Chef	Read the recipe; Fill out lab sheet; Main cook for the recipe; Clean Range; Supervise other cleaning jobs.
Cook	Assemble equipment; Assist Chef; Clean the table; Wipe the counters and walls; Put laundry in basket; Check clean-up.
Assistant Cook	Preheat oven; Get supplies for the recipe; Wash dishes; Clean the sink; Wipe off table.
Manager	Dry dishes and put away; Sweep floor; Assist others as needed;

Evaluation

Lab Sheet:	Completed neatly, correctly and turned in on time.	_____
Group Work:	Completed tasks, managed time, followed directions, everyone contributed and cooperated during the lab.	_____
Lab Management:	Equipment used correctly; supplies returned to storage areas, lab area was clean and neat	_____
Product Evaluation:	Recipe was prepared according to the instructions using appropriate lab techniques. The pizza was prepared following the instructions, it was nicely browned and attractive.	_____
Nutritive Values:	The nutritive values were calculated correctly and the overall pizza was lower in fat and more nutrient dense than average frozen types.	_____
Total Points		_____

Competencies C-1, C-3
Assessment #3

Making Headline News

Divide into groups of 5 students to brainstorm answers to the following questions. Develop a one-minute 'segment' for tonight's local news report. Provide facts, information, interview local 'experts' and provide recommendations for actions your community should take.

WHO

- ...needs to know more about eating right? being fit? making healthy choices?
- ...among local young people sets a good example of healthy lifestyle choices?
- ...can help young people make positive choices?

WHAT

- ...are the facts and myths about eating right, being fit, and making healthy choices?
- ...are the "secrets" to making healthy lifestyle choices?
- ...are the costs and consequences of diet and fitness fads?
- ...messages do young people hear about eating right, being fit, and making lifestyle choices?
- ...challenges lead young people to make risky health choices?

WHERE

- ...can young people obtain financial information about eating right, being fit, and making healthy choices?
- ...are young people most likely to make risky health choices?
- ...do young people eat and exercise?

WHEN

- ...do young people's eating and fitness habits start to affect their health? How long do the effects last?
- ...do nutrition and fitness needs change across the life cycle?
- ...is there time to eat right and be fit?
- ...are young people most likely to make risky health choices?

WHY

- ...should young people care about eating right, being fit, and making healthy choices?
- ...do young people's healthy lifestyle choices matter?
- ...are some young people better able than others to deal with stress and resist risky health choices?

Unit 2

Balancing Food and Fitness

Practical Problem:

How do I balance my body's needs for food and fitness to ensure good health throughout my life?

Missouri Family and Consumer Sciences Competencies:

- (C-4) Describe nutrition related health risks.
- (C-5) Assess the effects of eating disorders, and food and diet fads on wellness.
- (C-6) Assess the role of physical activity on wellness.

Enabling Objectives for Competency Mastery:

1. Analyze current lifestyle habits that may increase health risks.
2. Examine the impact of anorexia nervosa, bulimia, binge-eating and overeating on wellness.
3. Compare current fad diets with the recommendations of the Dietary Guidelines for Americans.
4. Evaluate current health status.
5. Determine short- and long-term wellness goals.

Teacher Background Information

Rationale

Choices students make today will influence their overall health in the future. Fad diets, poor nutrition, lack of physical activity, or eating disorders students suffer from today will have a dramatic impact in the years to come. Nutrition research, fitness studies, and medical research all indicate that a balance between food and fitness is essential for a lifetime of good health. Many of the leading causes of death in the United States are directly linked to a sedentary lifestyle.

Nutrition-related Health Risks

There are two common types of diseases that affect human health. They are infectious disease and degenerative disease. Infectious disease includes small pox, influenza, or polio. Many infectious diseases are so debilitating that if they are not fatal, they severely reduce the quality of life and longevity of those afflicted. Modern vaccines and antibiotics have greatly reduced the threat of these types of disease in developed countries. Diet cannot prevent or cure infectious disease, but a healthful diet can improve the body's ability to fight or defend itself against these diseases.

Degenerative diseases find their victims through a combination of three factors: genetics, individual medical history, and lifestyle. A few common examples of degenerative diseases include heart disease, diabetes, cancer, or Alzheimer's.

While the exact cause of an infectious disease is known, the exact cause of many degenerative diseases is not known for certain. Scientists have identified many 'risk factors' that can increase the likelihood a person will develop a certain degenerative disease. For example, cigarette smoking is known to increase a person's chances of developing lung cancer. However, a person who does not smoke may also develop lung cancer.

The National Center for Health Statistics reported in 2001, several of the leading causes of death in the United States. By far the greatest cause of death was heart disease, the second leading cause was cancer, and the third leading cause was stroke. All three are related to diet and physical activity. To further illustrate these statistics, approximately 270 people per 100,000 died in 1999 from heart disease, while fewer than 40 people per 100,000 died in motor vehicle and other accidents.

In addition to the degenerative diseases of heart disease, cancer, and Alzheimer's already mentioned, other common diseases include diabetes, kidney disease, liver disease and cirrhosis, osteoporosis, anemia, and gastrointestinal conditions (i.e., gastric reflux, diverticulosis, irritable bowel syndrome, and ulcer).

The U.S. National Library of Medicine and the National Institutes of Health provide a great deal of information about diet and disease at www.nlm.nih.gov/medlineplus/ency/article/002096.htm#information/

Eating Disorders¹

Eating disorders are unhealthy behaviors that can lead to serious illness and even death. Someone who is suffering from an eating disorder may be ashamed of their actions and well aware that what they are doing is unhealthy, yet may not know how to change their behavior or seek help.

Common types of eating disorders include Anorexia Nervosa, Bulimia Nervosa, and Binge Eating. The causes or underlying issues are different for every eating disordered person. It is often a traumatic event that has happened in their life, possibly years before the eating disorder manifested. These are only some of the possible causes and will vary from person to person.

- Sexual abuse or rape
- Physical violence
- Emotional abuse (e.g., bullying)
- Divorce of parents
- Death of a loved one
- Serious illness in the family
- Peer pressure (e.g., to be thin)
- Surgery/ill health as a child
- Traumatic life-threatening event (e.g., car crash)

Anorexia Nervosa

Anorexia nervosa is an eating disorder in which the sufferer has a fear of weight gain and becoming "fat." However, like all eating disorders, anorexia is merely a symptom that can be observed for a much deeper psychological problem. Eating disorders, particularly anorexia and bulimia, usually affect females but the number of male anorectics is on the increase.

Those suffering from anorexia will often go to extreme lengths to avoid consuming food. One of the most frequent behaviors is lying. For example, saying they have already eaten dinner when really they haven't. Anorectics will also make excuses so they can eat less or even avoid meals altogether. This isn't necessarily the same as lying because they may decide to become vegetarian or vegan, have to fast for religious reasons, or they may simply claim they are on a "diet".

There is no predetermined cause of anorexia and the reasons for its onset will vary from person to person. Often, there are a number of contributory factors, many of which may be from the sufferer's past. One thing which all anorectics have in common is low self-esteem, even if it only manifests itself occasionally. Low self-esteem can quickly lead to a negative image of oneself, especially a distorted body image. Right from the start, anorexia is a way of coping and a way of dealing with problems when a person's life feels out of control.

Control is an important issue for someone who suffers from anorexia. The sufferer may feel as though their life is, or has been, out of control. The extent of the "control factor" varies from person to person.

Sufferers of all types of eating disorders tend to feel like their life is uncontrolled and chaotic, but the method of attempting to regain control varies according to the illness the person is suffering from. Anorectics try to regain control by denying themselves food, whereas bulimics purge their body of food in order to reestablish some control, even if only for a temporary period of time.

Bulimia Nervosa

Bulimia is a condition where the sufferer purges (gets rid of) food they have eaten by self-induced vomiting, over exercising, abusing laxatives or diuretics, or other means. Binges are common with bulimia, although the frequency varies from person to person. Many bulimics do not binge but simply purge ordinary meals or snacks. Like anorexia, bulimia has nothing to do with weight, calories or being "thin" - these are merely symptoms of underlying turmoil and distress.

It is much harder to identify someone who is suffering from bulimia than anorexia because the physical signs are less obvious and can take longer to appear. Also, most bulimics are not underweight and many may be overweight due to bingeing. Bulimia is a constant battle for control. If the control is lost (i.e. by eating or overeating) then it must be regained through vomiting, over exercising, laxative abuse or other methods of purging.

Binge-eating

There is no predetermined cause of binge-eating disorder and the reasons for its onset will vary from person to person. Binge-eating disorder (overeating) is characterized by periods of uncontrollable eating followed by feelings of shame and guilt. These binges are not usually accompanied by purging, although occasional purging may occur. People who suffer from binge-eating disorder are usually overweight and obesity can be a very real problem. Binge-eaters tend to consume food in order to cope with stress.

In a similar way to bulimics, binge-eating disorder sufferers eat excessively in order to cope with life (except they do not usually purge) and then feel very much out of control afterwards. Binge-eating is a psychological disorder and binges/weight gain are merely symptoms of underlying issues. Like bulimics, people with binge-eating disorder do recognize that there is something wrong, they often fear someone will discover their eating behavior. They usually know their behavior is unhealthy, but they don't know how to seek help.

Fad Diets

Many people become frustrated by attempts to lose weight through increasing physical activity and lowering overall caloric intake. They may seek more rapid results by resorting to a variety of fad diets that promise amazing, guaranteed, effortless results.

Fad diets tend to be popular for a short time and then are replaced by the next fad. Many fad diets bring successful weight loss results, however, these results can come with a long-term health consequence. The fad does not help a person establish long-term healthful eating patterns. Most people regain the weight once they stop following the diet plan. The 'seesaw' effect can be even more dangerous to long-term health.

Fad diets may be unhealthy because they often limit certain food groups or strictly limit total calories. Diets that provide less than 800 calories per day could lead to heart problems, which can be fatal. Losing weight at a very rapid rate (more than 3 pounds a week after the first couple weeks) may increase the risk for developing gallstones (clusters of solid material in the gallbladder that can be painful).

Research suggests that losing 1/2 to 2 pounds per week by making healthy food choices, eating moderate portions, and including physical activity every day is the best way to lose weight and keep it off. Healthy eating and physical activity habits may lower the risk for developing type 2 diabetes, heart disease, and high blood pressure.

Web Resources for Teachers

www.consumer.gov/weightloss/bmi.htm

The Partnership for Healthy Weight Management provides a BMI calculator and information about healthy weight management strategies.

<http://www.shapeup.org/>

A non-profit organization dedicated to achieving healthy weight for life. Website includes an interactive body fat calculator.

<http://outreach.missouri.edu/hes/infosheets/diseaseinfo.htm>

The University of Missouri Extension Information Sheets on Cancer, Diabetes, Heart Disease, Hypertention, Osteoporosis, Phytochemicals and Powerpoint slideshows.

<http://www.niddk.nih.gov/>

National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health.

www.nhlbisupport.com/bmi/bmicalc.htm

The National Heart, Lung and Blood Institute includes a Body Mass Index calculator and a menu planner online. The home page includes many informative articles and a weight management tutorial.

www.palereflections.com

Pale Reflections is an online source for facts, statistics, and articles related to eating disorders. Topics include anorexia, bulimia, binge eating, depression, obsessive compulsive disorder and similar topics.

<http://www.4woman.gov/faq/preg-nutr.htm>

4woman.gov is a national women's health information center and is supported by the U.S. Department of Health and Human Services, Office on Women's Health.

<http://www.netwellness.org/>

NetWellness is created and evaluated by the faculty at the University of Cincinnati, The Ohio State University, and Case Western Reserve University. This is a non-profit consumer health web site.

¹<http://www.nlm.nih.gov/medlineplus/eatingdisorders.html>

This website includes a number of links to additional information for those who believe they have an eating disorder and want to find help, for those who know someone suffering from an eating order, and for those who just want to learn more about this illness.

<http://www.brightfutures.org/nutrition/pdf/index.html>

Bright Futures in Practice: Nutrition pdf file from Georgetown University. The mission of Bright Futures is to promote and improve the health and well-being of infants, children, adolescents, families, and communities.

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Instructional Strategies

1. Analyze current lifestyle habits that may increase health risks. (Competencies C-4, C-6)

- a. Use Activity Sheet #1: **Information Search** to explore facts about various health risks. Divide the class into groups to work together on this activity. Hand out the Activity Sheet to each group. Allow time to use the textbook, library or Internet sources to search for the information. Review answers as a class and discuss questions that remain. Fill in with information about the diseases that are not selected by any group.
- b. Hand out copies of the policy statement from the American Academy of Pediatrics and Parents Advocating School Accountability regarding school soft drink sales. This can be found at the following link:
<http://www.aapolicy.aappublications.org/cgi/content/fall/pediatrics;113/1/152>
Work in groups of 3-4 students using Activity Sheet #2: **SEARCH for Solutions** to consider what should be done in your school.

Teacher Note: A great lesson plan is available through the Public Broadcast System (PBS) featuring NOW with Bill Moyers. You will find a full lesson plan with handouts, transparencies, activities to show how much sugar is in soda, and links to background information on this issue. <http://www.pbs.org/now/classroom/diet.html>

- c. Create an FCCLA Student Body project to learn more about healthy eating habits. Student Body is a national FCCLA peer education program that involves youth teaching youth about healthy eating, fitness, and lifestyle choices. The Student Body program focuses on three aspects of wellness: Eat Right; Be Fit; and Make Healthy Choices. Begin with the Eat Right component. Fill out Activity Sheet #3: **Student Body "Eat Right"** to determine each student's interest. Students who marked the same areas of interest form groups to design a project to educate other students about healthy eating habits.

- d. Use the Internet to access the Fast Food Facts website at <http://www.foodfacts.info/> to determine how eating out at fast food restaurants contributes to their overall diet. Divide the class into two groups. Group One will assume they eat out every meal for five days and they can eat anything from any fast food restaurant. Group One should record their 5-day meal plan and use the website to determine how many total calories were consumed each day. Group Two will be limited to no more than 2,200 calories per day. Group Two can only eat at fast food restaurants and they cannot exceed their calorie limit. Group Two will write out their meal plan for five days. Post both meal plans for all students to examine.

Questions for Discussion/Formative Assessment

- *How far over the 2,200 calorie limit was group one for each day?*
- *How much food was group two able to select and still stay within their calorie limit?*
- *Are either one of these approaches realistic for a long-term lifestyle?*
- *Besides total calories, what other nutritional concerns do you see with both meal plans?*
- *What long-range health concerns would you predict for someone who ate only fast food?*
- *Why do you think fast food is so popular in our society?*
- *What are some ideas for overcoming the fast food craze?*

2. Examine the impact of anorexia nervosa, bulimia, binge-eating and overeating on wellness. (Competency C-5)

- a. Estimate how many children and adults are concerned with weight and dieting by using Activity Sheet #4: **Dieting Statistics in America**. Use Fact Sheet #1: **Statistics About Eating Disorders and their Precursors** to compare the data with your estimates.

Questions for Discussion/Formative Assessment

- *Do you think elementary school children should be concerned with dieting?*
- *What role do you think the media plays in influencing people's opinions about weight?*
- *Do you believe there is a 'perfect' size or shape this is best for everyone to try to fit?*
- *Besides dieting, what can a person do to change their size or weight?*
- *How do you feel about these statistics?*
- *What can be done to educate your community about your concerns?*

- b. Divide the class into four Jigsaw learning groups described earlier in this unit. Group One will research and define various eating disorders such as anorexia nervosa, bulimia, binge eating, etc. Group Two will research and recommend ways for a friend to help someone who suffers from an eating disorder. Group Three will research and recommend ways for parents to help a child with an

eating disorder. Group Four will research and recommend ways for an individual who has an eating disorder to recognize the problem and seek help. After each group has prepared, divide into new groups to teach each other about eating disorders. Use textbooks, library materials or online sources for background research.

Teacher Note: One online source is the National Eating Disorders Association (NEDA). NEDA is dedicated to expanding public understanding of eating disorders and promoting access to quality treatment for those affected along with support for their families through education, advocacy and research.

<http://www.nationaleatingdisorders.org/>

Other online resources that may help you with background or teaching materials for teen eating disorders is at

<http://www.lv.psu.edu/jkl1/teens/eating.html>

<http://www.girlpower.gov/AdultsWhoCare/resources/Pubs/teachers.pdf>

- c. Use Activity Sheet #5: **Understanding Eating Disorders Webquest** to explore the illnesses and appropriate actions to help someone with a suspected eating disorder. Divide the class into four groups to complete the Webquest investigation. Assign each group one scenario to explore.

3. Compare current fad diets with the recommendations of the Dietary Guidelines for Americans. (Competency C-5)

- a. Brainstorm a list of popular diet fads in the media now. Create a chart to compare and contrast each diet. Here is an online link that lists several fad diets currently in the media <http://www.ezfastweightloss.com/>

Questions for Discussion/Formative Assessment

- *What do these diets have in common?*
- *What is unique about each diet?*
- *Is there a “celebrity” who endorses the diet or the is the diet based on “scientific research?”*

- b. Review Fact Sheet #2: **Characteristics of Fad Diets** either with individual copies or by using an overhead transparency. Use the Internet or other media to find promotional materials for fad diets currently in the news. Select one fad diet to develop a poster with the fad diet “facts” and the real facts showing the accurate health information relevant to that fad diet.

4. Evaluate current health status. (Competency C-6)

- a. Review Fact Sheet #3: **Body Mass Index and Health**. Calculate your BMI. Make a list of goals to maintain or improve your BMI. An online BMI calculator is available at: <http://www.nhlbisupport.com/bmi/bmicalc.htm>

- b. Use Activity Sheet #6: **Calculate Your Basal Metabolic Rate** or the online calculator at <http://health.discovery.com/tools/calculators/basal/basal.html> to determine the minimum number of calories you need each day.
- c. Contact the Missouri Action for Healthy Kids state team (website contact information is provided below) to request brochures and information about the efforts in Missouri to improve the health of children and adolescents. Use the FCCLA Planning Process to determine how students in your school can get involved with educating your school and community.

Teacher Note: Action for Healthy Kids (AFHK) is a nationwide initiative dedicated to improving the health and educational performance of children through better nutrition and physical activity in schools. There are more than 40 partner organizations in AFHK including the American Association of Family and Consumer Sciences. Information about the program is available at <http://www.actionforhealthykids.org/>

The Missouri State Team operates in collaboration with the Missouri Coordinated School Health Coalition. The Team developed a brochure for parents and families called “Missouri Families, Eating Better and Moving More”. Brochures have been printed and will be distributed through the Practical Parenting Partnerships’ Newsletter, the PTA’s newsletter and to school boards, the Girl Scouts, and the Boy Scouts. More information on Missouri state data and AFHK activities is available at http://www.actionforhealthykids.org/devel/state_profile.php?state=MO

5. **Determine short- and long-term wellness goals. (Competencies C-5, C-6)**
 - a. Use Activity Sheet #7: **Setting My Goals for a Healthy Weight** to make a plan for a healthy future.
 - b. Use Activity Sheet #8: **Keeping Track of My Progress** to monitor your progress toward healthier habits.
 - c. Access the Missouri Action for Healthy Kids state profile at http://www.actionforhealthykids.org/devel/state_profile.php?state=MO View the online report or print out a copy to use in class. The report provides current data on health behaviors and risks for Missouri students. Discuss the questions below to determine what can be done in your school and community.

Questions for Discussion/Formative Assessment

- *How does the health status of students in Missouri compare to the national average?*
- *From this data, which health risks do you think are the most important to address?*
- *Who do you think should be concerned about this data? Parents? School leaders? Community leaders? Local government leaders? Health care providers? Others....*
- *What actions should these leaders take to get involved?*
- *What do you predict for the future of these students if no one takes any action?*

- d. Access the Fit-4-Life website provided by the Centers for Disease Control at http://www.bam.gov/sub_physicalactivity/index.html. This online resource includes a quiz to learn more about types of physical activities. It also includes a calendar creator to design a personal fitness and activity schedule.
- e. Access the International Food Information Council's website for information on reducing fat in the diet at <http://ific.org/publications/brochures/benbalbroch.cfm>. Discuss the definitions of low-fat, reduced fat, light, etc. Bring in various Nutrition Fact labels from products you regularly consume. Compare the amount of fat listed on "regular" products and on the similar product that claims to have less fat.
- f. Identify a favorite food or recipe that is traditionally higher in fat such as banana bread or clam chowder. Discuss what ingredients in that food contribute to its high fat content. Suggest ingredient substitutions to lower the fat in that food item, for example, substituting applesauce for oil in muffins. Set up a blind taste test for regular and lower fat food items such as regular milk and skim milk; regular cheddar cheese and reduced fat; a regular cookie and the lower fat equivalent cookie; regular potato chips and the reduced fat version. Rate the foods before they know which item is regular and which is reduced fat. A comparison of fat-free vs. regular calorie foods is available online at: http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/fat_free.htm

Summative Assessments

Paper and Pencil

1. Read Assessment #1: **Just for the Health of It**. Use the **Just for the Health of It Check List** to assess your learning regarding lifestyle habits and overall wellness. Develop an exercise plan, research a lifestyle health risk, make an oral presentation and a written report to demonstrate your learning. A **Just for the Health of It Scoring Guide** is included. (Competencies C-4, C-6)
2. Using the information from Instructional Strategy 1(b) related to soft drinks in schools, write a letter to the members of the School Board stating why vending machines that provide soda and candy should not be allowed in your school. Cite facts as well as your opinion in the letter. (Competency C-4)

3. Many popular recipes call for ingredients that are traditionally higher in fat. Review Assessment Sheet 2(a): **Ingredients to Lighten Up** to discover some suggestions for ingredient substitutions that will reduce the fat in the overall recipe. Apply that information to Assessment Sheet 2(b): **Recipes to Lighten Up** by identifying ingredients to substitute in each recipe. You may want to use ingredient substitutions and cooking method substitutions to lower the overall fat content for some of the recipes. (Competency C-4)

Classroom Experiences

1. Use Assessment Sheet #3: **Eating Disorders Scoring Guide** to evaluate the Eating Disorders Webquest Activity. Use credible sources to research eating disorders, make an oral presentation and use technology to create a presentation for this assessment. (Competency C-5)

Application to Real Life

1. Bring in recipes from home that your family enjoys. Review the recipes and indicate ingredient substitutions or cooking method substitutions to lower the overall fat content. (Competency C-4)

Fact Sheet #1

National Eating Disorders Association Statistics: Eating Disorders and their Precursors

The Prevalence of Eating Disorders

In the United States, **as many as 10 million females and 1 million males** are fighting a life and death battle with an eating disorder such as anorexia or bulimia. Approximately **25 million more** are struggling with binge eating disorder (Crowther et al., 1992; Fairburn et al., 1993; Gordon, 1990; Hoek, 1995; Shisslak et al., 1995). Because of the secretiveness and shame associated with eating disorders, many cases are probably not reported. In addition, many individuals struggle with body dissatisfaction and sub-clinical disordered eating attitudes and behaviors. For example, it has been shown that **80%** of American women are dissatisfied with their appearance (Smolak, 1996).

The Drive for Thinness

- **42%** of 1st - 3rd grade girls want to be thinner (Collins, 1991).
- **81%** of 10 year olds are afraid of being fat (Mellin et al., 1991).
- The average American woman is **5'4"** tall and weighs **140** pounds. The average American model is **5'11"** tall and weighs **117** pounds.
- Most fashion models are thinner than **98%** of American women (Smolak, 1996).

Dieting

- **51%** of 9 and 10 year-old girls feel better about themselves if they are on a diet (Mellin et al., 1991).
- **46%** of 9-11 year-olds are "sometimes" or "very often" on diets, and **82%** of their families are "sometimes" or "very often" on diets (Gustafson-Larson & Terry, 1992).
- **91%** of women recently surveyed on a college campus had attempted to control their weight through dieting, **22%** dieted "often" or "always" (Kurth et al., 1995).
- **95%** of all dieters will regain their lost weight in 1-5 years (Grodstein, 1996).
- **35%** of "normal dieters" progress to pathological dieting. Of those, **20-25%** progress to partial or full-syndrome eating disorders (Shisslak & Crago, 1995).
- **25%** of American men and **45%** of American women are on a diet on any given day (Smolak, 1996).
- Americans spend over **\$40 billion** on dieting and diet-related products each year (Smolak, 1996).



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Please also cite the National Eating Disorders Association's Information and Referral Helpline: 1-800-931-2237 and web site: www.NationalEatingDisorders.org



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Fact Sheet #2**Characteristics of Fad Diets**

1. Limited food choices
2. Excludes certain food groups and lacks certain nutrients
3. Requires special or unusual foods or supplements, which can be expensive
4. Promotes rapid weight loss of more than 2 pounds per week
5. Can only be followed for short periods of time (difficult to maintain)
6. Diet backed by personal testimonies, rather than by sound medical research

Weight loss occurs when the amount of calories consumed is less than the energy needed by the body.

Source: Virginia Action for Health Kids

Fact Sheet #3

Body Mass Index and Health

Many Americans are becoming overweight or obese (1-3). These conditions can lead to chronic diseases such as high blood pressure, diabetes, stroke, cancer, and diseases of the gallbladder, heart and lungs (1-8). Such diseases can reduce the quality of life and can also lead to death (1, 4, 9). Body Mass Index (BMI) is one of the commonly used measures of obesity.

What is Body Mass Index (BMI)?

BMI is a ratio of a person’s weight to height. BMI is commonly used to classify weight as “healthy” or “unhealthy.”

How is BMI determined?

BMI can be determined by using the following equation:

$$\text{BMI} = \frac{705 \times \text{Body weight (in pounds)}}{(\text{Height (in inches)} \times \text{Height (in inches)})}$$

Example:

A person who is 5 feet and 6 inches (66 inches) tall and weighs 155 pounds has a BMI of 25.
 1 foot = 12 inches, therefore 5 feet = 5x12 = (60 inches) /6 inches = 66 inches
 BMI = 705 x 155 / (66 x 66) = 25

What does BMI mean?

BMI values between 18.5 and 24.9 are considered “normal” or “healthy” weight. (Table 1). BMI values between 25 and 29.9 are considered “overweight” and 30 and above are considered “obese.” BMIs above 25 are unhealthy and have been shown to increase the risk of certain chronic diseases (1-8). BMIs under 18.5 are considered “underweight.”

Table 1 Body Mass Index Categories

BMI	Weight Category
Less than 18.5	Underweight
18.5-24.9	Normal Weight
25 – 29.9	Overweight
30 and above	Obese

Table 2 can also be used to estimate BMI. Find height in inches. Move across to the right and choose the nearest weight in pounds. BMI can be found at the bottom of that column.

Fact Sheet #3

Table 2 Body Mass Index Look-up Table

Height	Weight in Pounds																
4' 10" (58")	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167
4' 11" (59")	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173
5' (60")	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179
5' 1" (61")	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185
5' 2" (62")	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191
5' 3" (63")	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197
5' 4" (64")	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204
5' 5" (65")	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210
5' 6" (66")	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216
5' 7" (67")	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223
5' 8" (68")	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230
5' 9" (69")	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236
5' 10" (70")	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243
5' 11" (71")	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250
6' (72")	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258
6' 1" (73")	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265
6' 2" (74")	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272
6' 3" (75")	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

Can BMI be used by everyone?

For most people, BMI provides a good measure of obesity. However, BMI does not provide actual information on body composition (i.e. the properties of muscle, bone, fat, and other tissues that make up a person's total body weight), and may not be the most appropriate indicator to determine health status for certain groups of people. For example, athletes with dense bones and well developed muscles or people with large body frames may be obese by BMI standards (i.e. they have BMIs greater than 30), but yet have little body fat. On the other hand, inactive people may seem to have acceptable weights when, in fact, they may have too much body fat. Similarly, a petite gymnast may be considered underweight but not unhealthy (10). BMI, when used for children and adolescents who are still growing (11), pregnant women, people with large body frames, or petite and highly muscular individuals, should be interpreted cautiously.

How does BMI relate to health?

BMI is generally related to body fat. Higher BMIs usually mean higher body fat (3). As body fat or BMI increases, especially from values equal to or greater than 30, health risks increase (3). Being overweight (BMI of 25 to 30) or being obese (BMI greater than 30) increases the risk of

Fact Sheet #3 Continued

having high blood pressure, heart disease, stroke, diabetes, certain types of cancer, arthritis, and breathing problems (4-8). Research shows that being obese lowers one's life expectancy (4, 9). When overweight or obese people lose weight, they also lower their blood pressure, total cholesterol, LDL (or "bad") cholesterol, increase their HDL (or "good") cholesterol, improve their blood sugar levels, and reduce their amount of abdominal fat (4).

What Research Studies Relate BMI to Diseases and Longevity?

In 1998, the National Institutes of Health issues a report to identify and treat obesity and overweight. Many scientific research studies suggest that weight loss reduces chronic diseases and improves the life span of people who are overweight. This report provided recommendations to clinicians and the public about weight management (3). In developing this report, more than 43, 627 research articles were obtained from a search of the scientific literature and reviewed by a panel of researchers. Researchers have examined the importance of weight reduction in people with high blood cholesterol (4), high blood pressure (5), diabetes (6), cancer (7), and osteoarthritis (8), and reported that weight loss reduces the risks for those diseases.

Conclusions

The link between BMI and health shows that overweight or obese people are more likely than those at normal weight to have medical problems such as high blood pressure, high cholesterol, stroke, diabetes, and heart disease. Research studies have shown that even a weight loss of 1-2 pounds per week for six months can improve the health of overweight people (3). The goal of weight loss should be to improve health. Rapid weight loss, swings in weight, and improper dieting should not be the goal (12, 13).

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Related Web Sites

You can find more information about BMI, weight, nutrition, and health by visiting the following web sites:

American Dietetic Association <http://www.eatright.org>
American Heart Association..... <http://www.americanheart.org>
National Heart, Lung, and Blood Institute <http://www.nhlbi.nih.gov>
National Institutes of Diabetes, & Digestive & Kidney
Diseases <http://www.niddk.nih.gov/>

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Competencies C-4, C-6
Activity Sheet #1

Name _____

Information Search: Lifestyle Habits That Increase Health Risks

Most Common Causes of Death, United States, 2001*

Condition	Rate
Diseases of the Heart	246.8
All Cancers	195.6
Stroke	57.7
Chronic lower respiratory diseases	43.6
Unintentional injuries	35.5
Diabetes mellitus	25.2
Influenza and pneumonia	21.8
Alzheimer's disease	19.0
Nephritis and nephrosis	13.9
All other causes	192.4

*Rates are age adjusted to 2000 total U.S. population.

Select one of these “killer” diseases to investigate. You may use the Internet, library or classroom resources to search for information to answer the following questions.

1. Which disease did your group select?
2. What are the common risk factors that contribute to this disease?
(A risk factor might be cigarette smoking, being overweight, etc.)
3. How might a person's diet or lifestyle increase his or her risk for this disease?
4. What steps could be taken to reduce the risk for this disease?
5. Where can you find credible information about this disease?

Competencies C-4, C-6
Activity Sheet #2

Name _____

SEARCH for Solutions

The SEARCH for Solutions takes you step-by-step through the problem-solving process. Complete the steps below as you solve practical problems. You may go through the steps in a different order, but it is important to complete every step.

State the problem to be solved.

Examine information needed to solve the problem.

GOALS & VALUES:

FACTS:

CONSIDERATIONS:

Analyze options or alternatives.

POSSIBLE SOLUTIONS:

POSSIBLE CONSEQUENCES:

EXPECTED OUTCOME:

Review the options and select the best choice. Place a check beside your solution listed above. Provide logical reasons for your choice.

Defend your solutions:

Relevance to the problem

Ethical base (positive long-term effects on all involved)

Ability to resolve the problem

Strength based on facts

Chart and start a plan for action. Identify the actions you need to take, when they will be done, and who will do them.

Highlight the outcome of your actions. Evaluate whether or not your choice was best. Identify what you have learned from solving this problem. Did you discover another solution you could have tried?

Competencies C-4, C-6
Activity Sheet #3



Eat Right



A Student Body topic area to help young people explore good nutrition, eating disorders, healthy snacks, supplements, vegetarianism, and more

Have you heard the expression, “You are what you eat”? In many ways it’s true! Healthy eating pays off both now and in the future. Good nutrition helps you control your weight, maintain energy, ward off illnesses, and feel good-and you’ll probably live longer, too!

Through “Eat Right” projects, young people learn why and how to make wise food choices.

Topics You Might Address Through “Eat Right” Projects

On the list below, check the project areas that interest you and that fit the needs of other young people around you. Add your own ideas on the blank lines.

Then, circle your top three interests/concerns. If working in a group, first write down each person’s top three interests/concerns. Discuss these options, then circle the groups top three interests/concerns.

- nutrition basics
- how to use the food guide pyramid
- understanding food labels
- healthy snacking
- eating disorders (anorexia, bulimia, gorging, etc.)
- facts and myths about nutritional and herbal supplements
- how to build a healthy diet as a vegetarian
- healthy eating on a budget
- how to reduce food waste
- safe food handling
- how to eat right for better sports performance
- how to eat right for current and future health
- how food advertising influences eating habits
- careers related to nutrition and food safety
- _____
- _____
- _____

**Competency C-5
Activity Sheet #4**

Name _____

Dieting Statistics in America

Estimate the percentage for each question below. Write your answers in the blanks beside each question. Your teacher will provide the actual percentages. Compare your estimates to the research data.

- _____ How many 1st-3rd grade girls say they want to be thinner?
- _____ How many 10 year olds report they are afraid of being fat?
- _____ What is the average height and weight of an American woman?
- _____ What is the average height and weight of an American model?
- _____ Most fashion models are thinner than what percent of American women?
- _____ What percent of 9 and 10 year-old girls say they feel better about themselves if they are on a diet?
- _____ What percent of 9-11 year-olds are "sometimes" or "very often" on diets, and what percent of their families are "sometimes" or "very often" on diets?
- _____ What percent of women recently surveyed on a college campus had attempted to control their weight through dieting?
- _____ What percent of all dieters will regain their lost weight in 1-5 years?
- _____ What percent of "normal dieters" progress to partial or full-syndrome eating disorders?
- _____ What percent of American men and what percent of American women are on a diet on any given day?
- _____ Americans spend how much on dieting and diet-related products each year?



WebQuest

Activity Sheet #5

Understanding Eating Disorders

Introduction

Eating disorders afflict millions of people, thousands of which will die from them yearly. A 1990 study by the National Association of Anorexia Nervosa and Associated Disorders, found that 11% of high school students suffer from an eating disorder.

You have noticed that your friend has had significant fluctuations in their weight in a short period of time. You fear your friend may become part of the statistics listed above and begin to wonder if your friend has an eating disorder. What should you do and who can help?

Your Task

As a friend, you cannot ignore your suspicions; however you do not want to wrongly accuse your friend of having an eating disorder. You will be given a scenario in which you will use the Internet to research several disorders and figure out which disorder your friend is suffering from. After determining the disorder, your group will devise a set of strategies that can be used to help your friend overcome their problem.

Prepare a PowerPoint presentation concerning the information you have researched and present it to the class. In this presentation, your group will discuss the eating disorder, as well as the set of strategies that you formulated to help your friend.

The WebQuest Investigation

There are mainly four types of eating disorders:

- anorexia nervosa
- bulimia
- compulsive overeating
- binge eating

Below are four scenarios that refer to one of the above disorders. Your group will be assigned to use one of these scenarios:

- A. You have noticed that one of your friends has been very depressed lately. She or he has also had fluctuations in weight as well as low self esteem. You have tried to comfort your friend but your friend believes that everything will only be okay if they can just lose weight.



WebQuest

Activity Sheet #5 Continued

- B. Your friend has become severely critical of her weight. You have also noticed that she sometimes skips lunch at school; however, if she does eat lunch she always excuses herself to the bathroom before returning to class. Recently while searching for a piece of gum in her purse you found a box of laxatives.
- C. You have noticed that your friend eats very little at lunch; however, when you are with him on the weekend he tends to eat large quantities of food. Also, all of his conversations tend to be focused on his body image and lately he has been withdrawing from activities because of embarrassment about his weight.
- D. Your friend has become excessively thin yet she constantly complains that she is too fat. She has begun a strict workout routine after school which involves two hours of intense training. At school you have noticed she is always tired and last week she fainted at her locker. In addition, at lunch she is always concerned about the amount of calories that she is consuming.

Step One

Your group needs to follow the two instructions below to help your friend.

1. Research the internet, library sources, and other materials to determine which eating disorder your friend has. (links are provided below)
2. Research strategies people use to overcome eating disorders.

Step Two

Here are some Internet websites that may help you with your investigation.

<http://www.mirror-mirror.org/eatdis.htm> - This website has information concerning definitions, signs, symptoms, getting help, and approaching a loved one.

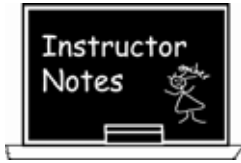
<http://www.edauk.com/> - Provides information and help on all kinds of eating disorders.

<http://www.something-fishy.org/> - Contains valuable information on anorexia nervosa, bulimia, and compulsive overeating.

<http://www.anred.com/> - information about all types of eating disorders.

<http://www.nlm.nih.gov/medlineplus/eatingdisorders.html> - Medline Plus is a service of the U.S. National Library of Medicine and the National Institutes of Health. Includes links to a variety of other resources.

<http://www.nimh.nih.gov/publicat/eatingdisorders.cfm> - National Institute of Mental Health offers information and suggestions for helping.



WebQuest *Activity Sheet #5 Continued*

Step Three

Design your own strategy for helping your friend overcome their disorder. Tips:

- a) Choose who you will discuss this problem with
- b) Determine which health care professionals should be contacted
- c) Make sure you confront your friend in a setting where they will not feel threatened
- d) Do not make accusations when confronting your friend

Evaluation

Develop a PowerPoint presentation to share with your friend to help her or him understand about the eating disorder. Your PowerPoint presentation should be 5-10 minutes in length and include the following...

- A definition of the eating disorder for which your group researched.
- Signs and symptoms
- At least one strategy your group found on the Internet that is currently being used to help someone overcome an eating disorder
- A strategy designed by the group.

Conclusion

In this activity you have learned about many eating disorders. Not only have you gained information about the eating disorder your team extensively researched, you have also learned about the other disorders presented by your classmates. In addition to learning about eating disorders, you have also strengthened your research, group work, and presentation skills. Although this was a class assignment, remember that the knowledge you have gained can be applied in real life situations. It is also important to remember that you should always seek professional help if this type of situation actually arises.

Eating Disorders Webquest Scoring Guide

Criterion	3	2	1	Score
Research and Accuracy	Diagnosed the correct eating disorder for the case study. Consulted a minimum of 5 credible sources. Information was accurate and complete.	Diagnosed the correct eating disorder for the case study. Consulted a minimum of 3 credible sources. Information was accurate through not complete.	Diagnosed the correct eating disorder for the case study. Consulted a minimum of 2 credible sources. Information was accurate though not complete.	
Oral Presentation	All members participated. Voices projected throughout the classroom. Important information was stressed.	Not all members participated. Voices projected throughout the classroom. Important information was included.	Not all members participated. Voices projected throughout the classroom. Important information was missing.	
PowerPoint Presentation	Good use of visual design and graphic elements. Presentation met time requirements and supported oral presentation.	Good effort to include graphic elements. Presentation met time requirements and generally supported oral presentation.	Limited use of visual design and graphic elements. Presentation did not meet time requirements, generally supported oral presentation.	
Group Strategy	Appropriate health care providers were identified to help. Group strategy was appropriate and realistic.	Appropriate health care providers were identified to help. Group strategy was appropriate though somewhat unrealistic.	Appropriate health care providers were identified to help. Group strategy was appropriate though entirely unrealistic.	
Teamwork	All team members participated throughout the project. Time and other resources were well utilized. Team was organized.	All team members participated throughout the project. Time and other resources were well utilized at times. Team was usually organized.	Not all team members participated in the project. Time and other resources were utilized though team was sometimes disorganized.	

TOTAL POINTS

Competency C-6
Activity Sheet #6

Name _____

Calculate Your Basal Metabolic Rate

You burn calories or use energy no matter what you're doing, or not doing. Even when you are lying on the sofa just watching television your body is burning calories to maintain your heartbeat, breathing and normal body temperature. Your Basal Metabolic Rate (BMR) is the number of calories you burn every day doing nothing. This is the minimum number of calories you need each day. Your level of physical activity each day requires additional energy.

Basal Metabolic Rate decreases as you age. Likewise, skipping meals in hopes of losing weight also decreases your BMR; within a few days your body adapts to receiving less fuel and it slows down to conserve energy. Therefore, eating regular, balanced meals every day (not skipping meals) and a regular routine of cardiovascular exercise can increase your BMR and help you burn more calories each day rather than store calories as fat.

To get an estimate of your BMR, complete the following calculation:

Males: your weight X 12 = your BMR

_____ X 12 = _____

Females: your weight X 11 = your BMR

_____ X 11 = _____

This calculation provides an estimate of your BMR. To get an exact calculation of your BMR you would need to consult a nutritionist or dietitian.

If you consumer more calories each than you burn, your body will store those calories as fat, whether the calories originated from protein, carbohydrate, fat or alcohol — **if you do not use it, your body will store it.**

Competencies C-5, C-6
Activity Sheet #7

Name _____

Setting My Goals for a Healthy Weight

Write the answers to the questions below to help you make a plan and set goals for a healthy weight that is realistic for you.

1. Starting with today. What are your feelings today about your current body weight and level of fitness?

2. List at least three goals that will help you change your body weight or level of fitness. Be specific. Don't say, "I plan to cut back on snack foods." Do say, "I will cut back to only one soda per day." That is more specific and measurable. Also, list the date or amount of time you need to achieve these goals.

3. Is your current diet meeting the guidelines recommended by the Dietary Guidelines for Americans, 2005? If not, what areas can you improve?

4. List some foods below that will help you balance your diet to meet the dietary guidelines.

5. List any foods below that you need to avoid. These foods may be high in calorie content, you may consume too much of these foods, or they may lack nutrient value.

Competencies C-5, C-6
Activity Sheet #8

Name _____

Keeping Track of My Progress Toward a Healthier Lifestyle

Go over this checklist every week to answer each question Yes or No. Review your progress to determine what adjustment you need to make to stay on track to meet your goals.

Weekly Progress Check	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
1. I am committed to making a change.						
2. My goals are realistic for me.						
3. Include exercise every day						
4. I consume less fat in my diet.						
5. I monitor the total calories in my diet.						
6. I eliminated extra foods that I don't need.						
7. I avoid automatic eating "just because." Just because I always have a snack after school. Just because everyone else was having dessert. Just because I was watching tv.						
8. I plan meals ahead of time.						
9. I control the portion sizes that I eat.						
10. I eat slowly and only at the table.						
11. I avoid social binges with friends.						
12. I do not eat out more than once per week. When I do eat out, I choose foods carefully and monitor the portion sizes I eat.						
13. I have a strong support group to help me keep focused on my goals.						
14. I think positive thoughts.						
15. I reward myself for small achievements.						

Competencies C-4, C-6
Assessment #1

Name _____

Just For the Health of It

Jarod, a lifelong friend of yours, has lost over 200 pounds over the last two years. When he realized that his XXXXXL size and history of family health problems was dangerous and ruining his love life, he decided to make some changes. Utilizing Subway's low fat sandwich menu items incorporating exercise by walking to the restaurant everyday, he is now both fit and trim.

Unfortunately, yesterday as Jarod was walking through Best Buy, the 100 TVs blared CNN's latest breaking story. Jarod couldn't believe his ears when the newscaster announced, "Subway is going out of business! All stores will close at midnight tonight."

Distraught by the news and fearing the consequences, Jarod comes to you in a panic. "What will I do everyday for lunch now? Will I actually have to plan my own meals?" Because of your expertise in nutrition and wellness, he asks for your help. Jarod wants to know what YOU do to maintain a healthy lifestyle.

You are excited by the opportunity to apply all of your knowledge to help out a friend. Jarod has asked that you provide him you daily menu plans, exercise regimen, and helpful information about the health issues that plague his family.

You have decided to provide Jarod with the following useful information:

A 3-day menu plan including breakfast, lunch, dinner, and snacks. At least one meal must come from a fast food restaurant. This plan will follow the dietary guidelines and include the appropriate number of servings from each group in the food guide pyramid. An appropriate representation of the essential nutrients must be incorporated into each menu. To best explain your plan to Jarod, you list the menu plan and then write an analysis of each daily menu including all of the above information.

An exercise plan including the type of exercises he should do, the duration and frequency of the activity, the number of calories that are burned in a given amount of time, and the health benefits of following your plan.

Research one health concern that plagues Jarod's family. (Jarod's family has had a lot of health problems -- diabetes, high blood pressure, heart disease, high cholesterol, osteoporosis, obesity, anorexia, and cancer. You should explain to Jarod how the disease is related to nutrition and fitness, common symptoms, and dietary/lifestyle recommendations.

Assemble all of the information into a report that is bound and includes a cover page. Use the Just for the Health of It Check List to ensure you have completed everything for this assignment. You will make an oral presentation of your plan to Jarod (the class).

Jarod is counting on you to help him maintain the health and fitness levels he has worked so hard to achieve. Don't let him down.

Just For the Health of It Checklist

<u>Presentation</u>	Self	Peer	Teacher
Bound	_____	_____	_____
Colorful/Creative Cover page	_____	_____	_____
Project well-planned/organized	_____	_____	_____
Project is neatly typed	_____	_____	_____
<u>3-Day Menu</u>			
3 complete daily menus (breakfast, lunch, dinner, snacks)	_____	_____	_____
one meal comes from a fast-food restaurant	_____	_____	_____
Dietary Guidelines incorporated into daily menu	_____	_____	_____
Appropriate # of servings represented	_____	_____	_____
Appropriate representation of essential nutrients	_____	_____	_____
Written analysis of each daily menu is thorough and well-written	_____	_____	_____
<u>Exercise Plan</u>			
Types of exercise identified	_____	_____	_____
Duration and frequency of activity	_____	_____	_____
# of calories burned in a given time period listed	_____	_____	_____
Health benefits included	_____	_____	_____
<u>Health Concern</u>			
Cause of the health concern identified	_____	_____	_____
Symptoms of the health concern identified	_____	_____	_____
Dietary changes/recommendations identified	_____	_____	_____

Student Name _____

Just For the Health of It Scoring Guide

Criterion	3	2	1	Score
Presentation	Develops a final product that meets all check list items. Clearly, creatively & effectively communicates the main idea and purpose.	Develops a final product that meets all check list items. Communicates the main ideas accurately and adequately.	Develops a final product that communicates important information. May include some fact errors or some information may be lacking or unclear.	
3-Day Menu	Menu is complete with serving sizes, nutrients, food groups, etc. Menu meets all Dietary Guidelines.	Menu is mostly complete with serving sizes, nutrients, food groups, etc. Menu meets most of the Dietary Guidelines.	Menu is complete although some details may be missing or incorrect such as serving sizes, nutrients, or food groups. Dietary Guidelines omitted.	
Menu Analysis	Written analysis is clear and complete. Demonstrates an understanding of the role of the Dietary Guidelines and MyPyramid in planning healthful meals.	Written analysis is clear and complete. No more than 3 errors in applying the Dietary Guidelines and MyPyramid in planning healthful meals.	Written analysis is clear and complete. More than 3 errors in applying the Dietary Guidelines and MyPyramid in planning healthful meals.	
Fitness Plan	Provides a complete and accurate explanation of the exercise and expected outcomes.	Provides a nearly complete explanation of the exercise and expected outcomes. Accurate though some detail may be missing.	Provides an explanation of most exercises. Accurate though some detail may be missing.	
Health Concern Research	Research is thorough and information is accurate. Only credible sources are cited; two or more sources are used. Recommendations for lifestyle changes are appropriate.	Research is accurate. Only credible sources are cited; two or more sources are used. Recommendations for lifestyle changes are appropriate.	Research is accurate. Only credible sources are cited; Recommendations for lifestyle changes are weak or missing.	

Total Score: _____

Comments: _____

**Competency C-6
Assessment 2(a)**

Name _____

Lighten Up

Instead of a high-fat ingredient like sour cream or mayonnaise, substitute lowfat yogurt. Or switch to skim milk instead of using whole. It's these little here-and-there changes that add up to big fat-and-calorie savings.

Instead of...	Substitute...	And save...	
		Fat, grams	Calories
Whole milk (1 cup)	Skim milk (1 cup)	8	64
Whole egg (1)	Egg whites (2)	6	47
Cream cheese (1 oz)	Neufchatel (1 oz)	3	24
Ricotta cheese (1/2 cup)	1% cottage cheese (1/2 cup)	14	52
Cheddar cheese (1 oz)	Mozzarella, skim (1 oz)	4	42
Heavy cream (1 Tbl)	Half and half (1 Tbl)	32	15
Sour cream (1/2 cup)	Lowfat yogurt (1/2 cup)	18	172
Fudge sauce (2 Tbl)	Chocolate syrup (2 Tbl)	4	32

Source: The Healthy Weigh: A Practical Food Guide. The American Dietetic Association. 1991.

**Competency C-4
Assessment #2(b)**

Name _____

Recipes to Lighten Up

Review the recipes below and indicate ingredient substitutions or cooking method substitutions to lower the overall fat content.

Lasagne

- 1 lb Italian sausage
- 1 clove garlic, minced
- 1 Tbl basil
- 1 1/2 tsp salt
- 1 16 oz can whole tomatoes
- 2 6 oz cans tomato paste
- 10 oz lasagne noodles
- 2 eggs
- 3 c Ricotta
- 1/2 c grated Parmesan or Romano cheese
- 2 Tbl parsley flakes
- 1 tsp salt
- 1/2 tsp pepper
- 1 lb mozzarella cheese, sliced very thin

Chicken Pot Pie

- Pastry for 2-crust pie
- 1/2 c chopped onion
- 6 Tbl butter
- 1/2 c all-purpose flour
- 1 c heavy cream
- 3 c chicken broth
- 3 c cubed cooked chicken
- 1 10-oz pkg frozen peas and carrots
- 1/4 c chopped canned pimiento

Taco Salad

- 2 c shredded lettuce
- 1 15-oz can dark red kidney beans, drained
- 2 med. tomatoes, chopped
- 1 Tbl chopped canned green chilies
- 1/2 c sliced ripe olives
- 1 large avocado, chopped
- 1/2 c dairy sour cream
- 2 Tbl bottled salsa
- 1 tsp minced onion
- 3/4 tsp chili powder
- 1/4 tsp salt
- 1/2 c shredded Cheddar cheese
- 1/2 c crushed corn chips

Cheeseburger and Fries

- 1 1/4 lb hamburger patty
- 1 hamburger bun
- 1 slice Cheddar cheese
- ketchup or mustard and pickles
- 1 c frozen French fries
- 1/4 c shredded Cheddar cheese
- 1/4 c Ranch dressing

Fry hamburger patty until no pink remains. Top with sliced Cheddar cheese and allow cheese to melt slightly. Serve cheeseburger on bun with condiments.

Deep fry French fries until golden brown. Drain. Top with shredded Cheddar cheese. Serve Ranch dressing on the side as a dip.