

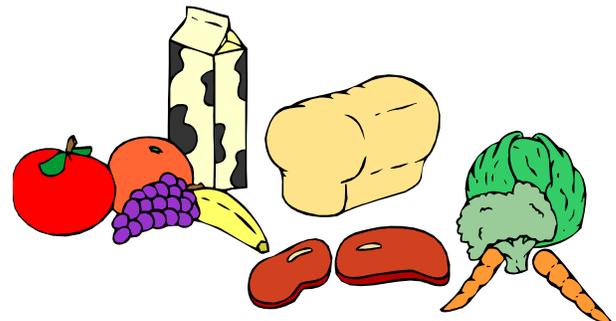


Sandy Garrett, State Superintendent of Public Instruction

Oklahoma State Department of Education

Pyramid Power: A Study in Nutrition

AREA OF SERVICE	Health and Public Safety
COMMUNITY NEED	Food for the needy
TYPE OF SERVICE	Indirect
SUBJECT AREA/LEVEL	Health/K-5
CONCEPT	Power



SERVICE-LEARNING PROJECT SUMMARY

This elementary school project uses student learning from a study of nutrition to solve a community problem or need for food for the needy. Participating students will organize a canned food drive following nutritional guidelines and donate the food to a local food kitchen.

LEARNING STANDARDS

Oklahoma Priority Academic Student Skills

Health/Safety Education

Standard 1 – The student will comprehend concepts related to health promotion, disease prevention, and safety practices.

Standard 3 – The student will know health-enhancing behaviors and how to reduce health risks.

Mathematics

Standard 2: Number Sense – The student will demonstrate an understanding of the basic concepts and properties of real numbers.

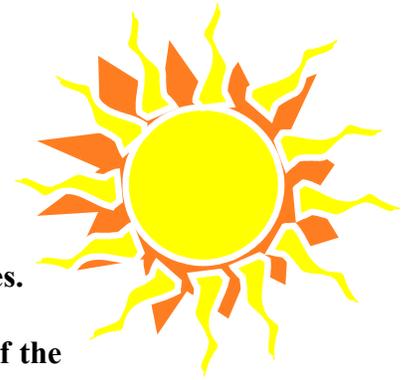
Standard 3: Number Operations and Computation – The student will estimate and compute with whole numbers, decimals, and fractions.

Standard 4: Geometry and Measurement – The student will apply geometric properties and relationships and use measurements within the metric and customary systems to solve problems in various contexts.

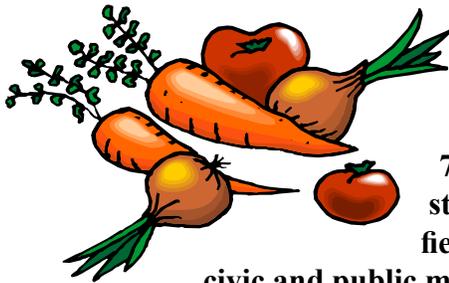
Standard 5: Data Analysis and Probability – The student will use data analysis, statistics and probability to interpret data in a variety of contexts.

Pyramid Power

Implementation Outline



1. Under teacher direction, students will identify the power source of familiar objects.
2. Teacher will guide students to reflect upon the various power sources.
3. Teacher will guide students to identify the various power sources of the human body.
4. Teacher will present information related to the topics of nutrition, health promotion, disease prevention, and safety practices.
5. Students will practice using the skills and information from #4 through workbooks, worksheets, and writing exercises etc.



6. Students will identify a need in their community and design service project(s) that utilize the knowledge and skills developed in #4 and #5.
7. Students will refine their service project(s), identify any local, state, or national laws, agencies, or policies that relate to the identified community need and their proposed service, and articulate the civic and public meaning of their proposed service.

8. Students will implement their service project and share their accomplishments with the community.

TEACHER'S GUIDE

Pyramid Power

Teacher's Note

Using the concept of “power,” the teacher will engage students in an active unit of study around the health topic of “nutrition” to solve a student-identified community problem. Teachers may collaborate with others to broaden student understanding of the concept including formal government power, exponential power, and energy.

1. Under teacher direction, students will identify the power source of familiar objects.

Activity: Teacher will display an assortment of objects that require various fuels to operate; for example, a solar calculator, a battery-operated toy, a toy sailboat, or a toy car. Students will identify the power source needed to operate each object.

2. Teacher will guide students to reflect upon the various sources and types of power.

Activity: Brainstorm a list of other common objects that require a power source to operate. Students will identify the power source for each object listed.

3. Teacher will guide students to identify the various power sources of the human body.

Activity 1: Divide students into pairs. Instruct students to trace their bodies onto large sheets of paper. Ask students to find or draw pictures of actions or objects that provide power to the body. Instruct students to glue or draw pictures onto the body outlines. Display completed drawings. Ask students to talk about the various body power sources they found.

Activity 2: Instruct students to draw a Venn diagram to compare and contrast human body power sources (i.e. food, water, air, and sleep) with the power sources identified in Step 2.

4. Teacher will present information related to the topics of nutrition, health promotion, disease prevention, and safety practices.

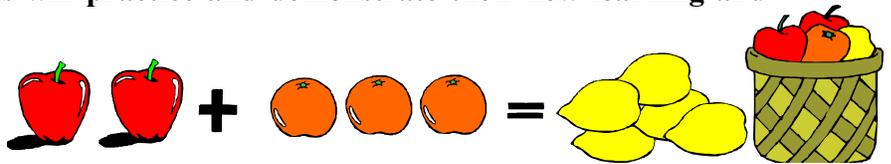
Activity 1: Explain to students that food is a power or energy source for their bodies. Utilize a KWL (Know, Would Like to Know, Learn) chart to assess what students know and want to know about food and nutrition, energy and power.

Activity 2: Define related vocabulary.

Activity 3: Teach students about the food pyramid.

Activity 4: Invite a nutrition educator from the Oklahoma State Dept. of Education, a local nutritionist or health professional to discuss the importance of good nutrition relative to disease prevention.

5. Under teacher direction, students will practice and demonstrate their new learning and understanding of the concept and topics outlined in #4.



Activity 1: Instruct students to prepare a 7-day menu for their family based on the nutritional facts that they have learned.

Activity 2: Students will conduct a breakfast survey by asking classmates what they ate for breakfast. Students will categorize answers by food groups. Results will be graphed and compared to post assessment.

Activity 3: Divide students into cooperative groups of four or five. Teacher will create healthy and unhealthy breakfast menus and distribute them to the groups. Roles for each group member:

Student 1: Create a 3-dimensional food pyramid.

Student 2: Identify the food groups represented on each menu.

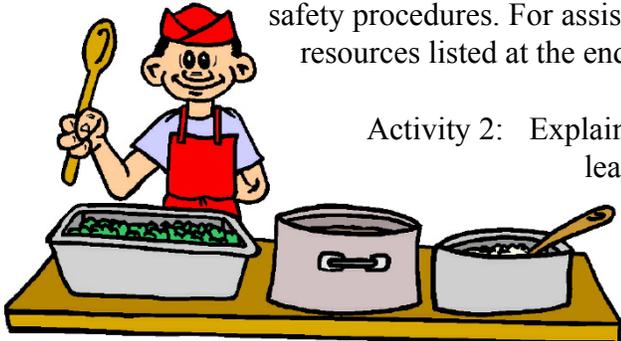
Student 3: Graph the distributions in a bar graph.

Student 4: Write an explanation of how the food affects the heart and digestive systems.

Student 5: Present findings to the class.

6. Students will identify a need in their community and design service project(s) that utilize the knowledge and skills developed in #4 and #5.

Activity 1: Students may identify a need in their community related to nutrition and develop a service project that utilizes their knowledge and skills of health promotion, disease prevention, and safety procedures. For assistance in designing a service or action project refer to the resources listed at the end of this unit.



Activity 2: Explain to the students that the primary purpose of this service-learning project is to organize a nutritional canned food drive at the school for a local food kitchen based on a seven-day menu for 100 people. Explain that the community has a responsibility to contribute to the health and well-being of its citizens. (These numbers can be modified to fit the local community.)

Activity 3: Read aloud and discuss *The Can-Do Thanksgiving* by Marion Hess Pomeranc. Ask students to talk about other canned food drives in which they or their families have participated.

Activity 4: Invite an employee or volunteer from the local food kitchen, senior citizens center, or other community organization that provides meals to community members to visit with the students about the services they provide and about the community resources needed to provide their services.

Activity 5: Ask students to identify the community “power sources” for operating the food kitchen.

Activity 6: Divide students into seven groups. Each group will plan and create a menu for three meals for one day that will serve 100 people. Each meal must be nutritionally balanced according to the Food Pyramid.

7. Students will refine their service project(s), identify any local, state, or national laws, agencies, or policies that relate to the identified community need and their proposed service, and articulate the civic and public meaning of their proposed service.

Activity 1: Students will analyze and refine their project design and develop a rubric for assessing the personal and community impact of their service.

Activity 2: Review nutritional guidelines and determine if each of the menus created adhere to the guideline. Make menu changes as needed.

Activity 3: Instruct each group of students to write a list of items needed to prepare the meals they have planned.

Activity 4: Distribute the list throughout their school and community to inform others of the specific items needed for their canned food drive.

Activity 5: Review the previous KWL chart to identify what students have learned about nutritional food choices.

Activity 6: Students will write a journal entry to record their personal responses to the information about nutrition and record any personal habits or choices that may have changed as a result of this unit.

Activity 7: Students will explore the deeper civic and public meanings of their service and synthesize any formal or informal government structures or laws related to the causes or effects of the community need addressed in their project. Students will discuss their understanding of the concept of power related to government and personal responsibility.

8. Students will implement their service project and share their accomplishments with the community.

Activity 1: Students will implement their project(s) and distribute cans to a local food kitchen or other appropriate venue.

Activity 2: Students will practice and perform “The Can-Do Thanksgiving” play for other groups or classes at their school.



INTERNET and OTHER RESOURCES

For information about designing a service or action project:

<http://www.crf-usa.org/act/act.html>

<http://www.crf-usa.org/cityyouth/cityyouth.html>

http://www.projectwild.org/materials/taking_action.htm

http://www.civiced.org/project_citizen.php?link=curriculum

<http://www.cns.org>

The Can-Do Thanksgiving by Marion Hess Pomeranc

<http://www.abcdbooks.org/curriculum/fooddrive.html#lesson3>

Food Safety and Inspection Service

<http://www.fsis.usda.gov/>

State Food Policy Council

<http://www.statefoodpolicy.org/okfpc.htm>