

Assignment Discovery Online Curriculum Body Invaders: WEIGHT CONTROL

Curriculum Focus

Health

Grade level

6-8

Duration

Two or three class periods

Objectives

Students will

- develop a healthful school lunch menu for a week; and
- learn about the importance of a healthy diet and assess their eating habits.

Materials

- Computer with Internet access
- Note and chart paper
- Pens, markers

Procedures

1. Divide the class into two groups and tell them that each group is going to research what constitutes a healthy diet. Students will create a week's worth of healthful lunches for the school cafeteria. Explain that students will find information about healthy diets on the Internet. If the class has access to only one computer, one group can brainstorm lunch menus based on past lunches and favorite meals at home while the other group is online.
2. Tell students they will be using the U.S. Department of Agriculture's Food Guide Pyramid as a guide to their meal planning. Ask if they've seen the pyramid on the boxes of such foods as cereal and crackers, and whether they're familiar with the concept.
3. Direct them to the following Web sites:
 - www.nal.usda.gov:8001/py/pmap.htm
Here they can research the Food Guide Pyramid, a general guide to a healthful diet. Suggest that students take notes as they explore the site with its Dietary Guidelines links to AIM for Fitness, BUILD a Healthy Base, and CHOOSE Sensibly. Have students take a few minutes to look over the Food Guide Pyramid and the recommended daily servings for each food group. Tell students that these servings apply to all people.
 - http://kidshealth.org/kid/stay_healthy/food/pyramid.html

This site features a colorful image of the Food Guide Pyramid and a look at the different food groups, as well as a glossary of medical terms and a link to articles on Being Good to My Body, Fabulous Food, and Keeping Fit and Having Fun.

4. After the two groups have finished their online research, have them create their week's worth of menus on chart paper. Tell them they may use markers to draw some of the foods or decorate their menus as they wish, perhaps even attaching Food Guide Pyramids from product boxes.
5. Have each group share its menus with the class. If a school nutritionist or dietician is available, arrange for that person to attend these presentations, comment on the menus, and talk to the students about the job, and the importance of eating right to stay fit.
6. Lead a class discussion on what the students learned about diet from the Web sites, why some foods are "good" and some are "bad," and how the students would assess their own diets.
7. Review important vocabulary words.
 - diet: Everything that someone consumes. A balanced diet is based on the scientific principles that healthful foods and appropriate nutrients must be consumed each day.
 - calorie: One calorie is the amount of energy needed to raise the temperature of 1 gram of water 1 degree Celsius.
 - Calorie: One Calorie, or kcal, is equal to 1,000 calories, the amount of energy required to raise 1 kilogram of water (about 2.2 pounds) 1 degree Celsius. Nutrition is measured in Calories.
 - nutrients: Substances found in foods that people need to stay healthy. Proteins, carbohydrates, vitamins, minerals, and fiber are essential elements of a nutritious diet. Proteins make the cells, while carbohydrates provide energy. Vitamins regulate chemical processes in which the body converts food into energy and tissues. Minerals such as calcium are essential for building strong bones and teeth. Fiber helps keep the digestive system functioning smoothly.
8. To help students understand what a serving is, share with them the following equivalencies:

Milk, Yogurt, and Cheese

1 serving = 1 cup of milk or yogurt

1 serving = 1_ ounces of natural cheese, or 2 ounces of processed cheese

Meat, Poultry, Fish, Dry Beans, Eggs, and Nuts

1 serving = 2-3 ounces of cooked lean meat, poultry, or fish (2 tablespoons of peanut

butter count as 1 ounce of lean meat)

1 serving = _ cup of cooked dry beans

1 serving = 1 egg

(2 tablespoons of peanut butter and 1/2 cup of peanuts is equivalent to 1 oz. of meat.

Because nuts are high in fat, they must be eaten sparingly. Two tablespoons of peanut butter is about 1/2 of a serving, as is 1/2 cup of peanuts. Rather than eat a complete serving of these foods, it may be wise to supplement these portions with other foods from that food group.)

Vegetables

1 serving = 1 cup of raw leafy vegetables

1 serving = cup of other vegetables, cooked or raw

1 serving = cups of vegetable juice

Fruits

1 serving = 1 medium apple, banana, or orange

1 serving = cup of chopped, cooked, or canned fruit

1 serving = cup of fruit juice

Bread, Cereal, Rice, and Pasta

1 serving = 1 slice of bread

1 serving = 1 ounce of ready-to-eat cereal

1 serving = cup of cooked cereal, rice, or pasta

9. Challenge students to create menus for breakfast and dinner for one week based on the Food Guide Pyramid and basic serving information.

Evaluation

Use the following three-point rubric to evaluate students' work during this lesson.

3 points: Students demonstrated a clear understanding of how to use the Internet as a research tool; worked cooperatively in their groups to create and present school lunch menus for a week; and actively participated in the class discussion on the importance of a healthful diet.

2 points: Students demonstrated an on-grade understanding of how to use the Internet as a research tool; worked somewhat cooperatively in their groups to create and present school lunch menus; and took some part in the class discussion on the importance of a healthful diet.

1 point: Students demonstrated a weak understanding of how to use the Internet as a research tool; had trouble working cooperatively in their groups to create and present school lunch menus; and participated little or not at all in the class discussion on the importance of a healthful diet.

Vocabulary

calorie

Definition: With a lowercase *c*, the term refers to the amount of energy needed to raise

the temperature of one gram of water one degree Celsius.

Context: When it comes to staying healthy, counting calories is much less important than eating a balanced diet.

Calorie

Definition: With an uppercase C, the term refers to the amount of energy required to raise one kilogram of water (about 2.2 pounds) one degree Celsius; one Calorie, or kcal, is equal to 1,000 calories.

Context: Nutrition is measured in Calories.

diet

Definition: Everything that is consumed. A balanced diet is based on the scientific principles that healthful foods and appropriate nutrients must be consumed each day.

Context: Eating a healthful diet helps prevent high cholesterol, high blood pressure, heart disease, and many other health problems

Food Guide Pyramid

Definition: A visual representation of the number of recommended daily servings in each of the six food groups; designed by the U.S. Department of Agriculture

Context: Use the Food Guide Pyramid as a general guide that lets you choose a healthful diet that's right for you.

nutrients

Definition: Substances, including proteins, carbohydrates, vitamins, and minerals, found in foods that people need to stay healthy

Context: Teenagers need to consume a great deal of calcium, the nutrient that helps build strong bones and teeth.

Academic Standards

This lesson plan addresses the following *National Science Education Standards*:

- Science in Personal and Social Perspectives: Personal health

Credit

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