It's Sugar Time!

Summary

Good health depends upon many things, including heredity, lifestyle, personality traits, mental health, attitudes, and the envronment. Good eathing habits for both animals and humans, proper exercise, and a moderate use of sugars can help keep you healthy.

Time Frame

2 class periods of 45 minutes each

Group Size

Small Groups

Materials

- Pencils
- Copies of Charts A, B, and C
- Overhead copy of Chart A
- Overhead projector
- A copy of the Food Pyramid for each student
- Measuring spoons and cup (optional)

Background for Teachers

It is estimated Americans use more than 150 pounds of sugar and sweeteners, per person, per year. Too much sugar is undesirable because you get calories without nutrients.
The teacher may want to be prepared with a bowl of sugar, along with a measuring cup and spoons to demonstrate how much sugar is contained in some of the foods students eat (Chart C).
Carbohydrates, the body's main source of energy, are classified in two groups:
1.Complex carbohydrates (starches), are found in whole grains, cereals, breads, vegetables, pasta and rice.
2.Simple carbohydrates (sugars) are found in fruits, juices, milk, yogurt, and candy.
Nutrients are classified into six groups: carbohydrates, fats, proteins, vitamins, minerals, and water.

Student Prior Knowledge

Students should have a general knowledge of the Food Pyramid.
Students need to be aware of cereal labels and the nutritional information on the label.
Students should know good dental hygiene.

Intended Learning Outcomes

Students will understand the importance of moderation of sugar in their diet. They will read and evaluate food labels for sugar and nutritional contents. Students will also be able to discuss the difference between simple and complex carbohydrates and identify the foods that contain them.

Instructional Procedures

1. Distribute and discuss the Food Pyramid. Note that the word 'sugar' is not stated in any one category. Discuss why this is.
2. Using Chart A, have small groups of students place the names of the cereals in their correct place on the chart. Ask the groups to share their results. Record the information on the overhead copy of

Chart A.
Correct answers are:
a. Shredded Wheat 1%
b. Cheerios 2%
c. Wheaties 4%
d. Corn Flakes 7%
e. Rice Krispies 10%
f. Cap'n Crunch 43%
g. Fruit Loops 47%
h. Sugar Smacks 61%
3. Give each group one of the cereal labels. Show the class where to find the nutritional information on the label. Have the groups evaluate their answers.
4. Follow this activity with a class discussion on what sugar does to teeth and health in general. Do they brush their teeth after they eat their cereal or foods with high sugar content? What does moderation mean? Should we learn to moderate our sugar intake? What affect might that have on taste?
5. Hand out a copy of Chart B to each group. Have the groups complete the first column of the Chart with their cereal box label. Have the groups trade labels and continue charting information about the different cereals. Ask students to discuss their findings with the class.
6. After teaching the following information, follow up with a class discussion: Explain that simple sugars, found in fruits, juices, milk, yogurt, and candy, are broken down and digested very quickly. Complex carbohydrates such as cereal and bread, take longer to break down and digest. If you eat a high sugar content cereal for breakfast, you will be hungry more quickly than if you eat a cereal with complex carbohydrates. If you add one teaspoon (5 grams) of sugar to cereal, you will have increased the simple carbohydrates. Add a banana instead of the sugar. It will add fiber and nutrients not found in simple sugar.
7. Pass out and discuss Chart C. Inform students that the USDA has recommended no more than 10 teaspoons of added sugar per day. To get an idea of this amount, ask students to create a 5-day Sugar Menu on the back of their paper. The menu must consist of foods from the chart that, when added up, total 10 teaspoons of added sugar or less. Instruct students to use different foods for each of the five days.
8. Have each student list a few snacks of their choice from Chart C. Have the students total how much sugar is in each food. Make a graph of the foods and their sugar content. (They may want to see--using measuring spoons and the bowl of sugar--how much that really is.)
9. Have students brainstorm ways to lessen the amount of sugar in their diet.

Strategies for Diverse Learners

1. Create a recipe at school or home from one of the following: Kitchen Fun For Kids. Michael Jacobson, PH.D. and Laura Hill, R.D. Holt and Company. New York. ISBN 0-8050-1690-0 or Kids Cooking: A very Slightly Messy Manual. The editors of Klutz Press. Palo Alto, CA
2. Read Morning Milking. Linda Lowe Morris. Picture Book Studios. New York. 1991
3. Web site: www.kidshealth.org allows students to ask health questions and receive answers.

Extensions

1. Invite someone from the Dairy Council of Utah to come in and teach one of the many nutrition lessons specifically designed for the 5th grade. You can reach them at (801) 487-9976 in Salt Lake City.
2. You may wish to have the students complete Chart B as homework.
3. Have the students find out information about the six nutrients in foods. Have them write a short

report on nutrients.
4. Study the Science Core Curriculum, Standard 1. Evaluate how diet, heredity, and disease correlate with sugar intake.
5. Have students track their use of high sugar content foods for a week on paper. Have them analyze their eating habits and that of their family's with regards to sugar.
6. Have students research to find some of the other names for sugar (ie. sugar in fruit=fructose).
7. Use the lessons from the following web site:
http://www.kelloggs.com/nutrition/nutritioncamp/learning/label.html.

Rubrics

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Bibliography

www.kidshealth.org www.uen.org lesson #22 American Health Foundation Dairy Council of Utah Food Pyramid from the National Dairy Council
http://www.kelloggs.com/nutrition/nutritioncamp/learning/label.html
http://www.uen.org/utahlink/lp_res/nutri006.html

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