**Snack Wise**

**Time needed to teach lesson:** 30 to 45 minutes

**Oklahoma Priority Academic Student Skills**

**Grade 4**
- Writing/Grammar/Usage and Mechanics: 2.3
- Oral Language/Listening and Speaking: 1.1, 1.2, 3.1
- Science Processes and Inquiry: 1.2, 3.3, 4.2, 4.4
- Health and Safety Literacy: 2.4, 7.2

**Grade 5**
- Writing/Grammar/Usage and Mechanics: 2.4
- Oral Language/Listening and Speaking: 1.1, 1.2, 3.1
- Science Processes and Inquiry: 1.2, 3.1, 4.2, 4.3
- Health and Safety Literacy: 6.3, 7.4

**Grade 6**
- Writing/Grammar/Usage and Mechanics: 2.3
- Standards for Inquiry, Physical, Life, and Earth/Space Science: 4.2, 4.4
- Health and Safety Literacy: 6.3, 7.4

**Key Concept:** Wise snack choices contribute to good health. Nutrition Facts on food labels can help compare choices and choose healthy snacks.

**Goal**
Students will make healthful snack choices.

**Objective**
- Students will use information on the Nutrition Facts label to compare food items and make healthy snack choices.

**Sources**
Materials needed

- Long rope for snack line – about the width of a classroom.
- Nutrition Facts poster

Sources for Nutrition Facts posters:
Examine the Facts at www.foodandhealth.com
Read Food Labels at www.learningzoneexpress.com

- “Be Snack Wise” handout for each student.
- Two brown paper bags—one containing potato chips and the other pretzels. Prepare the bags ahead, preferably one day ahead, so that the fat residue has time to be absorbed by the brown paper.
- snack food packages with Nutrition Facts and ingredient label.
  Examples include:
  - beef jerky and Slim Jim®,
  - fruit roll-up® and dried apricots,
  - regular size candy bar and king size candy bar,
  - ice cream and frozen yogurt,
  - regular chips and baked chips,
  - animal crackers and cookies,
  - sugar frosted Cheerios® and regular Cheerios®,
  - string cheese and Cheetoes®
- “Solving Snack Dilemmas” worksheet. This can be printed on the back of the ‘Be Snack Wise’ handout.

Background Information

Americans snack nearly as often as they eat regular meals. On any given day, nearly 84% of U.S. consumers have a snack, a percentage comparable to those who eat breakfast (75%), lunch (88%), and dinner (96%). Between 1978 and 1996, snacking increased from less than once per day to 1.6 times per day. The energy consumed in snacks accounted for 23% of the total energy consumption. High-fat desserts, high-fat salty snacks and sweetened beverages were the main energy source of snack calories.

Snacking is okay! When wisely chosen snacks can help adolescents (and adults) get enough of the foods and nutrients needed for growth and development. To get the most nutrients with fewer calories eat snacks that include whole-grains, fruits, vegetables, low-fat dairy foods and lean proteins.

Whether or not a food fits into an individual’s diet depends on the other foods they choose to eat. The column on the Nutrition Facts label headed Percent Daily Value (%DV) provides quick information for determining if a food is high or low in the nutrients listed (based on a 2,000 calorie diet). If the % DV for a nutrient is 5% or less, the food is considered low in that nutrient. If the % DV is 20% or more, the food is high in the nutrient. Use the Nutrition Facts to choose foods that are high (≥ 20%) in dietary fiber, vitamins A & C, and calcium and iron. For saturated fat and sodium, the goal is to choose foods that provide less of these nutrients (≤ 5%).

Trans fats are primarily found in commercially-prepared foods that are prepared with partially hydrogenated vegetable oils. There is no % DV for trans fats because it is unclear if there is a safe level of intake. However,
food labels do list the number of grams of trans fat per serving. The 2005 Dietary Guidelines for Americans recommend trans fat intake be kept as low as possible. Food products made with partially hydrogenated oils can claim “0 grams trans fat” if the product contains less than .5 grams of trans fat per serving. If snack choices consist of highly processed, commercially-prepared, baked and fried foods, these small amounts can add up. Trans fats are as detrimental, if not worse, for health as saturated fat. Use the ingredient lists to look for partially hydrogenated vegetable oil, soybean oil, cottonseed oil or shortening and find alternative products.

As with trans fat, there is no Percent DV for sugar. No daily reference value has been established for sugars because no recommendations have been made for the total amount to eat in a day. The sugars listed on the Nutrition Facts label include naturally-occurring sugars (like those in fruit and milk) as well as those added to a food or drink. To know how much of the sugar is added, look at the ingredient list. Since ingredients are listed in descending order of quantity by weight, we can get a good idea of the quantity of added sugar. Sugars come in many forms and will be listed as sugar (sucrose), high fructose corn syrup, honey, molasses, corn syrup, fructose, dextrose, and maltose. When sugar is listed as one of the first three ingredients, the food item contains a high amount of sugar.

There are no “bad” foods that should never be eaten. Restricting foods from our diet can create cravings and over consumption. When choosing foods that have some added fat and sugar choose smaller portions, share with a friend or eat them less often. Eliminate “mindless eating” during sedentary activities by putting the snack on a plate rather than eating out of the package. If you snack when bored, lonely or stressed, find an alternative activity: go for a walk, call a friend, or clean a room.

Lesson Procedure
The purpose of the anchor activity is to increase students’ awareness of why they snack and the choices they make.

Part 1 – Anchor
1. Ask students to stand if they had a snack today, yesterday, this week, this month. Pause between each time period, continue until everyone is standing. When everyone is standing start the activity.
2. Stretch the rope across the room. Explain to students the rope (or an imaginary line) is a scale to measure differences in attitudes related to snacking.
   a. One end represents “I always choose snacks for my good health.”
   b. The opposite end represents “I eat what I like. I don’t think about healthful snacking.”
3. Ask students to move to a point on the line that represents their attitude about snacking. Explain they may be somewhere in between. They will need to talk to classmates to decide where they fit.
4. As a leader, put yourself on the snack line too.
5. Ask for volunteers to share their thoughts about their reasons for their location on the line. Challenge their thinking by asking “How would you describe your place on the snack line? Why did you put
yourself there? What are your snack choices? When and where do you snack? Who do you snack with? etc.”

Optional as time allows:
1. Have students rearrange themselves on the snack line using different reasons and situations for snacking.
   a. I always snack when I’m stressed./I never snack when I’m stressed.
   b. I always snack when I’m bored./I never snack when I’m bored.
   c. I always eat the same snacks my friends do./I never eat the same snacks my friends do.

Part 2 – Add
The purpose of the activity is to build students’ skills in using information provided on the Nutrition Facts Label to make healthful snack choices.
1. Display a Nutrition Facts poster and provide each student with a copy of the Be Snack Wise handout.
2. Explain that healthful snacks are low in added fat, sugar and sodium, and are a good source of at least one nutrient, such as protein, vitamins A or C, iron and calcium. It is also important to eat appropriate snack portions. As you discuss serving size and each nutrient point to it’s location on the Nutrition Facts label.
3. Discuss use of the Percent Daily Value (%DV) on the Nutrition Facts label as a tool to help choose healthy snacks. Use the Nutrition Facts poster and student handout.
4. Show students the brown paper bags containing potato chips in one and pretzels in the other. Ask them to make observations and predict reasons for the difference between the two bags. Predications can be confirmed by evaluating the %DV on the chips and pretzels packages.
   Alternate activity: Conduct Part 1 of ‘Finding the Fat’ experiment. Ask the classroom teacher to follow-up with Part 2 and share results at the next class meeting.

Part 3 – Apply
The purpose of the activity is to provide opportunity for students to practice using information on the Nutrition Facts label to make an informed decision when choosing a snack.
1. Ask students to divide into small groups of 2 or 3 students per group.
2. Distribute the pairs of snack food packages that include the Nutrition Facts labels and ingredient lists.
3. Ask each group to select a reporter and share with the class which of the two snack options is the better choice and why it is better. Use the following points to lead a brief discussion for each pair of snacks.
   Key points:
   o Beef jerky & Slim Jim - good snack for protein; difference in fat content; both high in sodium.
   o Fruit roll-up© and dried apricots – difference in sugar content; long list of ingredients in roll-up.
   o regular size candy bar and King size candy bar – serving size, fat and calorie differences.
   o ice cream and frozen yogurt – serving size, fat difference.
regular chips, baked chips and pretzels – serving size; difference in fat content.
o  animal crackers and cookies - animal crackers are a good snack choice compared to cookies, but watch serving size.

Part 4 – Away
The purpose of the activity is to encourage students to advocate for more healthful food and beverage choices in their school and community environments.
1. Ask students to write a letter in response to one of the following dilemmas or a similar situation they are aware of in their community. If time does not allow, leave the activity with the classroom teacher to use as a related classroom activity.
   a. Your team (sports, dance, band, etc.) needs to raise money for new uniforms. Some people want to sell candy bars, but you know that most candy bars are high in added fat and sugar and have very little beneficial nutrients. Write a letter to the chair of the fundraising committee to explain why candy is not a good idea. Give some healthy alternatives for consideration. The alternatives can be food or non-food items.
   b. Many families use the community center as an after school program for their children. Parents have asked for the vending machine to offer healthy food and drink choices. Some members of the Board of Directors think people should be able to make their own choices and argue the vending machine earns a lot of money for the community center. Write a letter to the Board of Directors explaining why you support a healthy vending machine policy. Include examples of some healthy snacks you would eat if they were available.

Additional Resources:

For more information about understanding and using the Nutrition Facts label on food products
http://www.cfsan.fda.gov/~dms/foodlab.html

For information about Qualified Health Claims on food product labels
http://www.cfsan.fda.gov/~dms/lab-qhc.htm
Be Snack Wise!

To make healthful snack choices read the Nutrition Facts label on the food package. Use the following step-by-step process to determine if a food is a healthy choice.

1. **Collect** information from the Nutrition Facts label.

2. **Consider** the nutrients. Healthy snacks choices are
   a. low in saturated fat and have little or no trans fat (5% DV or less is low);
   b. a good source of at least one vitamin or mineral (20% DV or more is high); and
   c. low in added sugars.

3. **Compare** choices.

4. **Decide** what to choose. Which choice gives you plenty of nutrients without too much fat and sugar?

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**Banana**

**Nutrition Facts**

<table>
<thead>
<tr>
<th>Serving Size: One medium (114 g)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount Per Serving</strong></td>
</tr>
<tr>
<td>Calories 100</td>
</tr>
<tr>
<td>Calories from Fat 0</td>
</tr>
<tr>
<td>% Daily Value*</td>
</tr>
<tr>
<td>Total Fat 0.5g 1%</td>
</tr>
<tr>
<td>Saturated Fat 0g 1%</td>
</tr>
<tr>
<td>Trans Fat 0g</td>
</tr>
<tr>
<td>Cholesterol 0mg 0%</td>
</tr>
<tr>
<td>Sodium 0mg 0%</td>
</tr>
<tr>
<td>Total Carbohydrate 27g 9%</td>
</tr>
<tr>
<td>Dietary Fiber 2g 7%</td>
</tr>
<tr>
<td>Sugars 19g</td>
</tr>
<tr>
<td>Protein 1g</td>
</tr>
<tr>
<td>Vitamin A 0% * 0%</td>
</tr>
<tr>
<td>Vitamin C 15% * 1%</td>
</tr>
<tr>
<td>Calcium 0% * 0%</td>
</tr>
</tbody>
</table>

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

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1. Look at the serving size, servings per container and calories. Balance calories with physical activity.

2. Limit fat, saturated fat, trans fat, cholesterol, and sodium. Look for foods with 5% or less.

3. Get enough fiber, vitamin A, vitamin C, iron, or calcium. Look for foods with 20% or more.

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Percent Daily Value – how a food fits into your daily food plan.

- ✔ 5% or less is low
- ✔ 20% or more is high

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Calories per gram:

- Fat 9
- Carbohydrate 4
- Protein 4
Solving Snack Dilemmas

Write a letter in response to one of the following dilemmas or to one you are aware of in your community. Give the person information that supports your case and give some healthy snack alternatives.

Here are some tips for getting started.
✓ Include a return address and your contact information. The people you are writing to may want additional information.
✓ If you don’t know the name of the person you are writing to use their title. For example, Dear Chairman of the Board.
✓ State why you are writing the letter.
✓ State why you feel there is a problem and explain why you feel the way you do.
✓ Provide alternatives for consideration.
✓ Close with a salutation. For example, Sincerely, (your name).

**Dilemma 1**
Your team (sports, dance, band, etc.) needs to raise money for new uniforms. Some people want to sell candy bars, but you know that most candy bars are high in added fat and sugar and have very little beneficial nutrients. Write a letter to the chair of the fundraising committee to explain why candy is not a good idea. Give some healthy alternatives for consideration. The alternatives can be food or non-food items.

**Dilemma 2**
Many families use the community center as an after school program for their children. Parents have asked for the vending machine to offer healthy food and drink choices. Some members of the Board of Directors think people should be able to make their own choices and argue the vending machine earns a lot of money for the community center. Write a letter to the Board of Directors explaining why you support a healthy vending machine policy. Include examples of some healthy snacks you would eat if they were available.
Finding the Fat

What you need:
- Brown paper grocery bags or craft paper, cut into 6 inch squares.
- Different foods to test, like French fries, potato chips, dried fruit, peanuts, cheese, apple, banana, hot dog, and butter.
- Scissors.

What to do:

Part 1:
1. Rub each piece of food onto a separate paper bag square. Count to twenty while you rub so that you test each food for the same amount of time. Be sure to label the squares so you remember which food you rubbed on each one.
2. Record which foods you predict will have the most fat?
3. Leave the squares uncovered overnight.

Part 2:
1. The next day observe the squares. The foods that left the dark brown spots are the fattiest foods. Where your predictions correct? Which foods contain more fat? Which had less fat?

What happens?
Fat from the food rubs off onto the paper bag leaving a dark brown wet mark. Foods with higher fat leave a larger or darker mark.
Teacher Resource: Related Classroom Activities

Oklahoma Ag in the Classroom activities corresponding to the Snack Wise lesson.

Share this information with the classroom teacher. The Ag in the Classroom lessons will extend the nutrition message presented in the Healthy Oklahoma Youth lesson. The lessons correspond with grade appropriate Oklahoma Priority Academic Student Skills (PASS). Books can be made available to students either in the library or in the classroom.

Food Label Relay
Available at http://www.clover.okstate.edu/fourh/health/foodlabel.pdf
Skills: Math and Language Arts for Grades 4 and 5.
Objective: Students will use math skills while learning about good nutrition and fitness.

Read Before You Eat
Available at http://www.clover.okstate.edu/fourh/health/labels.pdf
Objective: Students learn to understand the nutrition label on different foods to make healthier food choices.
Skills: Health, Language Arts and Math for Grades 4 and 5.

How to Pick the Best
Available at http://www.clover.okstate.edu/fourh/aitc/lessons/intermed/buyveg.pdf
Objective: Students will learn how to select the best fresh produce and have a produce judging contest.

Fruit or Vegetable?
Available at http://www.clover.okstate.edu/fourh/aitc/lessons/upper/fruitveg.pdf
Skills: Science and Language Arts for Grade 6.
Objective: Students explore the difference between fruits and vegetables from different perspectives and develop their own definitions.

Extra Reading:

For more information, contact your local County Extension Educator: