Sodium
Cut the Salt!
Grade: 5-8

I. Lesson Objectives:
   A. Students will explain the health benefits of reducing sodium in their diets.
   B. Students will identify common sources of sodium in foods.
   C. Students will state the recommended amounts of sodium.
   D. Students will read food labels to choose lower-sodium products.

II. Behavior Outcomes:
   A. Limit foods high in fat, sodium and added sugar.

III. Pennsylvania Educational Standards:
   A. 2.5 Mathematical Problem Solving and Communication
   B. 10.1 Concepts of Health
   C. 10.2 Healthful Living
   D. 11.3 Food Science and Nutrition

IV. Materials:
   A. Handouts: “APPetite for Health” workbook (pages 28-31) OR “Salt and Sodium-10 tips to help you cut back” handout, “Why Should You Cut the Salt?”, “Cut the Salt” worksheets
   B. The “Salt Case” (eNASCO), “How Much Salt” test tubes, or another display showing the amount of salt in various foods.
   C. Laminated High and Low Sodium food cards
   D. Laminated food labels from various food products such as chips, bread, granola bars, soup, noodles, etc. (for “Cut the Salt” worksheet with 7th & 8th grade)
   E. Hand Wipes
   F. Food Tasting and any necessary supplies
   G. Reinforcement that conveys the appropriate nutrition message
   H. Ten Tips Fact Sheet: Salt and Sodium (available from: http://choosemyplate.gov/healthy-eating-tips/ten-tips.html) or other appropriate fact sheet

V. Procedure: Text in italics are instructions for the presenter, non-italicized text is the suggested script.
   A. Introductory:
      1. Lesson Introduction
a. **Introduce yourself and the nutrition education program/organization presenting the lesson.**

b. **Review the previous lesson.**

c. **Distribute student workbooks, if using, and turn to page 28. Review the title of today’s lesson/APP, “Cut the Salt”, and the “Highlights” box. Explain that today’s topic will be sodium. Students will learn that sodium is an essential nutrient, but most Americans consume too much. Students will also learn about sources of sodium and the health benefits of reducing sodium consumption.**

2. **Icebreaker: High and Low Sodium Food Cards**

   a. **Instruct the students:** I will be showing you pictures of different foods. First, I want you to identify the food and the food group for that food item. Then, I want you to tell me whether the food is HIGH or LOW in sodium.

   b. **The instructor may hang the cards that say “HIGH in Sodium” and “LOW in Sodium” on the board or write both categories on the board. The instructor may distribute the cards to different students and invite the students to come up and post their food where they think it belongs, or the instructor can hold each food card up and let the class state what the food is, what food group it belongs in, and whether or not it is a HIGH SODIUM or LOW SODIUM food.

   c. **High Sodium Foods:** Chips, Bacon, Canned Soup, Hot Dog, Pickles, Ketchup, Fast Food

   d. **Low Sodium Foods:** Fish, Milk, Fruit, Vegetables, Pasta, Eggs, Fresh Roasted Turkey

3. **Alternate Icebreaker:** Put the “Salt Case” display, “How Much Salt” test tubes, or another display showing the amount of sodium in various foods, out for students to see. Ask students to guess which foods have the most sodium. Show students the display/test tubes to see the different amounts of sodium in common foods.

B. **Developmental:**

1. **Refer to page 28 in workbook, “Cut the Salt”. If using workbooks, have students read bullet points out loud and discuss each point, or discuss the following points.**

2. **Ask students:** “What is sodium?” **Solicit responses. Have a student read the first bullet point.**

   a. Sodium is a mineral. It is an essential nutrient, which means that our bodies need to have a certain amount in order to be healthy. **Explain to students:** Minerals are elements that come from the soil and water and are absorbed by plants or eaten by animals. It is an essential nutrient that we must have, but….

   b. **Have a student read the next bullet point.** Most Americans, however, consume more sodium than they need. **Reinforce with students:** Sodium is essential, but we can get too much and most Americans do get too much.

3. **Ask the students:** Does anyone know what important jobs sodium has in the body? **Solicit responses. Have a student read the next bullet point.** Sodium helps maintain water balance in the body and aids in the function of nerve impulses and muscle contractions. **Tell the students:** Sodium is important to help the body maintain the right amount of fluid. It also helps with muscle contractions. **Have students “make a muscle” by bending their arm and making a fist. Explain that the muscles of the upper arm are contracting and sodium is helping to make that happen.**
4. Ask the students: Does anyone play a sport or engage in physical activity? Encourage students to raise their hands. Ask some of the students what type of activity they do and if they get sweaty while doing it. After getting some responses, have a student read the next bullet point: Sodium is lost through sweat, which can be a concern for athletes, but it is easy to replenish sodium at the next meal. Reinforce with students: We may get sweaty when we are playing basketball or soccer (or reiterate sports that the students mentioned) but for most of us, we get the sodium we need at the next meal we eat.

5. Ask the students: Does anyone know what might happen if we get too much sodium? Solicit responses. The answer we are looking for is “High Blood Pressure”. Once a student gives this answer or if no student gives this answer, ask the class: Has anyone (or everyone) ever heard of High Blood Pressure? What does it mean? Solicit responses, and then explain: We need our hearts to pump blood to different parts of our body in order to stay alive. Blood is pumped from our heart and through arteries (think of water flowing through a water hose). If our heart pumps too much blood and the arteries become narrow, there is more pressure on the walls of the artery (think of squeezing a hose and making it difficult for water to flow through). If this occurs long-term, it may eventually cause health problems.
   a. Have a student read the next bullet point: People who consume more sodium tend to have higher blood pressure. Keeping blood pressure in the normal range lowers a person’s risk of cardiovascular disease, congestive heart failure, kidney disease, and stroke. Reinforce with students: So we need sodium because it is an essential nutrient, but we don’t need too much. Too much sodium might lead to health problems later in life.

6. Have a student read the next bullet point: The average American consumes 3,400 milligrams of sodium each day, which is significantly more than the recommended 2,300 milligrams.
   a. 2,300 milligrams is about 1 teaspoon of table salt. For people who have certain risk factors for high blood pressure, the recommendation is even lower at 1,500 mg sodium per day.
   b. Ask the students: What is a “risk factor”? Solicit responses: A risk factor is a characteristic a person has that increases their chances of getting a particular disease or condition. People who have risk factors for high blood pressure include those who are 51 years of age and older, African Americans, people who already have high blood pressure, and people with diabetes or kidney disease. Anyone with one or more of these risk factors should consume no more than 1,500 milligrams of sodium in a day.

7. Ask students to open to page 29 in their workbooks or distribute copies of “Salt and Sodium: 10 tips to help you cut back” handout. Call on a different student to read each tip, and incorporate the following points to enhance discussion.
   1) Think Fresh – Explain the difference between fresh and processed foods. Fresh food is food that has not been processed in any way. Examples include fresh fruits and vegetables and fresh meats. Processed food is food that has been prepared in some way. Canned and frozen foods, cereals, breads, deli meats, and sausage are examples of processed foods. Fresh foods are naturally low in
sodium. The more processed a food item, the higher it usually is in sodium. 
Referral back to the examples given in the tip.

2) Enjoy home-prepared foods – Make sure students understand the term “home-prepared foods”. Making fresh foods at home allows us to control the amount of sodium we add to a food.

3) Fill up on veggies and fruits – They are naturally low in sodium – Remind students that frozen fruits and vegetables are minimally processed without extra sodium and are just as good as fresh versions.

4) Choose dairy and protein foods that are lower in sodium – Tell students that cheese is a great dairy product, but for people trying to watch their sodium intake, cheese should be included in moderation.

5) Adjust your taste buds – Tell students that our taste preferences can change. We can modify our desire for salt by gradually decreasing the amount of salt that we use and the amount of salty foods that we eat.

6) Skip the salt – Tell students to experiment with other herbs and spices to enhance flavor.

7) Read the label – Remind students that the amount of sodium in a serving of a food is listed on the nutrition facts label for that food. When controlling our sodium intake, we want to choose foods with lower amounts of sodium, and using foods labeled as “low sodium”, “reduced sodium” or “no added salt” can help control intake.

8) Ask for low-sodium foods when you eat out – Let students know that it is acceptable to ask for foods to be prepared without added salt if possible.

9) Pay attention to condiments – Ask students if anyone likes ketchup on their French fries. Tell students that the fries we get at restaurants are often salted already, and when we add ketchup, that contains more salt. Limiting the condiments and asking for unsalted fries can reduce our sodium intake.

10) Boost your potassium intake – Tell the students: While reducing sodium consumption is important for healthy blood pressure, so is increasing potassium consumption. Sodium and potassium are two different minerals in our bodies. Our blood pressure has the best chance of staying in a healthy range if these two minerals are in the right balance in our bodies. Although most of us eat too much sodium, we also tend to eat too little potassium. Great sources of potassium are fruits, vegetables, and low-fat/skim milk. Eat lots of these to help keep your blood pressure healthy.

8. **Activity:** Why Should You Cut the Salt?
   a. Ask students to turn to page 30 in their workbook or distribute, “Why Should You Cut the Salt” worksheet.
      i. For 5th and 6th Grade: Complete the worksheet as a class, reading each question then answering together. Tell students that they may refer back to page 29 or the 10 tips handout if needed.
      ii. For 7th and 8th Grade: Give students about 10 minutes to work alone or in pairs to try to answer the questions on the worksheet. Tell them that they may use page 29, or the 10 tips handout to help them find answers. Review answers and discuss as needed.

9. **Activity:** Cut the Salt
a. Ask students to turn to page 31 in their workbooks or distribute “Cut the Salt” worksheet.
   i. For 5th and 6th Grade: Have students answer questions #1-4 as a class using the same food label (for example, the sample food label on page 14 of the workbook or one laminated food label from a food product).
   ii. For 7th and 8th Grade:
      a) Distribute laminated food labels to groups or pairs of students. Ask the students to answer questions #1-4 for their food product, and then compare the results as a class.
      b) For question #5, have one student from each group come up to the front of the room. Have the students line themselves up based on the sodium content of their food products from highest to lowest. Compare the results as a class.
      c) For question #6, discuss with the students: What are some products you were surprised to see ranked higher or lower? For example, some cereals or baked snack goods are higher than other foods; does this make them less healthy? Explain that just because the sodium level might be slightly higher, it is important to examine the ENTIRE Nutrition Facts label. When selecting foods, it should be about looking at the whole picture.

C. Conclusion:
   1. Distribute hand wipes.
   2. Provide each student with a food tasting and encourage him or her to make small changes in his or her diet now. Explain why this food is a healthy option.
   3. Distribute the reinforcement, read the message and/or explain the reason why they are receiving a reinforcement.
   4. Distribute Ten Tips Fact Sheet (or other appropriate fact sheet), if not already distributed, and encourage students to share it with their families.
   5. Thank the students for their participation and answer any questions the students have.
Why should you cut the salt?

Let’s find out why:

1. What is sodium?

2. How can eating foods high in sodium affect your health?

3. How much sodium should we eat daily?

4. Name three foods that are high in sodium.

5. Name three foods that are low in sodium.

6. List three ways to reduce sodium in your diet.

7. What is potassium and where is it found?
**Cut the Salt!**

**Directions:** Answer the following questions based on the Nutrition Facts Label from a packaged food product.

1. How many total milligrams (mg) of sodium are in one serving?

2. How do I find out how many total milligrams (mg) of sodium are in the entire package (or box)?
   
   __________ x ___________ = ___________ mg

3. What is the %DV for sodium in one serving? _______________

4. What is the %DV for sodium in the entire package? _______________

5. Compare the results with your classmates. Below in the space provided, rank the products from the one with the least amount of sodium to the highest amount of sodium.

   Highest

   __________

   Lowest

6. What did you find surprising about the products? Did you think some of the products would be ranked differently than others?