Many young people now acknowledge that eating too much junk food is not good for their health. They realize that soda, chips, and candy have little nutritional value. They know that these foods have too much sugar, salt, fat, and refined starches. Yet they continue to eat junk food regularly. Many also admit that they do not incorporate enough exercise into their daily routines.

There is a higher incidence of type 2 diabetes among youth in recent years. This has been linked to rising obesity rates. Diabetes is a disease in which either the body’s insulin levels are too low or the body does not respond to the insulin level that is present. The digestive system breaks down food to make glucose, which provides the body’s energy. Insulin is an important hormone that helps the body utilize glucose. Insulin is needed to transport glucose to muscles and other tissues of the body.

Despite the link between diabetes and weight, some think that schools should keep selling soda and snacks. They argue that students should have a choice about what they eat. Selling snacks also generates money for schools. Other people think that schools make junk food too accessible. They believe that schools should cooperate with health professionals on initiatives aimed at changing kids’ eating and fitness habits. For example, schools could fill snack machines with more nutritious foods.

Questions for Classroom Discussion:
- What are some reasons that eating junk food is bad for students’ health?
- What is diabetes? Why has there been a higher incidence of this disease among young people in recent years?
- Why do some kids think schools should continue to sell junk food?
- Why do some people support initiatives aimed at helping kids eat healthier foods in school?
- Should schools sell junk food to kids?

Should schools sell the unhealthy snacks students want, or do they have a responsibility to promote healthy habits?
USE THE FOCUS WORDS

acknowledge (verb) to recognize; to accept

Sample Sentence: My teacher finally acknowledged that my way of solving the math problem was just as good as hers.

Turn and Talk: Talk about a time when you acknowledged that you made a mistake.

incidence (noun) occurrence

Sample Sentence: There has been a higher incidence of type 2 diabetes among youth in recent years.

Turn and Talk: What factors increase the incidence of diabetes in humans?

incorporate (verb) to include

Sample Sentence: Yasmin incorporated more fruits and vegetables into her diet.

Turn and Talk: How do you incorporate exercise into your daily activities?

initiative (noun) plan or strategy to solve a problem

Sample Sentence: The principal’s new initiative gives laptops to every student as a way to increase student achievement.

Turn and Talk: Do you think initiatives to promote technology in the classroom help students do better in school?

transport (verb) to carry from one place to another

Sample Sentence: Blood transports oxygen from the lungs to cells all over the body.

Turn and Talk: What things do you regularly transport from school to home?
DO THE MATH

As the incidence of type 2 diabetes climbs, researchers are doing more and more studies on good nutrition. Food companies try to incorporate findings from these studies so that consumers will continue to buy their products.

Frito-Lay is a company that makes Doritos, Cheetos, and other snack foods. These snacks are tasty, cheap, and easy to transport. Frito-Lay acknowledges that many of its foods are high in fat and sodium. Over the years, it has sponsored different initiatives to make its food healthier. One fat-cutting initiative led the company to develop Baked Lay’s potato chips.

Here is some nutritional information about Baked Lay’s chips, Classic Lay’s chips, and a fresh apple.

<table>
<thead>
<tr>
<th></th>
<th>Lay’s Classic Potato Chips</th>
<th>Lay’s Baked Potato Chips</th>
<th>Apple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving Size</td>
<td>1 oz.</td>
<td>1 oz.</td>
<td>1</td>
</tr>
<tr>
<td>Calories</td>
<td>160</td>
<td>120</td>
<td>100</td>
</tr>
<tr>
<td>Fat</td>
<td>10 g</td>
<td>2 g</td>
<td>0 g</td>
</tr>
<tr>
<td>Sodium</td>
<td>170 mg</td>
<td>135 mg</td>
<td>2 mg</td>
</tr>
</tbody>
</table>

Option 1: The American Heart Association recommends that Americans eat a maximum of 1,500 mg of sodium each day. What percentage of a person’s daily recommended sodium intake is in one bag of Lay’s Baked Potato Chips?

A. 6%
B. 9%
C. 11%
D. 12%

Option 2: A large apple weighs about 8 ounces. There are 16 ounces in a pound. Based on this information, how many pounds of apples would you have to eat to equal the sodium in one serving of Baked Lay’s?

You would have to eat 33.75 pounds of large apples. 135mg/2mg = 67.5 apples. Each large apple is 8 ounces (half a pound) so 67.5/2 = 33.75 pounds.

Discussion Question: People like bagged snacks because they are cheap, easy to store, and easy to transport. However, the high incidence of illnesses caused by unhealthy diets has become a national problem. Many different health initiatives call for kids to snack on fresh fruits and vegetables. Schools acknowledge that fresh fruits and vegetables are healthy, but they are expensive. How could your school encourage all students to eat fresh fruit each day? Incorporate what you know about day-to-day life in the classroom and the lunchroom. What would work best for your school?
“Given the incidence of obesity among young people, I don’t understand why our school sells junk food to students,” says Brianna.

“The vending machines raise money to help maintain the athletic facilities, transport teams to games, and other stuff like that,” says Anthony. “So while I acknowledge that junk food can be unhealthy, I think there can be an indirect benefit to students’ health when the sale of junk food helps fund school athletics.”

“Seriously?” says Brianna. “That makes about as much sense as selling fire-starting licenses to arsonists in order to fund the fire department!”

Anthony laughs. “Well,” he says, “it’s not like anyone is forcing students to buy and eat junk food. The nutritional information is printed right there on the packaging, so people know what they’re getting.”

“Fair enough,” says Brianna, “except that most people probably don’t read that stuff, and wouldn’t understand it if they did.”

“People should take more initiative to learn about what they’re eating and take care of their own health,” says Anthony. “I would rather incorporate more nutrition education into our science class than have more rules about how the school is allowed to raise money for sports and other good programs.”

“Maybe you two could help the class learn to interpret the nutrition labels on food,” says Mr. Seemy.

Brianna and Anthony brought in this portion of a nutrition label from a family-size bag of Lay’s Classic Potato Chips, and posed some questions:

These nutritional statistics are for a serving of 1 ounce of potato chips—about 15 chips. If you ate 2 ounces of chips, how many calories would you consume?

- 160 x 2 = 320 calories

Fat contains about 9 calories per gram. How many calories from fat are in one serving?

- 90 calories from fat

Carbohydrates contain about 4 calories per gram. How many calories from carbohydrates are in one serving?

- 15 x 4 = 60 calories from carbohydrates

Protein contains about 4 calories per gram. How many calories from protein are in one serving?

- 2 x 4 = 8 calories from protein

What do the approximate number of calories in fat, carbohydrates, and protein add up to? Is this close to the total calories listed for one serving?

- 90 calories from fat
- 1 x 4 = 4 calories from carbohydrates
- 2 x 4 = 8 calories from protein

Approximately 56% of the calories come from fat.

Twenty servings of these potato chips would supply 100% of the daily recommended fiber. Would this be a good way to get all your fiber? Why or why not?

No. You would get more than the daily recommended intake of fat, sodium, etc.
DEBATE THE ISSUE

Pick one of these positions (or create your own).

A  
☐ Schools should not allow junk food to be sold on campus.

OR

B  
☐ Schools should allow junk food to be sold on campus.

OR

CREATE YOUR OWN

☐ __________________________

☐ __________________________

☐ __________________________

☑ Jot down a few notes on how to support your position during a discussion or debate.

☐ ________________________________________________________________

☐ ________________________________________________________________

☐ ________________________________________________________________

☐ ________________________________________________________________

☐ ________________________________________________________________

☐ ________________________________________________________________

Be a strong participant by using phrases like these:

“Can you show me evidence in the text that...”

“You make a good point, but have you considered...”

“I believe that...”

“I agree with you, but...”
TAKE A STAND

Support your position with clear reasons and specific examples. Try to use relevant words from the Word Generation list in your response.

acknowledge  |  incidence  |  incorporate  |  initiative  |  transport

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