

Food for Thought

Grade Band: 3-5

Student Objectives:

- Understand how calories are used for energy
- Investigate how our food choices are influenced by social and cultural norms, values, settings, and personal preferences
- Create an interactive presentation to share nutrition information with classmates and others in the community

Materials:

- Clay or material that can be shaped into an object
- Student Activity Sheet: What's Your Influence? (one per student)
- Photos, images, or models of three different types of foods (or the foods themselves)
- Food for Thought presentation rubric- (one per student)

Suggested Time Frame: 2-3 class periods *(based on 45 minute intervals)*

Instant Expert:

According to the Centers for Disease Control and Prevention (CDC), **health literacy** is defined as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make healthy choices, to think about and practice health-enhancing skills, to say kind words, and to learn about feelings and how to express them.

An important foundation of helping children become health literate is teaching them about **wellness**. Wellness is more than just being healthy. It is the active process of becoming aware of and making choices toward a healthy and fulfilling life.

In the first set of lessons, students learned about different types of wellness. One of those was **physical wellness**. Physical wellness is wellness related to our bodies. This includes taking care of our bodies, getting physical activity, having good personal hygiene, having healthy eating patterns and nutrient intake, and being safe.

In this lesson, we will focus on the physical wellness subcomponent of nutrition. Students will focus on three important questions:

1. Why do we eat?
2. Who and what influences our eating choices?
3. How can we influence others to make healthy eating choices?

Knowing why we eat is important in understanding how food is used as fuel in the body. Calories are the fuel or energy burned in the body to support physical activity and basic body processes. Human beings need energy to survive – to breathe, move, pump blood, and think – and they get this energy from calories in foods and beverages. When a food or beverage contains 100 calories, that is a way of describing how much energy our body gets from eating or drinking it. How many calories we need each day depends on many things: our gender, height, weight, age, and activity level among them. The average 8-11-year old needs between 1,600 and 2,200 calories each day. Energy is then used (burned) by the activities we do each day and the basic body processes we need to survive. These include sleeping, thinking, pumping blood, etc.

Calories are a measurement of the potential energy contained in what we eat or drink. Calories fuel the body just like gasoline fuels a car. Three nutrients – carbohydrate, protein and fat – contain calories. When we eat or drink something that contains carbohydrates, protein, or fat, the body breaks down the nutrients to release energy. That energy can then be used to do all the physical activities we want to do. Even when we're at rest, our body needs energy for all its "hidden" functions or body operations, such as breathing, circulating blood, and growing and repairing cells. Without energy, we could not survive.

Food choices can be influenced by our culture, family, friends, school, media, personal preferences, and society. Events and emotions can also influence food choices. And accessibility to food can play a significant role in determining food choices in some areas and with some socioeconomic groups. Teaching children about what can influence food choices can lead to greater awareness and potentially greater control as they get older.

In this lesson, students will analyze what influences their food choices and explore ways that they can positively influence other people's food choices. Advocacy is important strand in health education. After all, everyone has a role in helping to create and support healthy eating patterns for all. Children are no exception.

Note: As always, you will want to be sensitive to individual students' unique situations and follow your school or district's policy when it comes to the collection of personal information related to minors.

Additional Resources

- Learning about Calories. <http://kidshealth.org/en/kids/calorie.html>
- U.S. Food and Drug Administration- Nutrition Facts Label: Read the Label Youth Outreach Campaign
<http://www.fda.gov/Food/IngredientsPackagingLabeling/LabelingNutrition/ucm281746.htm>
- U.S. Food and Drug Administration “Make Your Calories Count – Use the Nutrition Facts Label” <http://www.accessdata.fda.gov/videos/CFSAN/HWM/hwmintro.cfm>
- The Centers for Disease Control and Prevention BAM! Body and Mind: Under the Microscope, The Nutrition Facts Label
<http://www.cdc.gov/bam/nutrition/microscope.html>
- Super Tracker website from the USDA
<https://www.supertracker.usda.gov/foodtracker.aspx>
- 2015-2020 Dietary Guidelines for Americans USDA
<http://health.gov/dietaryguidelines/2015/guidelines/executive-summary/>
- USDA Choose My Plate <http://www.choosemyplate.gov>

Procedure:

Session 1: Why do we eat?

1. As students enter the class, have them conduct a series of physical activities at different activity levels for 30 second spurts. These activities could include walking around the room, doing jumping jacks, dancing, stretching, singing, answering a question, or even reading.
2. Challenge students to name one thing they needed in order to do all of those activities. You may need to give them a hint that the word starts with an “e” and ends with a “y.” The word is “energy.” Write the word “energy” on the board and invite students to share something that we need energy to do. Explain that we need energy to survive. In addition to needing energy for physical activities, humans also need energy to breathe, move, think and pump our blood.
3. Ask: Where do you think the body gets the energy needed to do all of these activities like sleeping, playing sports, thinking, reading, or watching television?”
4. Guide students to understand that the energy comes from what we eat and drink. Specifically, energy comes from something called calories. Ask students to share what they think the term calorie means and to share their definition with a partner. Challenge partners to reach consensus on one definition and then have volunteers share definitions. Challenge the class to reach one class definition, based on answers.

5. Explain that calories are a measurement tool, like inches or cups. Calories measure the energy a food or beverage provides from the carbohydrate, fat, and protein it contains. (Carbohydrates, fat, and protein are all nutrients found in many foods and beverages.) We use or burn calories by doing physical activity. The balance between the calories taken in from foods and the calories burned from physical activity and metabolic processes is called calorie balance.
6. Ask students if they know how many calories they should be consuming each day. Explain that the answer is based on many things: age, weight, gender, and even physical activity. If time allows, direct students to (insert link here). Make sure that students know that they don't need to count calories at their age, but it is important that they think about the healthiest way for them to get calories. Ask students what tools and information they can use as they make decisions about where they will get their calories. Remind them about what they learned in Lesson 1.

Session 2: What influences our food choices?

1. Give individual students or student groups a block of clay and let them know that they have three minutes to build a model that represents a breakfast food. Give students three minutes to form their models.
2. Debrief: Ask students to share their models and the reasons they chose the foods they did. Was it easy, is it their favorite. did friends influence them, is it something that represents their culture?
3. Introduce the term, "influence" and explain that when something or someone causes us to do something, it's called "influencing. Why do students think it's important to know what influences us to make certain decisions?
4. Ask students to think about or list the different things that they identified as influencing their model: family, culture, something they personally liked, or convenience, among others.
5. Now, have them think about what they actually ate for breakfast this morning. Did any of the factors on their list influence that food choice? Poll students to see how many of them were influenced by parents, convenience, culture, a commercial, or other factors.
6. Explain that many factors can influence our food choices and those factors can change over time. For example, their parents or caregivers may have a big influence right now

over what they eat but, as they get older, that influence may not be as big. They may be more influenced by friends or by personal preference.

7. Distribute the “What’s Your Influence?” student activity sheet. Read the directions and invite students to complete the activity sheet.
8. Discuss answers. What influences seem to be most common among the class? Remind students that our food influences are as unique as we are! It’s fine if they are different from a friend’s and they may be different next year than they are today. Individual preferences (favorite foods), culture, family, and more are all influences that may make our healthy eating patterns look different and that is okay.
9. Ask students how knowing about healthy eating patterns can influence their food choices.

Session 3: How Can I Influence Others?

1. Divide students into three teams and distribute a photo, image or model of a food item to each team. Tell each team that their job is to try to get you to choose their food to include in your next meal. They will have five minutes to come up with reasons why you should choose their food. Set a timer for five minutes and let students brainstorm ideas for influencing you to choose their food.
2. After five minutes, direct each team to give you their “pitch.” Encourage other teams to listen for facts, words, and images that the other teams use to influence you. After each team goes, invite other teams to share the techniques that were used.
3. Ask teams to evaluate each other’s pitches. What facts and information was most convincing? Did anyone use facts and information related to healthy eating patterns?
4. Ask students to come up with ideas about how they can influence others in positive ways related to their food choices. Ideas include sharing information, hanging signs on their refrigerator, making informational pamphlets and posters, and creating presentations. Talk with students about ways they can positively and respectfully influence others about making healthy food choices. Encourage students to be sensitive to each other’s cultural differences and to different choices. As always, be mindful of limited access to foods for some students.
5. Tell students that, in the final activity of the lesson, they will develop a presentation to positively influence others about food choices using technology like Prezi, PowerPoint or another interactive digital media. If technology is not available, they can also create a

poster, a book, a pamphlet or another creative model. The goal of their presentation is to:

- Reflect on important things they have learned about healthy eating patterns.
 - Share the information with classmates.
 - Use research and data to support their presentation (like the *USDA Dietary Guidelines for Americans 2015-2020* and USDA's My Plate).
 - Influence others to develop healthy eating patterns.
6. Distribute the “Food for Thought” activity sheet. Review the rubric with students. Give students ample time to complete their presentations. Invite students to present their presentations to a partner, group or the entire class.

You Decide: *This feature helps to reinforce decision-making with students and can be integrated into the lesson or serve as an extension*

You know you have a big soccer tournament this weekend so you will need extra energy. Decide what you will do to get that extra energy in the days leading up to the tournament. What foods and beverages will you choose, and why?

Family Connection:

Ask your family or another family how culture and family traditions influence the food they buy for the house. Create a family cookbook of traditional recipes so that the important cultural influences of your family are passed down from generation to generation.

For other tools to extend learning outside of the classroom, refer to the School-to-Home activities on TogetherCounts.com. Begin these activities together at school and then encourage students to continue them with their families.

Community Connection:

Invite the school cafeteria staff or food and nutrition services employees from your school to come to your class. Have them share the school menu for the week. Encourage students to develop questions about what influences the school menu.

Standards Correlations:

National Health Education Standards

- Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- Students will demonstrate the ability to use decision-making skills to enhance health.

- Students will demonstrate the ability to advocate for personal, family, and community health.

SHAPE America, National Physical Education Standards

- Analyzes the impact of food choices relative to physical activity, youth sports, and personal health.

Common Core State Standards for English Language Arts

- Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners building on others' ideas and expressing their own clearly.
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- Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- Write opinion pieces on topics or texts, supporting a point of view with reasons.
- Conduct short research projects that build knowledge about a topic.
- Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.
- Draw evidence from literary or informational texts to support analysis, reflection, and research.

Next Generation Science Standards

- Use evidence to support the explanation that traits can be influenced by the environment.
- Analyze and interpret data to determine similarities and differences in findings.

Student Activity Sheet: What's Your Influence?

Questions	Student Answer Write your response below	Reflection Why is this your favorite food? How did you decide? Who shared the food with you?
What is your favorite food?		
What is your favorite breakfast?		
What is your favorite snack food?		
What is your favorite lunch?		
What is your favorite dinner?		

Count how many choices were in each category and put the number below the title.

Family	Culture	School	Society	Media	Me

What factor influences your food choices the most?

Why do you think this is?