

## Teacher's Guide: Nutrition: What Your Body Needs

Recommended Grade Level: 5-8

*(also applicable to grades 9-12 for students requiring significant support in learning)*

Suggested Time: About 50-60 minutes spread over one or more class periods, plus additional time to complete a writing assignment

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### Goals

Following are the big ideas that students should take away after completing this lesson:

- Food provides the energy and nutrients our bodies need to function.
- Certain foods are a better source of energy and nutrients than others.
- Eating poorly can result in harmful health effects, including disease.

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### Vocabulary

(See definitions on page 6.)

- absorbed
- diabetes
- diet
- digestion
- nutrients
- nutrition
- processed

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### Key Literacy Strategies

Following are the primary literacy strategies students will use to complete this activity:

- Making connections (screens 2 and 5; writing assignment 3)
- Determining important information (screen 4, 5, 7, 8, 9, 10; writing assignment 2)
- Categorizing basic facts and ideas (screen 12)
- Constructing summaries (writing assignment 1)

Note: In addition to the key literacy strategies listed above, students will also use each of these strategies to complete this lesson:

- Monitoring comprehension
- Synthesizing
- Making predictions
- Developing vocabulary
- Connecting prior knowledge to new learning
- Developing a topic in writing
- Identifying and using text features (photographs, captions, diagrams, and/or maps)

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### Overview

*Nutrition: What Your Body Needs* is a student-directed learning experience. However, while students are expected to work through the lesson on their own, teachers should be available to keep the lesson on track, organize groupings, facilitate discussions, answer questions, and ensure that students meet all learning goals.

The following is a summary of the lesson screens:

- Screen 1: Students learn that they will be studying nutrition and how the nutritional choices they make affect their bodies.
- Screen 2: Students read a brief summary of the benefits of good nutrition. They learn that some people with health conditions such as diabetes must plan their diets carefully and that their own food choices can determine how healthy they will be. They then list some healthy foods and some that they know do not give their bodies what they need.
- Screen 3: Students learn what the goals are for the lesson, which strategies they will be using to complete the lesson, and the important vocabulary words they will use during the lesson.
- Screen 4: Students first read about some of the nutrients their bodies need to function well, including fiber, carbohydrates, proteins, and “good” fats. Students then watch a video about Misty, a college student who has diabetes, and find out how she plans her diet. They then list three things that Misty does to eat a balanced diet.
- Screen 5: Students read more about the nutrients mentioned on the previous screen, including what the nutrients do for the body and which foods supply them. They then list five or more foods they ate yesterday and write down if they contain carbohydrates, proteins, fats, or fiber.
- Screen 6: Students read about digestion, the process the body uses to break down foods into a form it can use. They also learn about ways they can help digestion, including eating foods with fiber and eating smaller meals.
- Screen 7: Students read about processed foods—foods that are changed from their natural state. They then watch a video in which a group of students explain why healthy foods are good for the body and why processed foods are bad. After watching the video, students write two ways natural foods can help their bodies and two ways processed foods can harm it.
- Screen 8: Students read a passage about what happens in the body as it digests food, problems caused by eating fast food and other processed foods, and tips for healthy eating habits. After reading the passage, students list two or three reasons why eating processed foods is unhealthy and at least two ways to improve their digestion and health.
- Screen 9: Students watch a video about Tim, who, like Misty, is a diabetic. In the video, Tim goes food shopping with his parents. He explains where to find healthy foods, which aisles to avoid, and which information on an item’s nutrition label is important. After watching the video, students write down two food-shopping tips that Tim gives in the video.
- Screen 10: Students answer three multiple-choice questions to show their comprehension of digestion, what contributes to a healthy diet, and what information may be missing from a nutrition label.
- Screen 11: Students complete an interactive vocabulary activity, and then choose two words from the vocabulary list and write a new sentence for each word. These tasks demonstrate their understanding of the meanings of the words.

Screen 12: Students use an interactive activity to arrange information on a concept map based on the health benefits or risks of eating certain foods.

Final

Assignment: Students select and complete a writing assignment about the lesson topic.

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### Before the Lesson

- Go through each screen of the lesson, including all the interactive activities, so that you can experience ahead of time what students will be doing. As you go through each screen, jot down your own expectations for students' responses.
- Determine if students will be working individually or in pairs on the lesson. Some students may be able to work independently with little or no support. Students who are less familiar with the subject area or who struggle with literacy skills may benefit from working with another student. An effective way to do this is to pair a stronger student with a less able reader. You can also have students work individually on certain tasks and in pairs on others, depending on their experience and needs. If students will be working in pairs on any portion of the lesson, let them know if they will be expected to type in their notes individually or together.
- Provide instruction on key vocabulary (vocabulary words are defined in the lesson on screen 3, and on page 6 of this guide).
- Determine what students already know about nutrition, a healthy diet, and poor eating choices. You may want to start a discussion with questions such as: What is a healthy diet? Why is it important to follow a healthy diet plan? Which foods/drinks provide the most nutrition for your body? Which foods/drinks provide the least amount of nutrients for your body? What are some consequences of not eating a well-balanced diet? Record their ideas on a chart. This will give you a sense of the background knowledge and possible misconceptions that students have before beginning this lesson. If time allows, return to the chart after students have completed the lesson to add new learning and correct misconceptions. Note: You may want to record their new learning in a different-colored ink so they can see how much they've learned.
- Arrange computers with Internet access so students can work individually or in pairs.
- Before students begin, suggest a timeline for completing the lesson, mention the different types of media they will encounter, and let them know how you expect them to submit their work. You may want to provide an outline of this information on a chart, chalkboard, or whiteboard, or as a handout.

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### Lesson Assessments

The following are descriptions of the lesson features that will be part of the packet of materials that students will submit. Students will use the packet for reference when writing their final assignment. It also serves as a formative assessment tool to monitor students' work as they are progressing through the lesson.

- **Notes** - Students take notes on screens 2, 4, 5, 7, 8, and 9. If time allows, review their notes before students begin their writing assignment.
- **Multiple-choice questions** - Students complete the three questions on screen 10. Walk around to make sure students answer all three questions before they continue. If students click to go to the next page before they finish, their work will not be saved.
- **Match It!** - Students complete an interactive vocabulary activity on screen 11. They begin by dragging the vocabulary terms into the correct sentences. After they finish and save their work, they will be able to check their answers against an answer key. When they are done, they will be asked to choose two vocabulary words and write a new sentence for each word. Sentences should demonstrate a clear understanding of the meaning of each word. An inappropriate response would be “People should watch their diet.” An appropriate response would be “A healthy diet includes foods from all the food groups.”
- **Arrange It!** - Students complete the concept map activity Arrange It! on screen 12. Students will assign information according to whether it relates to eating whole foods and fresh foods or fast food and processed foods. Students will not be able to check their answers online, so you will need to provide them with correct answers when they are finished with the lesson. You can choose to review the answers as a class or return the corrected packet of materials to students before they begin the final assignment.

Following are the terms students will drag and drop onto the concept map in the appropriate category (information in bold will be provided):

Whole Foods/Fresh Foods:

<i>Food Contents</i>	<i>Benefits</i>
<b>Protein</b>	Muscle growth/strong bones
<b>Fiber</b>	Healthy digestion
<b>Fats from vegetables/oils</b>	Improved heart health
<b>Carbohydrates</b>	Increased energy

Fast Food/Processed Foods:

<i>Food Contents</i>	<i>Risks</i>
<b>Added/processed fats</b>	Poor digestion
<b>Hidden sugars</b>	Diabetes complications
<b>High calories</b>	Obesity
<b>High sugar content</b>	<b>Energy “crash”</b>

- **Final Assignment** - Students complete one final writing assignment. You can choose to let students make their own selection or assign one according to your goals for the lesson. Use the rubric on page 7 to assess the writing assignments.

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### Lesson Aids and Extensions

Use the following suggestions to help students if they are stuck on a particular screen, to prepare students for completing their writing assignments, or as follow-up discussions to reinforce learning.

- **Watching Videos** - Encourage students to watch the videos more than once. After the initial viewing, provide students with a specific content focus to frame their next viewing(s) of the video. This will help them draw connections between the main topic and the information that the videos have to offer.
- **Participating in Discussions** - Organize class discussions or encourage students to talk about their questions in pairs. You may want to use the following discussion starters:
  - o Why is it important to eat a healthy diet?
  - o Which nutrients are important to a healthy diet? (carbs, proteins, good fats, fiber)
  - o What are the consequences (risks) of not eating a healthy, well-balanced diet?
  - o Why do you think people buy processed foods and “junk” food instead of healthy foods?
  - o What information would someone look for in a nutrition label?
  - o After viewing this lesson, would you describe your diet as healthy or unhealthy? What is the first thing you would change about what you eat (or don’t eat) if you could?
- **Reading the PDF Text** - Before they read the PDF text on screen 8, ask students what kinds of health problems can arise from eating processed or “junk” foods.
- **Sharing Student Work** - It may be motivational, and a further learning opportunity, for students to post their final essays so that their classmates, peers, and/or parents can see them. This may also provide an opportunity for students to comment on and discuss each other’s essays.
 

If you do not already have access to an online writing community, Teaching Matters™ provides TeXT, free classroom publishing tools that allow teachers and students to create and publish their own online eZine. More information and a free sign up are available at Teaching Matters: TeXT (<http://text.teachingmatters.org>).
- **Reflection and Self-Assessment** - After students have turned in their writing assignments, you can choose to have them assess their learning. Bring students together as a whole class or in small groups to discuss the questions below. You may want to return to the chart of their ideas developed before the lesson and record their new learning. You may also have students respond individually to the questions and then convene the class to discuss the chart.
  - o What did you learn?
  - o What was surprising?
  - o What questions do you still have?
  - o What was the easiest for you to understand and do?
  - o What was the most difficult?

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## Vocabulary Definitions

### **absorbed**

Taken in or soaked up.

### **diabetes**

A condition in which the body cannot convert, or change, sugar in the blood into the energy its cells need.

### **diet**

The foods that make up what a person usually eats.

### **digestion**

The process of breaking down food into substances the body can use.

### **nutrients**

Substances contained in foods that give the body energy and help it grow.

### **nutrition**

The process of taking in and using food for our bodies. A food's *nutritional value* is a measure of how much it can provide for your body's needs.

### **processed**

Changed from its natural state. Processed food has had its flavor or appearance changed so that it will last longer than it does naturally.

## Final Assignment Rubric Nutrition: What Your Body Needs

1. List the factors related to good food choices and describe why they are important for your body's health. Include in your essay the important nutrients in a well-balanced diet.
2. Explain what people can learn about their food from nutrition facts labels. Be sure your essay talks about important details such as ingredients that may be "hidden" or not well explained.
3. Write a plan for improving the way you eat. Be sure your plan includes:
  - a. What you currently eat during the day, and where.
  - b. What foods you would continue to eat or add to your diet.
  - c. What foods you would decrease or remove from your diet.

4	3	2	1
<p>Provides a clear and accurate response to the question. Ideas are elaborated, with three or more relevant supporting details from the reading passage, video, and other materials in the lesson.</p>	<p>Provides an adequate response to the question. Topic and ideas are generally well organized, with two relevant supporting details from the reading passage, video, and other materials in the lesson.</p>	<p>Provides a generally accurate response, with one supporting detail from the reading passage, video, and other materials in the lesson.</p>	<p>Provides an inaccurate response to the question or fails to address the question. May include misinterpretations. Understanding of the topic is not apparent.</p>
<p>Uses at least three vocabulary words (or a form of the vocabulary words) from the lesson, and uses them all correctly.</p>	<p>Uses two vocabulary words (or a form of the vocabulary words) from the lesson, and uses them both correctly.</p>	<p>Uses one vocabulary word (or a form of the vocabulary word) from the lesson, and uses it correctly.</p>	<p>Does not use any vocabulary words, or uses vocabulary words incorrectly.</p>

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## Scoring the Rubric

Here are two suggestions for scoring the final assignment rubric. Select the option that best meets your needs or develop your own grading system.

**Option 1:** This option provides one score for each submitted assignment.

Assign a score of 4 or below for the written response (first row of the rubric) and a score of 4 or below for the use of vocabulary (second row of the rubric), for a total maximum score of 8. The interpretation of scores is as follows:

Score	Grade	Narrative Interpretation
7-8	A	Excellent
5-6	B	Good
4	C	Adequate (Fair)
3 or below	D	Minimal

**Option 2:** This option provides two scores for each submitted assignment: one for written content and one for the use of key vocabulary. An advantage of separate scores is that you can weight students' comprehension and composition differently than you do their knowledge of vocabulary. It can also help you identify specific needs for future instruction.

Assign a score of 4 or below for the written response (first row of the rubric) and a score of 4 or below for the use of vocabulary (second row of the rubric) and then score them separately. The interpretation of scores is as follows:

Score	Grade	Narrative Interpretation
4	A	Excellent
3	B	Good
2	C	Adequate (Fair)
1	D	Minimal

The final grade may look like this: A/B (A for content and B for vocabulary use).