

Do You Want Ketchup With Those Nutrients?

By *Ferri Lockhart* for Blue Ridge PBS (WBRA, WMSY, WSBN)
Roanoke City Schools, Roanoke, VA

Grade Level: 7-12

Time Allotment: Two 45 minute classes.

Overview: This lesson will introduce students to the nutritional value of fast food and how to eat healthy no matter where they choose to eat. Students will review the food guide pyramid to determine what a healthy diet should consist of and then determine if fast food is healthy. Students will go to the following fast food web sites and compare nutrition information:

Burger King

Pizza Hut

McDonalds

Wendy's

The students will compile this nutrition information into a spreadsheet with information such as saturated fat, calories, carbohydrates, etc. By comparing the nutritional information, the students learn how to eat the healthiest foods possible at fast food restaurants.

Subject Matter: Health, Science, Language Arts

Learning Objectives:

Students will be able to:

- Identify a healthy meal
- Understand the nutritional value of fast food
- Learn what their daily nutritional needs are.
- Learn how well fast food meals contribute to their daily need for nutrients.
- Create a Public Service Announcement to educate other students on good nutrition

Standards:

The objectives listed may be used in part to address the following Virginia Standards of Learning: Virginia Department of Education

<http://www.pen.k12.va.us/VDOE/Superintendent/Sols/home.shtml>

Health

7.3 The student will investigate and analyze the various factors that guide an individual's decisions about health and well-being.

8.2 The student will apply health concepts and skills to the management of personal and family health

- List of URLs for each fast food restaurant.

Prep for Teachers:

- The teacher should preview and cue the video as indicated in the Learning Activities section.
- Make copies of the blank and completed food guide pyramids, old and new and the table for collecting data.
- Make transparency of the food guide pyramids or have blank pyramids, old and new, downloaded to be used with the SMARTBoard. Students and teachers should have a working knowledge of Excel or the spreadsheet program you choose.
- Download the new Food Guide Pyramid Chart from this site: <http://www.mypyramid.gov/kids/index.html> then click on MyPyramid for Kids Coloring Page Black and white line art of the MyPyramid for Kids symbol for kids to color. [PDF]
- Bookmark all of the URLs and give a list to students.

Introductory Activity:

Ask: “Who knows what the food guide pyramid is?” (The Food Guide Pyramid, a widely recognized nutrition education tool, translates nutritional recommendations into the kinds and amounts of food to eat each day.)

Ask: “Does anyone know why the food guide pyramid was developed?” (It was developed to help healthy Americans follow the Dietary Guidelines. Two sets of goals were established for the guide: Nutritional Goals, and Usability goals) **Ask:** “How many of you follow the guideline of the food guide pyramid?” (some students will raise their hand) **Say:** “I know that we have all seen the food guide pyramid. We were introduced to it in elementary school. However, it was revised in 2005.” **Ask:** “I wonder who could fill in all the information in the food guide pyramid?” **Say:** “Just for fun, I am not going to take it up or grade it, but, I am going to give everyone two blank food guide pyramids, one old one and one new one, and I want you to see if you can fill out the pyramids with the foods for each. You may remember the old one but may not have seen the new one yet but see if you can figure out where the food groups should go.” Give everyone a copy of two blank pyramids and ask everyone to fill it in. (allow about 5 minutes for students to fill out form, this will vary by class.) **Say:** “Don’t worry if you can’t remember the correct order since we will be going over it together.” When everyone has finished, **say,** “We are going to go check our old pyramid by looking at some clips of a video. If you have something wrong just mark through it and fix it. After we check the old pyramid we will use what we have learned to see if we can figure out where the food groups will be on the new pyramid.”

Learning Activities:

To set a **Focus for Media Interaction** say to the class: “I am going to show you a video

clip that will help us learn more about the food guide pyramid. In this first part I want you to listen for the foods that are on the base of the pyramid.” **Fast forward** until you see the food guide pyramid and the girl is saying “...here is something you may have seen or heard about.” **Pause** after you hear “...bread, cereal, rice and pasta.” **Ask:** “What foods are on the base of the pyramid?” (bread, cereal rice and pasta). **Say:** “Now I want you to listen for the food on the second level of the pyramid.” **Resume. Pause** when you hear them say “...compared to the food that forms the base.” **Ask:** “What foods are on the second level?” (vegetables and fruits). **Say:** “I want you to listen for the food on the third level of the pyramid.” **Resume. Pause** when you hear “...require fewer servings compared to the food that forms the base”. **Ask:** “What food forms the third level of the food pyramid?” (milk, yogurt, cheese and meat , poultry, fish, dry beans, eggs and nuts). **Say:** “I want you to listen for the food on the top level of the pyramid.” **Resume. Pause** when you hear them say” ... “ we should eat fewer servings of these foods than lower down on the pyramid.” **Ask:** “What food is on the top level of the pyramid?” (fats, oils and sweets). **Ask:** “Did everyone fill in his or her food pyramid correctly?” (make sure everyone has a completed copy).

Say: “Now, take out your new food pyramid. This one looks different than the old one. Tell me one thing that is different.” (It is turned on its side and steps are beside it). “Who can guess why they turned the pyramid on its side?” (Accept all answers) “In a little bit we will find out the answer to that. Who would like to guess why there are stairs beside the pyramid?” (accept all answers) “We will find out that answer too. First I want you to fill out the new pyramid based on what you learned about the old food pyramid.” (allow five minutes, this will vary by class.) **Ask:** “Who feels that they filled out their pyramid correctly? Let’s check. I am going to show you a video from the computer and we will check our work as we learn about the new food pyramid.”

Say: “I want you to look at this web site with me and together we will find out where all the food groups belong on the new food pyramid.”

Go to <http://www.mypyramid.gov/pyramid/index.html> and **ask:** “What foods do you think are represented by the orange or the largest band?” (Accept answers) Click on the orange band to find the answer. Read or have the students read. **Say:** “What foods will you find in the orange or largest band?” (Grains, bread, and cereals) “Mark that on your pyramid.” **Ask:** “What foods do you think are represented by the green band?” (Accept answers) Click on the green band to find the answer. Read or have the students read. **Say:** “What foods will you find in the green band?” (vegetables) “Mark that on your pyramid.” **Ask:** “What foods do you think are represented by the red band?” (Accept answers) Click on the red band to find the answer. Read or have the students read. **Say:** “What foods will you find in the red band?” (fruits) “ Mark that on your pyramid.” **Ask:** “What foods do you think are represented by the yellow band?” (Accept answers) Click on the yellow band to find the answer. Read or have the students read. **Say:** “What foods will you find in the yellow band? (Oils) Mark that on your pyramid.” **Ask:** “What foods do you think are represented by the blue band?” (Accept answers) Click on the blue band to find the answer. Read or have the students read. **Say:** “What foods will you find in blue band? (Milk and dairy) Mark that on your pyramid.” **Ask:** “What foods do you think are represented by the purple band?” (Accept answers) Click on the purple band to find the answer. Read or have the students read. **Say:** “What foods will you find in the purple band? (Meats, beans and nuts) Mark that on your pyramid.”

Say: “We have one last thing to find out. Why is there a figure of a person climbing the stairs on the side?” Click on the figure walking up the stairs. Read or have the students read. “Why is there a figure climbing stairs?” (To remind us to include physical activity everyday.)

Say: “Now that we understand the importance of the food pyramid let’s see how we can use it in our everyday lives.”

Ask: “How many of you have ever eaten at a fast food restaurant?” (All the students will probably raise their hands). **Ask:** “Who thinks that you could eat a healthy meal at a fast food restaurant?” (Ask those students that raise their hands why they think that and then ask those who didn’t raise their hands why they think that they couldn’t eat healthily. Allow for different answers and accept them all by saying, “... good point”). **Ask:** “I wonder if the proportions will have anything to do with a healthy diet?” (allow for comments from students). **Say:** “We will find out the answer to that question as we continue our lesson.”

Say: “ Before we start looking into what makes a healthy meal let’s see how we are eating right now. The four restaurants we will be looking at are McDonald’s, Wendy’s, Pizza Hut, and Burger King. I want you to take out a piece of paper and divide your paper into four... one quarter for each restaurant. I want you to write the name of the four restaurants down and under each one I want you to list what you normally get when you go to that restaurant or if you haven’t been for a while, write what you would order. Don’t forget the drink and the size of each.” (Allow time for students to write out information).

Take them to the computer lab if you do not have computers in your room.

Give everyone a copy of the blank table to collect data from the internet. **Say:** “We are going to fill this chart out by going to the internet. But first transfer the selection of foods under the appropriate restaurant on this blank table that I just gave you. Afterwards we will transfer this data to a spreadsheet so we can interpret our data. Open your internet browser and go to http://www.mcdonalds.com/usa/eat/nutrition_info.html, click on Nutrition Information and find the items you selected and the nutritional items on the chart. Do this for each item. When you finish McDonalds go to the next three fast food restaurants using the following URL’s,

- <http://www.bk.com/Food/Nutrition/NutritionWizard/index.aspx> Burger King
- <http://www.pizzahut.com/> Pizza Hut
- <http://www.wendys.com/food/index.jsp?country=US&lang=EN> Wendy’s.”

Allow time to finish.

When everyone is finished **say**, “Open Excel so we can set up our spreadsheet and enter our information (see example of setup attached). In cell A1 type *McDonald’s*, in cell B1 type *Calories*, C1 type *Calories from Fat*, D1 type *Total Fat*, E1 type *Cholesterol*, F1 type *Sodium*, G1 type *Total Carbs*, H1 type *Dietary Fiber*, I1 type *Sugars*, J1 type *Protein*. In A2 and continuing down as far as you need, type each item you ordered from McDonald’s, i.e. A2 could be *Big Mac*, A3 could be *large fries* etc. After you finish all items from McDonald’s, type *Burger King* and continue listing items. Then type *Wendy’s* and after you list those items type *Pizza Hut*. After you have finished typing, save your spreadsheet and minimize it.”

Say: “Before we go on with this lesson I want to show you another part of the video

because we will be doing the same activity that is on the video.” To set a **Focus for Media Interaction** say to the class: “Earlier on in the video, in a part that we didn’t see, a young boy named Josh goes into McDonald’s and orders a quarter pounder with cheese, large fries and a coke for lunch.” (write the items on the board, computer or SMART Board).

“If we look at that lunch and place the items on the food guide pyramid I wonder what it would look like? First we will take the base of the pyramid. I want you to watch this clip to see what food from Josh’s lunch will go in the bread, cereal, rice and pasta group.”

Resume tape. You will be starting tape where you left off earlier in the lesson. Pause when you hear them say “...cereal group”. **Ask:** “What item would fall into the first group?” (hamburger bun). **Say:** “I want you to watch to see what food will go into the second level of the vegetable and fruit groups.” **Resume. Pause** when you hear them say “...we will see what else the fries do to the pyramid in a few seconds.” **Ask:** “What item falls into the vegetables and fruits?” (french fries and no fruit). **Say:** “I want you to watch to see what food will go into the next level: the milk, yogurt and cheese and the meat, poultry, fish, dry beans, eggs and nuts groups.” **Resume. Pause** when you hear them say, “ ... the pyramid is looking a little out of whack.” **Ask:** “What food is in the milk, yogurt and cheese and the meat poultry, fish, dry beans, eggs and nuts groups?” (cheese, hamburger). **Say:** “I want you to watch to see what food will go into the next level, the oils and sugar group.” **Resume.** Stop when you see a woman standing. **Ask:** “What food is in the top level?” (oils from fries and sugar from soda). **Ask:** “According to the food guide pyramid, did Josh eat a healthy meal?” (no). “I want you to pick two restaurants that you gathered information on and on the two blank pyramids (hand out blank pyramids) I want you to break down the meals and write the food item on the level of the pyramid it belongs.” Allow time to finish.

Culminating Activity:

When everyone is finished **Say:** “I want you to take your food pyramids with the meals broken down and the spread sheet with the nutrient information and come up with a healthier meal at a fast food restaurant. I want you to look at the total nutrients for each item and how that will play into a healthy meal. Also, I want you to look at portions.” Allow time to finish. When finished, allow everyone to share their healthier meal.

*Optional Culminating Activity: Divide into groups of 3 or 4 and go back to each of these websites and, based upon what was learned about good nutrition and the food guide pyramid, have students create a public health announcement or small commercial on good nutrition. This 2-minute video can be funny or serious. The objective is for the students to understand how to select healthy food. Have the students write scripts and use props as needed to use in their announcement. Use digital cameras to record their PSA and software to edit, (iMove, MovieMaker or Movie Works, whatever you have and are comfortable with).

Cross-Curricular Extensions:

English:

Write a script for a public service announcement or commercial on nutrition.

Math:

Using the food labels found on food packages, create other spreadsheets and graphs to compare and contrast different nutrients found in different foods.

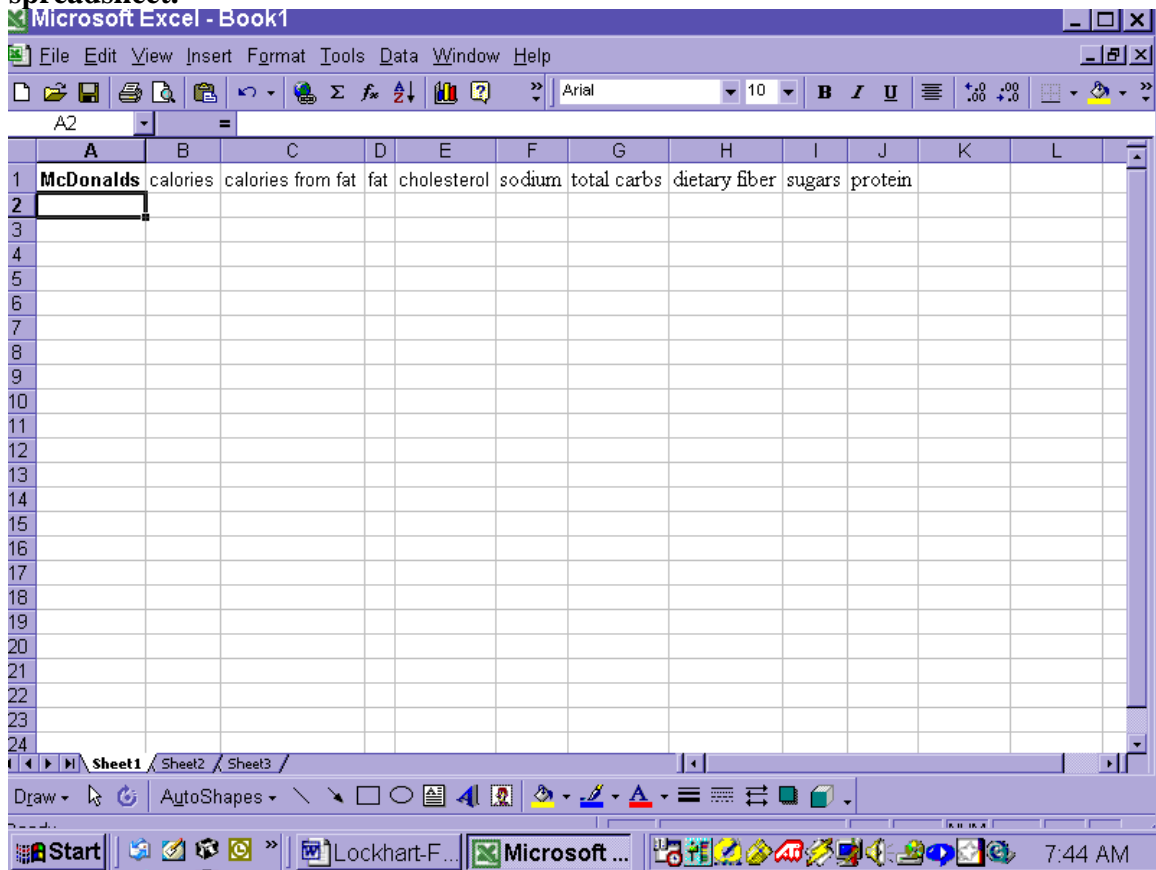
Science:

Study the difference between organic gardening and regular gardening. What chemicals can be found in gardens that make their way into our foods?

Community Connections:

- Ask a nutritionist to give a talk to the class.
- Have a doctor talk to class about the long term effect of not eating healthily.
- Take a field trip to a fast food restaurant and order a healthy meal.

Example of how you should set up your spreadsheet.



Ideas for Students with Special Needs

Visually Impaired

- Enlarge the text on the handouts
- Make copies on blue paper or retype and create white font on black paper. Your visual specialist should be able to help you with a good color combination.
- Using the Display icon in Control Panel (XP), you can modify the way desktop objects such as windows, menus, fonts, and icons appear on your screen. Certain color, font, and size options for desktop items are easier for some people to see.
- XP has a utility called Magnifier. This utility makes the computer screen more readable by people who have low vision by creating a separate window that displays a magnified portion of the screen. There are a variety of settings from which to choose. To get to the magnifier go to Start Menu, Accessories, Accessibility, Magnifier.
- The Macintosh has a similar utility located under System Preferences.

Old Food Pyramid

