Chapter 4: Nutrition

Chapter 4: Nutrition Teacher's Guide

Learning Objectives

- Students will explain two ways that nutrition affects health
- Students will describe the function of 5 important nutrients, and name foods that contain them
- Students will name four rules for healthy eating
- Students will identify four important pieces of information on a food label

CASAS Competencies

- **3.5.1** Interpret nutritional and related information listed on food labels
- 3.5.2 Select a balanced diet
- **3.1.3** Identify and utilize appropriate health care services and facilities, including interacting with providers
- 4.9.3 Identify sources of information and assistance, and access resources within a system
- 7.4.4. Identify and utilize appropriate informational resources, including the Internet

Section 1: Discussing & Reading About Nutrition

Suggestions for Discussing the Theme Picture

Show <u>theme picture</u> to introduce topic.
 "What do you see?"
 "Where are they?"

"What are they doing?"

"Why?"

2. <u>Ask questions</u> to stimulate discussion.
"What are your favorite fruits?
"What are your favorite vegetables?"
"Do you buy all of your fresh food, or do you grow some at home?"



A key point of this chapter is that good food can keep you healthy and prevent diseases. Students are encouraged to eat more fruits and vegetables and less fat and sugar. They learn about carbohydrates, proteins, and fats and how to read a food label.

Suggestions for Teaching Key Vocabulary

Key vocabulary words are bolded in the text. Most are listed with some visual clue in vocabulary boxes, (example at right), and listed again with more detail in the glossary. Help students locate and pronounce the key vocabulary before reading the text.

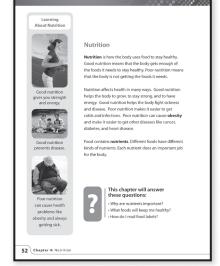
Suggestions for Teaching Health Content

- Before reading, discuss the pictures on the page.
- Have students take turns reading select paragraphs out loud.
- Discuss vocabulary. Have students use context clues to define key words.
- More advanced students may want to underline or highlight new information.
- Ask students what kinds of foods they ate in their home country, and how they bought and cooked food there.
 Ask how they think these habits differ now that they are in the U.S. and how these changes affect their nutrition?
- Asking students what they already know about nutrition and eating healthy will help them integrate what they know about the topic with the new information they encounter.

Issues to Address

- There are no foods that have all the nutrients we need. Each food has different combinations of nutrients. This is why we need a variety of food.
- There is too much fast food, sugar, salt, and fat in people's diets here in the U.S. Talk to students about their traditional ways of eating and cooking. It is likely to be healthier than how they eat here. Encourage them to keep the healthy parts of their traditional ways of eating and cooking in their lives.
- If students are not getting enough vitamins and minerals through the foods they eat, they might want to take a vitamin supplement. A good multivitamin provides many of the vitamins and minerals that are recommended for everyday consumption.

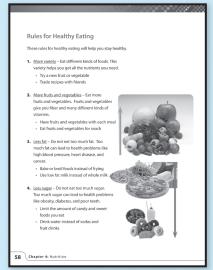
Key Vocabulary nutrition nutrient obesity nutrition facts sodium chronic disease



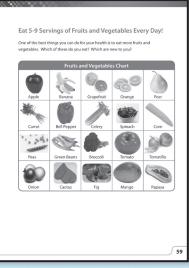
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- The logistics of healthy eating are also hard when both parents work. Talk about solutions to this.
- In the U.S. many people are overweight or obese. Obese means very overweight, and is defined as 30% higher than a healthy weight. Being overweight is unhealthy and can lead to health problems such as diabetes, heart disease and high blood pressure.
- Students may ask about good vs. bad fats. We did not go into that in the student book. Saturated fats (bad) are in animal products such as meat, milk, cheese, and eggs. Vegetable oils are unsaturated fats and (except for coconut and palm oil) should be used for cooking purposes as opposed to other fats (such as butter and lard). Trans fats are a kind of processed fat that is also bad. All fats (saturated, trans fat, and vegetable oil) are high in calories. See the Web for resources for more information about fats, but the message for this chapter is less fat is better!
- Carbohydrates come in two kinds: simple and complex. Complex carbohydrates are grains (starches) like bread, pasta, rice, and cereals. These give lasting energy and also often have a good amount of fiber and vitamins. Simple carbohydrates are sugars and give quick energy that burns off fast. These include candy and sweet foods but ALSO fruits and fruit juices. If someone is trying to cut down on sugar, eating too much fruit (and especially juice) is not great.
- Tell students about the WIC program, which helps women and children get and eat healthy food. WIC = Women, Infants and Children. Explain that if they meet certain income guidelines, they can get coupons for free healthy food, and help with nutrition, breastfeeding and health care. See the list of Web resources for more information on the WIC program.





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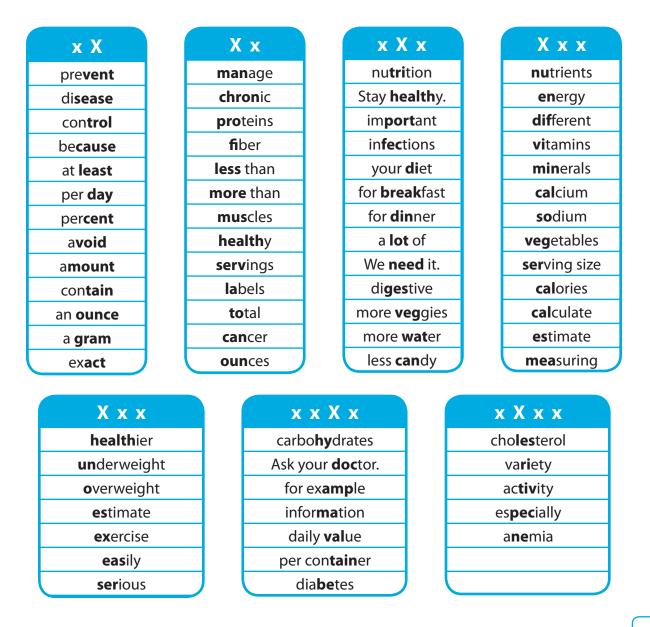
Section 2: Activities

Pick and use as needed to develop skills.

Pronunciation Activity: Tap the Stress (X = LOUD tap, x = softer tap)

Teaching Steps:

- Tap or clap the rhythm of the group being studied. Tap loudly for a big X and softly for a small x. For example, tap the rhythm X x like this: TAP tap, TAP tap, TAP tap. Once you have set the rhythm, have students join you in tapping the rhythm. Keep tapping without saying anything until everyone is tapping in unison:
- 2. Say each word in time to the tapping. <u>Have students continue the beat as they repeat</u> <u>each word in unison after you.</u> Repeat each word until students' rhythm and pronunciation are acceptable. Do not drag, keep up the tempo.





Have students read the labels then answer the questions. See student worksheet at the end of this teaching unit.

Milk label A	Milk label B	Milk label C
Serving Size 1 cup (240 mL). INGREDIENTS: MILK, Serving Size 1 cup (240 mL). Servings Per Container 8 Amount Per Serving MARKETED BY: Calories 150 Calories from fat 70 % Daily Values* MERKETED BY: Total Fat 8g 12.% Saturated Fat 5g 25% Trans Fat 0g Serving Polourestruated Fat 0g Container 8	Mutrition Facts Serving Strat cup (240 mL) Serving Per Container 8 Amount Per Serving Calories 130 Calories 130 Calories 130 Staturate Fat 5g % Daily Values* Total Fat 5g Staturate fat 3g Polyunsaturated fat 0g	Nutrition Facts Serving Size 1 cup (240 mL), Servings Per Container 8 INGREDI MILK, VI VITAMIN ARKET Calories 110 Calories from Fat20 % Daily Values* Total Fat 2.5g 4% Saturated Fat 1.5g 8% Trans Fat0g Polyunsaturated Fat 0g SetL BY D Contrainer SetL BY D SetL BY D

GERATED

- 1. If you are trying to eat less fat, which milk is best for you?
 - O Label A
 - O Label B
 - Label C

Cereal	labe	el A		Cereal lab	el B	3	Cereal la	bel (C
Determent wated Fat	OFa			cholesterol Omg	0%	0%	Cholesterol Omg	0%	1%
Polyunsaturated Fat				Sodium 350mg	15%	17%	Sodium 240mg	10%	13%
Monounsaturated F	0			Potassium 360mg	10%	16%	Potassium 45mg	1%	7%
Cholesterol Omg	0%	1%	0	Total Carbohydrate 45g	15%	17%	Total Carbohydrate 23g	8%	10%
Sodium 190mg	8%	10%	140	Dietary Fiber 7g	28%	28%	Dietary Fiber 0g	0%	0%
Potassium 170mg	5%	11%	130	Sugars 19g	124421534	Contraction of the second	Sugars 2g		12
Total				Other Carbohydrate 19g	1.1991.0	and the second	Other Carbohydrate 21g		
Carbohydrate 20g	7%	9%		Protein 5g		and the second second	Protein 2g		
Dietary Fiber 3g	11%	11%						1.	
Soluble Fiber 1q				Vitamin A	10%	15%	Vitamin A	10%	15%
Sugars 1g				Vitamin C	0%	0%	Vitamin C	10%	10%

- 2. If you are trying to eat more fiber, which cereal is best for you?
 - O Label A
 - Label B
 - O Label C
- 3. Which cereal has less salt?
 - Label A
 - O Label B
 - O Label C



Bring in a variety of foods with labels. Students work alone or in pairs and fill in the chart below using a few of the foods. Explain that throughout the day we should get less than 1/3 of our calories from fat. If the food has less than 1/3 of its calories from fat then it is healthier than foods that have more fat. Show them how to figure this out by multiplying the fat calories by 3, and comparing that with the total calories. Or they can divide the total calories by 3, and compare that with the fat calories. See student worksheet at the end of this teaching unit.

Name of food:	_
One Serving:	
Total calories in one serving:	Total Calories ÷ 3 =
Total Fat calories in one serving:	
X 3 = fat calories Is this food high in fat? I yes I no	

Name of food:	
One Serving:	
Total calories in one serving:	Total Calories ÷ 3 =
Total Fat calories in one serving:	_
X 3 =	
ls this food high in fat? 🗅 yes 🛛 no	

Grammar Activity: Common Phrases for Comparing Amounts and Frequencies

This activity will help students understand and use a variety of phrases dealing with amounts. Students read the chart then fill in the blanks below. See students' handout at the end of this teaching unit.

Important Opposites								
none	less than 3	exactly 3	more than 3	many or a lot				

- 1. The opposite of **none** is <u>many</u> or <u>a lot</u>.
- 2. The opposite of less than is <u>more than</u>.
- **3.** The opposite of **a lot** is <u>**a little**</u>.
- 4. The opposite of many is <u>none</u>.

Grammar Activity: Words that Mean the Same Thing

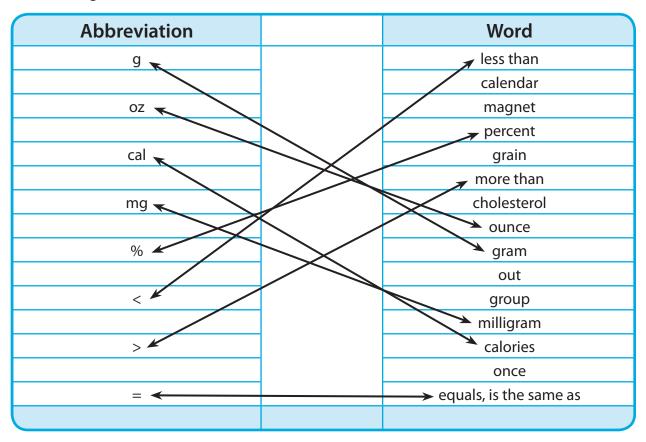
Students read the chart then fill in the blanks below. See student handout at the end of this teaching unit.

Words & Phrases That Mean the Same Thing					
daily	every day				
weekly	every week				
monthly	every month				
yearly	every year				
per day	each day				
high in	has a lot of				
low in	has a little of				
cut down on	eat less of				
a good source	a good way to get, a good place to find				
obese	very overweight				
underweight	too thin				

- 1. Milk is <u>a good source of</u> calcium.
- 2. Nearly everyone needs to <u>cut down on</u> fats and salt.
- How many servings of fruits and vegetables should you eat each day?
 5-9 servings per day
- 4. Meat is high in protein.
- 5. It's a good idea to get a checkup <u>yearly</u>. (how often)
- 6. Orange juice <u>has a lot of</u> vitamin C.
- 7. For healthy teeth you should <u>cut down on</u> candy.

GC Grammar Activity: Abbreviations for Amounts

Students draw a line from the abbreviation to its word. See student worksheet at the end of this teaching unit.



Hands-On Activity: Looking at Food Labels and Grouping

Bring in a variety of foods with labels to class. Also bring in measuring cups and other "serving size objects" such as baseballs, fists, or a deck of cards. For a description of serving size objects, see page 62 in the student book or go to <u>http://hp2010.nhlbihin.net/portion/</u><u>servingcard7.pdf</u>. Have each student pick a food. Students can work in pairs or groups to learn what nutrients their foods have. They should use the measuring cups or serving size objects to find out what one serving looks like. Then they should look at the labels to find out the amounts of fat, fiber, and vitamins in one serving. Ask the class which foods are high in fat and have students with foods high in fat come to the front of the class and read their label and say how much fat is in one serving. They should also show what one serving looks like. Repeat activity with foods low in fat, foods high in fiber, foods high in calcium (20% DV or more), foods high in iron (20% DV or more), and foods low in sodium (less than 200 mg).

Technology Activity: How Much Should I Weigh?

This exercise will help students check their weight – and give them another easy-to-use health resource to share with their family and friends.

Explain to students that there is an easy way to see if they are too heavy, too thin, or just right. It is called **BMI** or **Body Mass Index**. BMI is a number that is calculated using height (how tall you are) and weight (how heavy you are). Students should also check with a doctor regarding their weight. See students worksheet at the end of this teaching unit.

Steps to find your BMI:

- 1. Measure your height and weight. You can use inches and pounds or centimeters and kilograms.
- 2. Go to www.nhlbisupport.com/bmi.
- 3. Enter your height and weight.
- 4. Read your BMI in the heart.
- 5. Find your BMI on the chart. Are you: underweight, normal weight, overweight, or obese?

If your BMI is	You are	What to do			
Less than 18.5	Underweight (too thin)	Eat more calories			
18.5 – 24.9	Normal weight (good!)	Keep eating healthy!			
25 – 29.9	Overweight (too heavy)	Eat less calories and less fat Exercise more			
More than 30 Obese (dangerously heavy) Ask your doctor for help losin weight					
NOTE: < means less than and > means more than					

You can find a similar BMI calculator at <u>http://www.healthyfloridians.com/obesityPrev.html</u>

Section 3: Dialog

Suggestions for Teaching the Dialog

Help students read the dialog. Then have them practice the roles in pairs. To change the dialog, substitute other appropriate words for the underlined words. Finally, encourage chain drills and free conversations on the topic. The dialogs are listed by degree of difficulty. Beginning ESL students may only be able to do Dialog 1, but they will benefit from listening to classmates practice the others.

(Dialog 1

Person 1: Aren't you going to eat your French fries?
Person 2: No.
Person 1: Why not?
Person 2: I'm trying to lose weight.

Dialog 2

Customer: Do you have any low calorie items?
Waiter: Yes, on the last page of the menu.
Customer: OK. I'll have the broiled fish and mixed vegetables.
Waiter: Anything else?
Customer: Not today, thank you.

Dialog 3

Doctor: You are overweight and need to lose weight. It will help if you change your diet.

Patient: How do I change my diet?

Doctor: Eat less calories from fat. Eat less meat, dairy products and eggs. Can you eat less of these foods?

Patient: I have tried to eat less fat, but I am not sure what to eat instead. How can I get help to change my diet?

Doctor: I can refer you to a dietician. The dietician can meet with you a few times and help you change your diet.

Section 4: Check Your Learning

Suggestions for Checking Learning

Quiz: Have students look at the food label on page 61 of their book, and answer these questions. See student worksheet at the end of this teaching unit.

- 1. How many calories are in 2 servings?
 - O 110
 - O 250
 - O 220
 - 500
 - O 470
- 2. Is this item high in fiber?
 - O Yes
 - No
 - O The label doesn't say
- **3.** Is this item low in salt?
 - O Yes
 - No
 - O The label doesn't say
- 4. What % DV of calcium will 3 servings give you?
 - O 10%
 - O 50%
 - **60%**
 - O 75%
- 5. What is the serving size?
 - 1 cup
 - O 2 cups
 - O 1/5 cup
 - O 1/5 package
 - O 1 package

Nutrition Facts

Serving Size 1 Cup (228g) Servings Per Container 2

Amount Per Serving

Calories 2	250	Calori	es from F	at 110
		% D	aily Va	alue*
Total Fat 1	l2 g			18%
Saturated F	Fat 3g			15%
Trans Fat 3	ßg			
Cholester	ol 30mg	I		10%
Sodium 47	0 mg			20%
Total Carb	ohydi	rate 3	1g	10%
Dietary Fib	-		Ũ	0%
Sugars 5g	•			
Protein 5g				
Vitamin A				4%
Vitamin C				2%
Calcium				<u>20%</u> 4%
Percentage Daily Values	are based on	a 2,000 calorie	e diet. Your Daily	
may be higher or lower of				
	Calories	2,000	2,500	
Total Fat Sat Fat	Less than	65g	80g	
Sat Fat Cholesterol	Less than Less than	20g 300mg	25g 300mg	
Sodium	Less than	2,400mg	2,400mg	
Total Carbohydrate	2005 UIdii	2,400mg	375g	
Dietary Fiber		25g	30g	

Sharing with Others: Students can help friends and family figure out their BMI, using the website. Or you can print out a chart for them (from the same link) and they can use that. Students can find a friend who has similar goals as them, like losing weight or eating more fiber. Together, they can decide on three eating habits to change, and find three recipes to try to help with their goal. Ask them in a month how their goals are going, or ask them to keep a journal.

Section 5: Additional Resources

Visit these websites for more information on nutrition.

Information

Fruit and Vegetable Encyclopedia http://www.dole5aday.com/HTML/Kids/Nutrition%20Database/Encyclopedia.html Be Heart Smart! Eating Less Fat and Cholesterol (in English and Spanish) http://www.nhlbi.nih.gov/health/public/heart/other/chdblack/smart.pdf Better Health and You: Tips and Information on Healthy Eating http://www.win.niddk.nih.gov/publications/better_health.htm#tips Cut Down on Fat Not on Taste (in English and Spanish) http://www.nhlbi.nih.gov/health/public/heart/other/sp_fat.pdf Food and Diet Information (in English and Spanish) http://www.4women.gov/tools/ Lessons for Living Well: Nutrition Information for Adult ESOL http://www.lessonsforlivingwell.org Vitamins and Other Nutrients http://www.girlshealth.gov/nutrition/eating_essentials.htm

Activities

Fruits and Veggies Matter http://www.fruitsandveggiesmatter.gov Aim for a Healthy Weight (click on BMI Calculator) http://www.nhlbi.nih.gov/health/public/heart/obesity/lose_wt/index.htm

Free or Low Cost Services

Florida WIC Nutrition Services for Women, Infants and Children (in English, Spanish, or Haitian Creole) http://www.doh.state.fl.us/family/wic or call 1-800-343-3556 As you work through the topic of nutrition with your students, keep a list of other resources you find helpful.

•_____

•_____

•_____

•_____

Other Resources

Section 6: Student Worksheets

Student Worksheet: 1/3 of Calories From Fat?

- Find the total calories and the fat calories.
- Multiply the fat calories by 3
- If this number is more than the total calories, the food is high in fat

Name of food:	
One Serving:	
Total calories in one serving:	Total Calories ÷ 3 =
Total Fat calories in one serving:	
fat calories X 3 =	
ls this food high in fat? 🗅 yes 🛛 no	
Name of food:	
One Serving:	
Total calories in one serving:	Total Calories ÷ 3 =
Total Fat calories in one serving:	
X 3 =	
fat calories	
ls this food high in fat? 🗅 yes 🛛 no	

Student Worksheet: Comparing Labels

Read the labels then answer the questions

Milk label A	Milk label B	Milk label C
Mutrition Facts Serving Size 1 cup (240 mL) Serving Per Container 8 Amount Per Serving Calories 150 Calories 150 Calories 150 Sturit Per Serving % Daily Yalues* Total Fat 8g Tans Fat 0g Polyuncturated Fat 0n	Nutrition Facts Servings Per Container 8 INGREDIENTS: 2% RE FAT MILK, VITAMIN A PALMITATE, VITAMIN A PALMITATE, VITAMIN A MARKETED 8Y: Calories 130 Calories from Fat 5 % Daily Values * Data Fat 5g % Saturated Fat 3g 8% Staturated Fat 3g Saturated Fat 3g 15% Trans Fat 0g Polyunsaturated Fat 0g Saturated Fat 0g	Serving Size 1 cup (240 mL) Servings Per Container 8 INGREDIENTS: 1% LC MILK, VITAMIN A PAL VITAMIN D3. Amount Per Serving Calories 110 Calories from Fal20 % Daily Values* MARKETED BY: Wol-Mart Stores, Inc. Bentonville, AR 7271 01993 Total Fat 2.5g 4% Saturated Fat 1.5g 8% Trans Fal 0g Polyunsaturated Fat 0g Selit by Date And MF6. PLANT STAMPED ON CONTAINER

- 1. If you are trying to eat less fat, which milk is best for you?
 - O Label A
 - O Label B
 - O Label C

Cereal	lab	el A		Cereal lab	el E	;	Cereal la	bel (C
Polyunsaturated Fat	0.50			cholesterol Omg	0%	0%	Cholesterol Omg	0%	1%
				Sodium 350mg	15%	17%	Sodium 240mg	10%	13%
Monounsaturated F	0		0	Potassium 360mg	10%	16%	Potassium 45mg	1%	7%
Cholesterol Omg	0%	1%	0	Total Carbohydrate 45g	15%	17%	Total Carbohydrate 23g	8%	10%
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Total				Other Carbohydrate 19g			Other Carbohydrate 21g		
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Sugars 1g				Vitamin C	0%	0%	Vitamin C	10%	10%

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 - O Label B
 - O Label C
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Student Worksheet: Comparing Amounts and Frequencies

Read the chart and fill in the blanks below.

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none	less than 3	exactly 3	more than 3	many or a lot				

- 1. The opposite of **none** is ______ or _____.
- 2. The opposite of less than is _____.
- 3. The opposite of a lot is _____.
- 4. The opposite of **many** is ______.

Student Worksheet: Words That Mean the Same Thing

Words & Phrases That Mean the Same Thing				
daily	every day			
weekly	every week			
monthly	every month			
yearly	every year			
per day	each day			
high in	has a lot of			
low in	has a little of			
cut down on	eat less of			
a good source of	a good way to get, a good place to find			
obese	very overweight			
underweight	too thin			

Read the chart and fill in the blanks below.

- 1. Milk is _____ calcium.
- 2. Nearly everyone needs to ______ fats and salt.
- How many servings of fruits and vegetables should you eat each day?
 5-9 servings ______
- 4. Meat is _____ protein.
- 5. It's a good idea to get a checkup ______. (how often)
- 6. Orange juice ______ vitamin C.
- 7. For healthy teeth you should _____ candy.

Student Worksheet: Abbreviations for Amounts

Abbreviation	Word
g	less than
	calendar
OZ	magnet
	percent
cal	grain
	more than
mg	cholesterol
	ounce
%	gram
	out
<	group
	milligram
>	calories
	once
=	equals, is the same as

Draw a line from the abbreviation to its word.

Student Worksheet: How Much Should I Weigh?

BMI or **Body Mass Index** is an easy way to see if you are too heavy, too think, or just right. BMI is a number that you calculate using your height (how tall you are) and your weight (how heavy you are). You should also check with a doctor about your weight.

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- 2. Go to www.nhlbisupport.com/bmi
- **3.** Enter your height and weight.
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- **5.** Find your BMI on the chart. Are you: underweight, normal weight, overweight, or obese?

If your BMI is	You are	What to do			
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25 – 29.9	Overweight (too heavy)	Eat less calories and less fat Exercise more			
More than 30	Obese (dangerously heavy)	Ask your doctor for help losing weight			
NOTE: < means less than and > means more than					

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Student Worksheet: Check Your Learning

Read the food label and answer the questions.

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- O 110
- O 250
- O 220
- O 500
- O 470

2. Is this item high in fiber?

- O Yes
- $O \ \ \text{No}$
- ${\rm O}~$ The label doesn't say

3. Is this item low in salt?

- O Yes
- O No
- O The label doesn't say

4. What % DV of calcium will 3 servings give you?

- O 10%
- O 50%
- O 60%
- O 75%

5. What is the serving size?

- O 1 cup
- O 2 cups
- O 1/5 cup
- O 1/5 package
- O 1 package

Nutrition Facts

Serving Size 1 Cup (228g) Servings Per Container 2

Amount Per S	erving					
Calories 2	250	Calori	at 110			
		% Daily Value*				
Total Fat 1	2 a	/0 -		18%		
Saturated F	at 3g			15%		
Trans Fat 3	g					
Cholester	bl 30mg	J		10%		
Sodium 470) mg			20%		
Total Carb	ohydı	rate 3	1g	10%		
Dietary Fibe	-		0	0%		
Sugars 5g	0					
Protein 5g						
				40/		
Vitamin A				4%		
Vitamin C				2%		
Calcium				20%		
Iron				4%		
Percentage Daily Values				y Values		
may be higher or lower d	epending on y					
	Calories	2,000	2,500			
Total Fat	Less than	65g	80g			
Sat Fat Cholesterol	Less than Less than	20g 300ma	25g 300mg			
Sodium	Less than	2,400mg	2,400mg			
Total Carbohydrate	2000 (1011	300g	375g			
Dietary Fiber		25g	30g			