

# Nutrition

The body needs six basic nutrients each day to remain healthy: carbohydrates, fats, proteins, vitamins, minerals, and water. Nutrients are chemical substances in food that provide fuel for energy, materials for building and maintaining body tissue, and substances that help regulate body functions.

People need large amounts of carbohydrates, fats, and proteins each day. Carbohydrates and fats are the body's main sources of energy. Simple carbohydrates are sugars. They enter the blood stream quickly and provide immediate energy. Complex carbohydrates, which are a long-lasting source of energy, are contained in foods such as rice, wheat, and oats. Fats are also a source of energy, and they help store vitamins in the body. Vitamins A, D, E, and K are stored in the body, primarily in the liver, for future use. Saturated fats can increase the level of cholesterol, a waxy substance that can accumulate in the blood vessels and cause heart attacks and strokes. Proteins build muscle, skin, cartilage, and hair. Some good sources of protein include lean meat, fish, poultry, dried beans, eggs, and nuts.

The body also needs vitamins and minerals each day. Vitamins help the body turn food into energy and tissue, while minerals aid growth and digestion. Vitamins B and C cannot be stored in the body. Instead they must be ingested every day. Minerals such as iron, calcium, and sodium help regulate chemical reactions in the body. Insufficient iron intake can lead to anemia, a condition in which the body does not produce enough blood cells. Calcium builds and maintains strong bones and teeth, while sodium helps maintain a balance in body fluids.

An adequate amount of dietary fiber is also essential. Fiber aids in digestion. Dietary fiber is found in wheat bran, cereals, and fresh fruits and vegetables.

Another important nutrient is water. Water regulates body temperature, contributes to the production of blood, aids in digestion, and helps remove waste from the body. People should drink one to two quarts of water each day.

*Circle the letter of the correct ending for each statement.*

- Each day the body needs large amounts of
  - vitamins
  - dietary fiber
  - carbohydrates
- Vitamins
  - help turn food into energy and tissue
  - regulate body temperature
  - provide quick energy
- The substance that provides energy and helps store vitamins is
  - protein
  - calcium
  - fat
- Dietary fiber
  - aids in digestion
  - builds muscle
  - makes blood
- Lean meat, fish, poultry, dried beans, eggs, and nuts are good sources of
  - calcium
  - protein
  - carbohydrates

Name: \_\_\_\_\_ Class Period: \_\_\_\_\_



# Nutrition Project

Proper nutrition is important in our lives, and people should be informed about the nutrients in foods that are consumed. Your task is to help educate your classmates on proper nutrition in one of 3 ways. **You only need to choose one option to complete and present to the class.** This project will be due on \_\_\_\_\_.

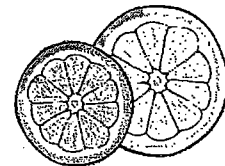
## Option 1: Recipe Analysis

- \_\_\_\_\_ Find a favorite recipe for a snack food or any food you wish to make.
- \_\_\_\_\_ Make a visual aide for the recipe, such as a powerpoint, poster, etc. Be creative!
- \_\_\_\_\_ Analyze the nutrition facts for the recipe using online resources (search nutrition calculator ro recipe analysis using google).
- \_\_\_\_\_ Servings per recipe
- \_\_\_\_\_ Calories per serving
- \_\_\_\_\_ Fat per serving
- \_\_\_\_\_ Sugars per serving
- \_\_\_\_\_ Protein per serving
- \_\_\_\_\_ Make the recipe at home and bring it to school to share with your classmates. Remember, they only need a small sample, not a king-sized portion!
- \_\_\_\_\_ Tell the class about your recipe and the nutrition facts. Let us know if it is healthy or unhealthy and your recommendation about eating it (is it a Go, Slow, or Whoa food).

## Option 2: Eating Disorder Research

- \_\_\_\_\_ Decide to research either anorexia, bulimia, binge eating, or any other eating disorder (with teacher approval). \_\_\_\_\_
- \_\_\_\_\_ Define what the eating disorder is and how common it is.
- \_\_\_\_\_ List 10 facts to know about the disorder, with school appropriate visuals.
- \_\_\_\_\_ Make either a PowerPoint, poster, or other visual with the information on it.
- \_\_\_\_\_ Present it to the class.

## Option 3: Nutrition Research



- \_\_\_\_\_ Choose a topic and have it approved by your teacher. Possible topics include the importance of vitamins, being a vegetarian, how the food pyramid works, food allergies, Fast food health facts, or the best foods for building muscle. Or, come up with your own! \_\_\_\_\_
- \_\_\_\_\_ Tell us about the topic by writing a brief introduction or definition.
- \_\_\_\_\_ List 10 facts or details about your topic, along with appropriate visuals.
- \_\_\_\_\_ Make a presentation of your choice- power point, poster, model, book, etc.
- \_\_\_\_\_ Present it to the class.

Name: \_\_\_\_\_ Class Period: \_\_\_\_\_

<b>Option 1: Food Analysis</b>			
<b>Attribute</b>	<b>Description</b>	<b>Points Available</b>	<b>Points Awarded</b>
Visual Aide	Lists recipe ingredients and instructions	10	
	Neatness and Creativity	10	
Nutrition Analysis	Servings per recipe	5	
	Calories per serving	5	
	Fat per serving	5	
	Sugars per serving	5	
	Protein per serving	5	
Recipe Preparation	Bring a sample to share with the class	25	
Presentation	Healthy or unhealthy	15	
	Recommendation for eating this food (Go food, slow food, or whoa food)	15	
		<b>Total Points</b>	

<b>Option 2: Eating Disorder Research</b>			
<b>Attribute</b>	<b>Description</b>	<b>Points Available</b>	<b>Points Awarded</b>
Definition	What is the eating disorder and how common is it?	20	
Facts	10 Facts	50 (5 points each)	
Visual Aide	Correct spelling and grammar	10	
	Creativity and neatness	10	
Presentation	Talk to the class about your topic	10	
		<b>Total Points</b>	

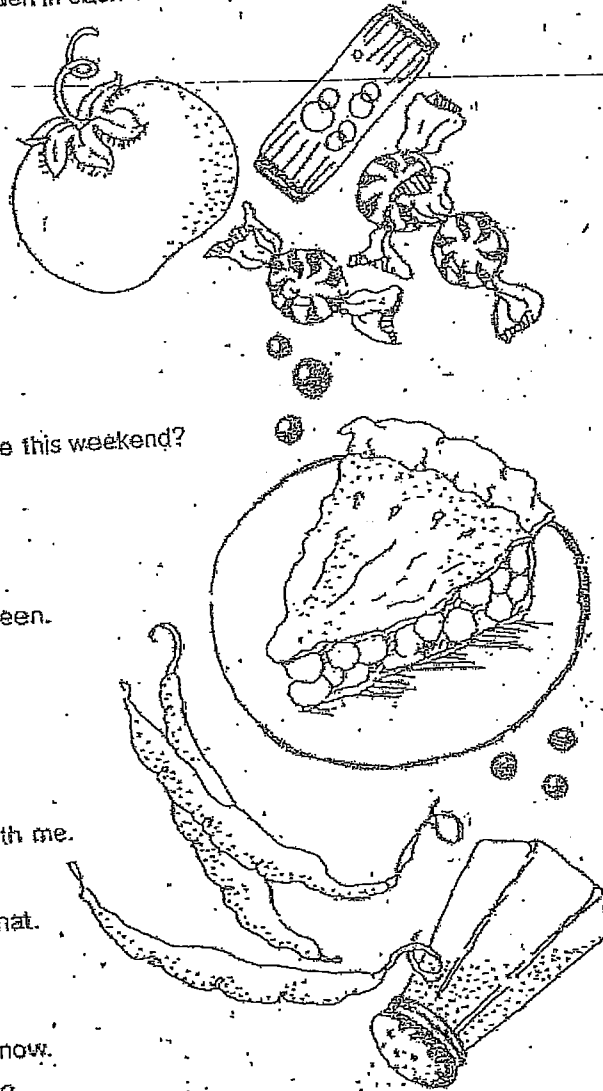
<b>Option 3: Nutrition Research</b>			
<b>Attribute</b>	<b>Description</b>	<b>Points Available</b>	<b>Points Awarded</b>
Definition	What is your topic? How is it relevant?	20	
Facts	10 Facts	50 (5 points each)	
Visual Aide	Correct spelling and grammar	10	
	Creativity and neatness	10	
Presentation	Talk to the class about your topic	10	
		<b>Total points</b>	

REDUCIBLE PAGE

# Food For Thought

Find and circle the food or beverage that is hidden in each of the sentences.  
 Example: The bird could flap each wing.

1. I like pepper on ice cream.
2. The chick enlisted in the army.
3. Don't eat that!
4. Bring umbrellas to school, please.
5. Climb under the chair.
6. Remember rye bread for me!
7. Must Ardith come with us?
8. Busy Rupert went to sleep.
9. Are you going to the Ski-Winter Lodge this weekend?
10. You should come to a stop here.
11. Manya made three drawings.
12. Will you meet me at the park?
13. He will be a nifty monster for Halloween.
14. Isn't Marc a keen guy?
15. See Tom at Orrin's house.
16. My gnu tried to go, too.
17. "Ha, ha," Mary laughed.
18. Grace, Cher, Ryan and Ed went with me.
19. That is all I'm ever going to say!
20. Amanda tried to be as cool as a gnat.
21. Phone your mom right now, Ruth.
22. Look at the cap I earned today.
23. Danny's altered suit fits perfectly now.
24. Can dye come out of a tablecloth?
25. Greg gets all the surprises!



Now you try! Write a sentence and "hide" a food within it! Let others try to find it. You can also write sentences that "hide" animals, colors or names.

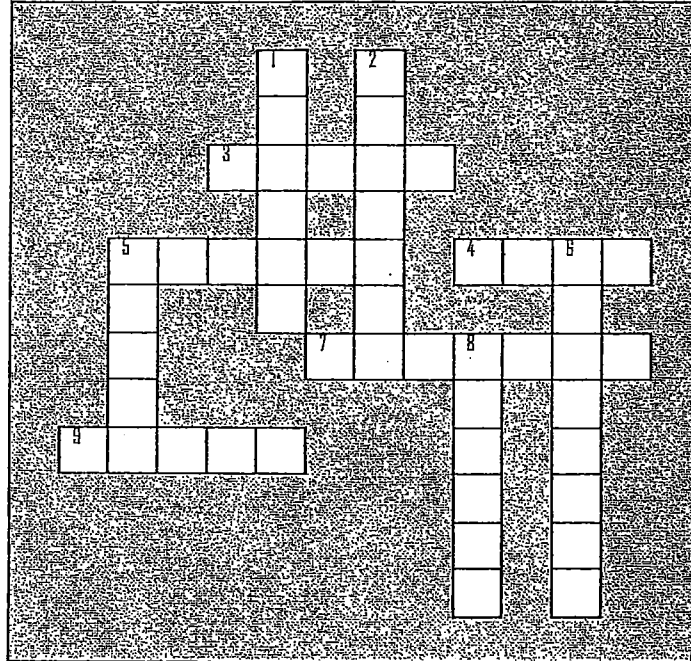
## NUTRIENTS &amp; THE HUMAN BODY

NUTRIENT	WHY DOES OUR BODY NEED THIS NUTRIENT?	WHAT HAPPENS WHEN OUR BODY DOESN'T GET ENOUGH OF THIS NUTRIENT?	NAME 5 FOODS THAT CONTAIN THIS NUTRIENT?	WHAT BODY PART BENEFITS FROM THIS NUTRIENT?
<b>Carbohydrate</b>	Main fuel (energy) source for muscles to work. Only energy source for the brain. Fiber from grains helps digestion.	Low energy; tired and weak muscles; difficulty concentrating and learning; lowers immune system	Grains (pasta, cereal, rice, bread); Vegetables and Fruits (potatoes, carrots, banana); Milk and alternatives (milk, yogurt); legumes (baked beans, hummus)	Muscles; brain; immune system (in the blood)
<b>Protein</b>	Makes muscles, antibodies, hormones, hair, etc.	Lose muscle, lower immunity, poor growth	Meat and alternatives (chicken, tofu, eggs); Milk and alternatives (cheese, milk, yogurt); Grains also have a little protein	Muscles; hormones and immune system (in the blood); hair
<b>Fat</b>	Main fuel (energy) source for body at rest; carries vitamins in body; protects vital organs; keeps body warm	Dry, scaly skin; dry dull hair; poor growth	Meat and alternatives (beef, fish, eggs, nuts); Milk and alternatives (cheese, yogurt)	Skin; hair

# CARBOHYDRATES CROSSWORD PUZZLE

The following words are all food items that contain lots of healthy carbohydrates! Foods like these should make up half of your daily diet.

**TIP:** Use a pencil so that you can erase your answers easily if you have to change them.



## ACROSS

3. Two slices for a sandwich
4. Lots of tiny white grains
5. Vegetable that can be mashed, roasted, fried...
7. Add hot milk to this for some porridge
9. Shaped like a donut, but much healthier

## DOWN

1. Breakfast food in a bowl
2. Usually eaten in "bar" form and often contains nuts
5. Dinner dish from Italy
6. Thin and crunchy snack squares
8. Do you know...the \_\_\_\_\_ man? (He lives on Drury Lane!)

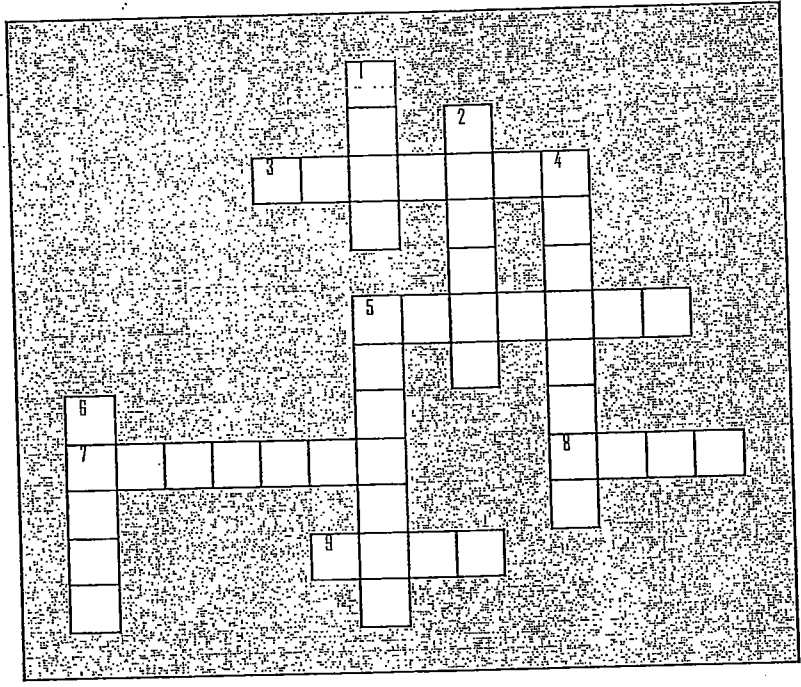
## WORD BANK

OATMEAL  
MUFFIN  
GRANOLA  
CRACKERS  
CEREAL  
RICE  
BAGEL  
BREAD  
POTATO  
PASTA

# FAT CROSSWORD PUZZLE

The answers to the following clues are all food items that are rich in fat. Some have a healthy amount of fat, while others do not. Foods like these should make up only a small part of your diet.

**TIP:** Use a pencil so that you can erase your answers easily if you have to change them.



**ACROSS**

- 3. Not floor-nuts or ceiling-nuts
- 5. Can be bright orange, or pale white
- 7. Smooth, creamy and with a giant pit
- 8. Sunnyside-up, over-easy, scrambled...
- 9. Ocean food for sandwiches

**DOWN**

- 1. Primary source of calcium
- 2. Made by churning fresh cream
- 4. Small, salty and often crammed into a can with oil
- 5. Brown and hairy on the outside, white on the inside
- 6. Fried breakfast food – Careful not to eat too much of this!

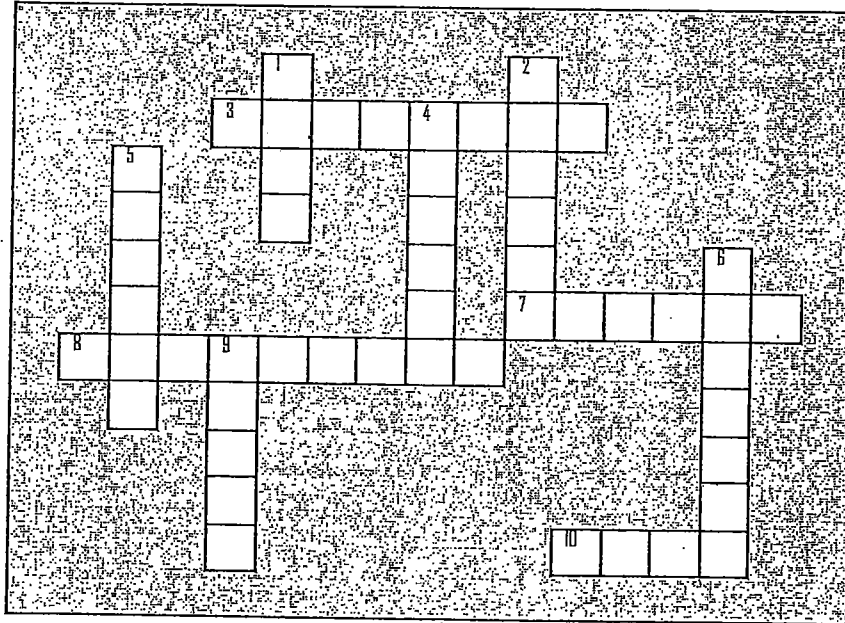
**WORD BANK**

BACON  
 SARDINES  
 MILK  
 EGGS  
 CHEDDAR  
 WALNUTS  
 AVOCADO  
 TUNA  
 BUTTER  
 COCONUT  
 BACON

# PROTEIN CROSSWORD PUZZLE

\*The following words are all food items that are rich in protein. Foods like these should make up about a quarter of your diet.

**TIP:** Use a pencil so that you can erase your answers easily if you have to change them.



**ACROSS**

- 3. Pig meat + Karate move
- 7. A Thanksgiving-must!
- 8. Sliced up and eaten in sandwiches
- 10. Boiled, fried, poached...

**DOWN**

- 1. A meat alternative popular with vegetarians
- 2. Eat this with granola and fruit for breakfast.
- 4. Comes in blocks or wheels, bright orange or white
- 5. Aquatic animal; lots of these in BC!
- 6. "Buy me some \_\_\_\_\_ and crackerjacks"
- 9. Rare, medium or well done

**WORD BANK**

- PORKCHOP
- EGGS
- YOGURT
- STEAK
- ROASTBEEF
- PEANUTS
- SALMON
- TURKEY
- CHEESE
- TOFU



# HUMAN BODY

**BRAIN**

Nutrient \_\_\_\_\_  
Food \_\_\_\_\_  
Food \_\_\_\_\_

**HAIR**

Nutrient \_\_\_\_\_  
Food \_\_\_\_\_  
Food \_\_\_\_\_

**MUSCLES**

Nutrient \_\_\_\_\_  
Food \_\_\_\_\_  
Food \_\_\_\_\_

**STOMACH/DIGESTION**

Nutrient \_\_\_\_\_  
Food \_\_\_\_\_  
Food \_\_\_\_\_

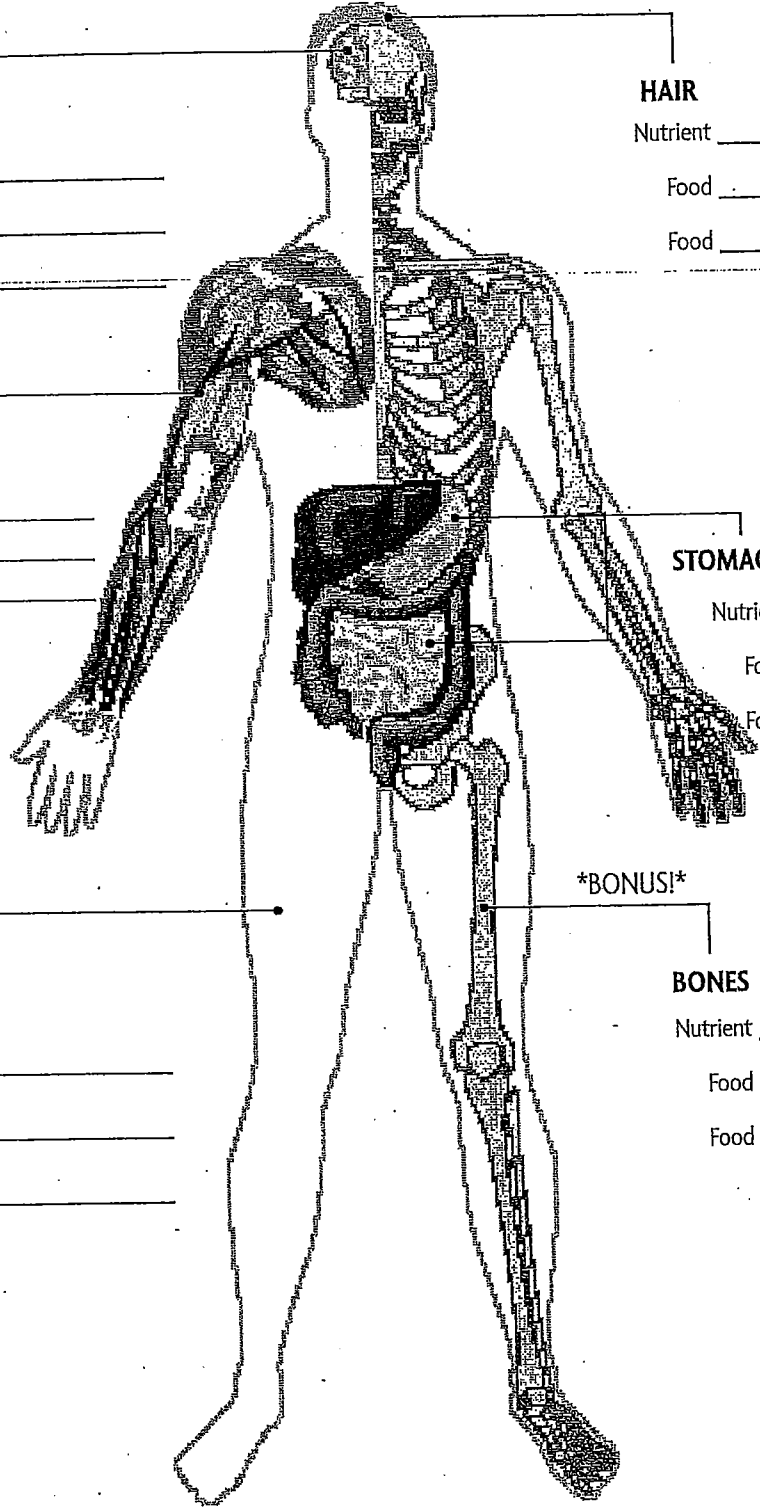
**SKIN**

Nutrient \_\_\_\_\_  
Food \_\_\_\_\_  
Food \_\_\_\_\_

**\*BONUS!\***

**BONES**

Nutrient \_\_\_\_\_  
Food \_\_\_\_\_  
Food \_\_\_\_\_



Name:

Date:

BILL NYE NUTRITION VIDEO

1. You are made of \_\_\_\_\_.
2. There are special things in food called \_\_\_\_\_.
3. \_\_\_\_\_ is where you get your energy.
4. What 3 things do you need from food to stay healthy?
5. \_\_\_\_\_ come from fish, beans, and meat.
6. \_\_\_\_\_, skin, and hair are made from proteins
7. List 2 things fats are used for.
8. \_\_\_\_\_ are a measure of heat energy.
9. Food \_\_\_\_\_ = amount of heat energy needed to raise \_\_\_\_\_ L of water \_\_\_\_\_ °C.
10. How many calories are in a banana?
11. Minerals come from the Earth's \_\_\_\_\_. Do you have to eat rocks to get minerals? \_\_\_\_\_ Eat \_\_\_\_\_ instead!!! \_\_\_\_\_ is a mineral, it's a nutrient, that you get from your food. You need \_\_\_\_\_ for your \_\_\_\_\_ blood cells and your \_\_\_\_\_.
12. The amount of iron you need every day is \_\_\_\_\_.
13. Broccoli has the mineral: \_\_\_\_\_.
14. What 3 minerals are found in an apple?
15. \_\_\_\_\_ fats are solid fats.
16. What foods contain carbohydrates?
17. If you eat things made from animals like milk, eggs, and meat you are getting what are called \_\_\_\_\_ proteins. These are proteins your body doesn't make for itself.
18. Fruits and vegetables do not have complete proteins but if you eat certain plants together they have \_\_\_\_\_ proteins that can be eaten together to make complete protein.
19. Two examples of complimentary proteins are: \_\_\_\_\_ & \_\_\_\_\_ and \_\_\_\_\_ & \_\_\_\_\_.
20. Your body needs \_\_\_\_\_ ml of fat a day.
21. \_\_\_\_\_ provide you with protein, minerals, and fiber.
22. What are "empty calories"?
23. What foods contain fiber?

# Reading Food Labels

Learning to read food labels will help you choose more healthful foods. Food labels contain information about the amount of fat and calories per serving, and the nutritional value of the food in relation to the recommended total daily diet. Food labels also tell you how many servings there are in the container and how large each serving is. The percent daily values are based on a daily diet of either 2,000 or 2,500 calories. You can decide whether or not to eat the food based on your daily calorie goals and the percent daily values of fat, sodium, and other nutrients.

NUTRITION FACTS	
Serving Size 1/2 cup (112g)	
Servings Per Container 4	
Amount Per Serving	
Calories 200	Calories from Fat 90
% Daily Value*	
Total Fat 10g	15%
Saturated fat 5g	25%
Cholesterol 20mg	7%
Sodium 360mg	15%
Total Carbohydrate 24g	8%
Dietary fiber 4g	16%
Sugars 10g	
Protein 4g	
Vitamin A 0%	• Vitamin C 0%
Calcium 0%	• Iron 0%

\*Percent Daily Values are based on a 2,000 calorie diet.

- If a person ate all the food in this container, how many servings and calories would he or she consume?  
 \_\_\_\_\_ servings  
 \_\_\_\_\_ calories
- What percent of the total fat in this food is saturated fat? \_\_\_\_\_
- What percent daily value of vitamin C is in this food? \_\_\_\_\_
- Is this food a source of dietary fiber?  
 \_\_\_\_\_
- How much protein is there in three servings of this food? \_\_\_\_\_

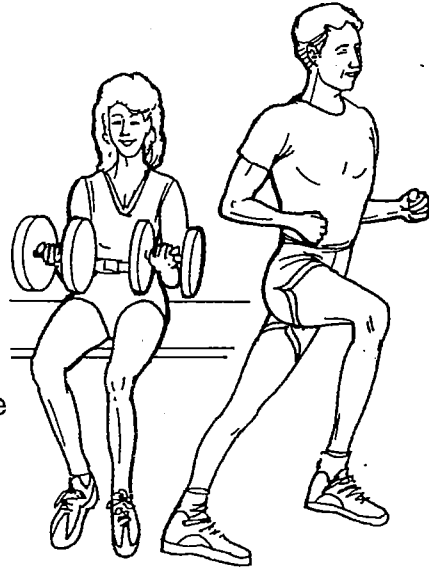
Food labels list ingredients in decreasing order by quantity. For example, if flour is listed first, this means there is more flour in the food than any other ingredient. Some labels list sugar in its various forms (sucrose, fructose, and/or glucose). This can make it look like the product contains less sugar than it actually does.

INGREDIENTS: WHOLE WHEAT, WHEAT BRAN, SUCROSE, HIGH FRUCTOSE CORN SYRUP, SALT, MALT SYRUP, ANNATTO, TURMERIC, ASCORBIC ACID (VITAMIN C), REDUCED IRON, ALPHA TOCOPHEROL ACETATE (VITAMIN E), NIACINAMIDE (NIACIN), ZINC OXIDE, VITAMIN A.

- Which ingredient in the list is present in the largest amount? \_\_\_\_\_
- Does this food contain sugar? Explain.  
 \_\_\_\_\_  
 \_\_\_\_\_
- Which ingredient in the list is present in the smallest amount? \_\_\_\_\_

# Exercise

Regular exercise can help you live a longer, healthier life. Exercise is beneficial in many ways. Endorphins, substances in the brain that help reduce pain and stress, are released during and after exercise, making you feel relaxed and happy. Exercise also helps muscles and joints grow stronger and bones grow thicker. Thicker bones reduce the risk of fractures and a debilitating disease called osteoporosis, which sometimes develops as a person ages. When you exercise regularly, your heart pumps blood more easily and your lungs work more efficiently. Exercise can also help regulate cholesterol levels, control stress, and maintain body weight. When combined with a healthy lifestyle, exercise may help protect against cancer and heart disease.



An exercise program should include both aerobic activity and strength training. Aerobic exercise, such as jogging or swimming, helps the body use oxygen more efficiently. Aerobic exercise also burns calories and strengthens the heart. Strength training, such as weight lifting, builds muscles and strengthens bones. Of course, before beginning any exercise program, a person should consult a physician.

When exercising, one should begin with a five minute warmup period to increase blood flow and prepare joints and muscles for harder exercise. Exercise should end with a five minute cool down period, which helps slow the heart rate and reduce body temperature. It is best to exercise for thirty minutes at least three times a week.

1. What happens during and after exercise that affects your state of mind?

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2. What are the physical benefits of exercise?

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3. Explain why an exercise program should include both aerobic activity and strength training.

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4. Design a weekly exercise program that you can follow. Continue writing on the back of this page.

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NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

# YOU ARE WHAT YOU EAT

Q N V Z W X Z B S V A G N M E T C H Y O G U A R T W B P I E  
M N M C B I H M I A V X V E E B N Y C M O U P N T T B U M O  
L E Q C T V P G Z B K L I D N K I R S M K G N L X A B D H H  
K A U E B Y S A M O F M T L I B Z W L I D S P I H D G M Y E  
L B N V U R D T Y X U J A K D L T K A L E K F W E R E B I F  
A A W S G M D Y J L A Y M H S T Y J U E M F R U I T S W X K  
Y E X T H B B Q F H C C I Z J O G S N H S A K V S N O F W O  
E P Y A R S E S C J X M N W S F W E Y W B O P P N M Y R P C  
A H A F U U F S B K A N Z H T U R E N V D P Q V T U R G P H  
W V W O Q Z C R F F W W A X Z G T B T A R D H Y T J M S T O  
H O W X B H V L G U E N N R Y G D O E V E G E T A B L E S S  
G B E F F G F C M F Z T J H H Y E I O A A H Q Z R C A H E L  
X D C Y P A S E T A R D Y H O B R A C B Z W A T E R W E R A  
W P J T T H E D C X C R R G T K S G K G T U Q V Z O V F T R  
U E P Y N V D E H B L J T P P I J G X D D G F J J Q E E I E  
S G S W H I V C X Y N R V Z U M K P Y G L K L N Z E Q R L N  
X G P E F T G Q H Q X E Z N H K W Q B A D V C T S Q J Z K I  
D W O N Y A C A Q D H D S D P X G F S L W C C D W F X C R M  
Z B K U N M L P F W E H E I C F P S C B N I A R B T I M L A  
T R N O C I F B M L I T E L P V E M E W L K G V A T X A Z V  
R E S T R N J X E N R W Q V P S B V M U L B C J S C L Q W B  
T A C U Q S O N E D L O C E Z M C C F T K A M N P M B N G J  
B K T M K Q V D S W R W I R O V I I P E L M X B E Q X F C F  
U F A M C W O J C R J K Z M B L B S O C Y W M E E C D B S H  
L A V R L R V P Y W S E E H K J N K I A T U K K L P J P E N  
V S D C S E I R O L A C O E Z O R U X C S Z S B S P T Y Z P  
P T U P E V G J C J R E E V R C M Z N C L X R E N P M D N T  
H Y B Q U U K U D S V R I I J G E J L O T B E O I U S O S L  
L N M M S P Q A S A E E F C U L U E S H M Q G K X L C J C B  
Y D Q A O A X Y I P I M K U J H S X Z B C S L S A S N K Y E

- CARBOHYDRATE:
- PROTEIN
- FATS
- WATER
- MINERALS
- VITAMINS
- VITAMIN
- SUNSHINE
- CALCIUM
- ZINC
- IRON
- FIBER
- MUSCLES
- BRAIN
- TOFU
- CALORIES
- BREAKFAST
- FRUITS
- VEGETABLES
- ENERGY
- LITRES
- GLASSES
- GREEK
- YOGURT
- SIMPLE
- COMPLEX
- SLEEP