Take the Pledge

Directions: Read and practice the "Healthy Habits Pledge." When you are ready, recite it to a friend or family member. Sign your name at the bottom of the pledge when you have completed this activity and bring the page back to school.

I pledge to stay healthy and clean through exercise and good hygiene.

I will eat balanced meals every day to have more energy to learn and to play.

Every night I will get a good rest to be more ready to do my best.

If I work hard to be healthy and strong I'll be happier my whole life long.

Ι,	 						 		 /	h	av	e	re	eac	d d	an	d	lec	ırr	ec	l †	he	· -	lec	al t	h)	/ ŀ	łα	bi	ts	Ρ	le	dg	je.	
	 	 	_	 _	_	_	 	 			_	_	_	_							_				_	_		_	_		_				

Directions: Write at least one personal health goal you would like to meet this week. Check in a week and see how you're doing at meeting your goal. Read the pledge again and continue adding goals using your "Personal Health Goal" journal page.

	's Personal Goal	Met	Not Yet
Week	_		
My personal goal this week is to			

Introducing the 5 Food Groups

	Fre	uits	
apples apple juice apricots bananas blackberries blueberries cantaloupe cherries	grape juice grapefruit grapefruit juice grapes honeydew kiwi fruit lemons limes	mangoes nectarines orange juice oranges papayas peaches pears pineapples	plums raisins raspberries starfruit strawberries tangerines watermelon
	Culinary or Fr	uit Vegetal	oles
avocado cucumber	green beans green peppers	pumpkin squash	red peppers tomatoes
	Veget	tables	
artichoke asparagus bean sprouts beets black beans bok choy broccoli Brussels sprouts cabbage carrots	cauliflower celery collard greens corn dry black-eyed peas eggplant garbanzo beans (chickpeas) iceberg lettuce kale	kidney beans leaf lettuce lentils lima beans mushrooms navy beans onions peas pinto beans potatoes	romaine lettuce soybeans spinach split peas sweet potatoes taro turnips watercress wax beans white beans

Important Distinctions

We define *fruit* as the sweet, fleshy part of a plant. Any part of a plant we eat that is *not* the fruit might be considered a vegetable. By this definition, vegetables can include *leaves*, *stems*, *roots*, *flowers*, *bulbs*, and *seeds*.

Culinary or Fruit Vegetables—We know that *fruit* refers to the flowering part of a plant in which seeds develop. By this definition, many foods we consider vegetables are actually fruits. Often, these foods are prepared or eaten as vegetables, so we call them "culinary vegetables" or "fruit vegetables."

Teacher Note: This book refers to the five food groups as listed on ChooseMyPlate.gov *http://www.choosemyplate.gov*. The tables on pages 9 and 10 list foods in their true columns. See the notes above for exceptions for purposes of discussion with students.

Introducing the 5 Food Groups (cont.)

	Gra	ains				
W	hole Grains		Refined	d Grains Food		
amaranth	rye		cereals			
barley	sorghum		corn to	rtillas		
brown rice	triticale		cornbre	ead		
buckwheat	whole grain	cereal	couscou	ıs		
bulger (cracked whe	at) whole whea	t bread	cracke	rs		
cornmeal	whole whea	t crackers	flour to	ortillas		
millet	whole whea	t pasta	grits			
muesli	whole whea		noodles			
oatmeal	whole whea		pasta			
popcorn	wild rice		pitas			
quinoa			white b	pread		
rolled oats			white r			
		•	***************************************	100		
	Da	iry				
cheddar cheese	Greek yogurt	parmesan ch	neese	swiss cheese		
cottage cheese	milk	pudding		yogurt		
frozen yogurt	mozzarella cheese	ricotta chee	se			
	Pro	tein				
almonds	eggs	nuts		shellfish		
beef	fish	peanuts		soybeans		
bison	goose	pecans		split peas		
black beans	ham	pinto beans		sunflower		
black-eyed peas	hazelnuts	pistachios		seeds		
cashews	kidney beans	pork		tuna 		
chicken	lamb	pumpkin see	eds	turkey		
chickpeas	lima beans	rabbit		veal		
(garbanzo beans) duck	navy beans	sesame see	ds	venison walnuts		
uuck				walliuis		

Exercise of the Day

Here are some exercises you can do to start the day or during a "movement break" in the classroom. Challenge yourself to do a few more repetitions each time you do the exercise. Remember though, it is more important to do them correctly to protect your muscles and joints than it is to do them fast!

	Pretend to hula-hoop for 30 seconds. Move your hips!
Ш	Hop on one foot 10 times then on the other foot 10 times.
Ш	Run in place for 1 minute.
	Do 30 jumping jacks.
	Hold your arms out shoulder height. Make 10 small circles with your arms. Reverse directions and do 10 more. Then make 10 large circles with your arms. Reverse directions and do 10 more.
	Do windmills. Bend at the waist and touch your left hand to your right foot and then switch sides. How many windmills (one left, one right) can you do in 1 minute?
	March in place for 1 minute. Swing your arms forward and back and lift your knees waist high (if you can).
	Pretend to climb stairs for 1 minute.
	Stand with your feet about 6 inches apart. "Sit back" and do 15 squats. Try not to have your knees go past your toes.
	Do 10 lunges on each leg. Your knee should be above your ankle, and not any farther.
	Do as many pushups with your hands on your desk as you can. The next time, try to improve your score.
	How many crunches can you do in 30 seconds? Remember, you have to have your elbows touch your knees each time.
	Do chair squats. Stand up just before you sit in your chair.
	Sit on your chair and move your legs as if you are riding a bicycle.
	Do calf raises. Stand on your tiptoes and reach your hands straight out or straight up.
	Do standing standing leg raises. Place your hands on the back of a chair, bend your knee, and raise your leg perpendicular to floor.
	Do wall pushups for 30 seconds.
	Do 10 wall squats, with your back flat against the wall.
	Do 10 leg raises for each leg. Sit on your chair, raise one leg, then straighten it, and then put it back down.
	Raise both legs at the same time while seated. How many times can

you do this in one minute?

Exercise of the Day (cont.)

Explain to students that deep breathing, bending, stretching, and balance exercises help us to relax and to focus. Relaxing helps take away stress. When we return to our schoolwork after a bit of physical activity or a deep breathing exercise we can think more clearly.

As a group, agree that each person will focus on his or her own movements. No one will tease or bother anyone else.

arry offic c	isc.
Breath	ning Activities
Steady b	reathing can help you calm down and relax. See which of these techniques works best for you.
	Close your eyes and pull air as deep into your lungs as you can. Feel them expand. Breathe out as much air as you can. Keep each breath steady.
	Breathe in for the count of four. Hold the breath for the count of four. Breathe out for the count of four. Try not to take another breath for the count of four. Then try breathing in and out for 5, then 6, etc.
	Breathe in through your nose. Breathe out through your mouth, quietly saying "haaa." Focus on the breathing "out." Your body will do the breathing "in" for you.
Balanc	ing Exercises
	Balance on one foot for 30 seconds. Hold the other leg up with a bent knee. Then balance on the other foot. Try this exercise with your eyes closed.
	Walk on a straight line (tape or a line on the floor) for 20 paces. Try it with your hands stretched out from your sides, then try it with your hands straight down next to your sides. Which is easier?
Stretc	thing Exercises
your neig stretch fa importan	not all flexible in the same way. Treat your body with respect and don't try to do what ghbor is doing. Do a stretch that feels good for your own body. With practice, you may arther, but you may not. It depends on how flexible your body can be. That is why it is not to respect your own body and not be competitive. The goal of these exercises is to relax and be able to focus on your work.
	Sit and bend from your waist to the right, then to the left. Do this 15 times on each side.
	Stand with your legs apart. Bend over from your waist, bending your knees a little. Let your arms hang down. Sway gently side-to-side.
	Sit on the floor and put the soles of your feet together. Sit up straight as tall as you can. Imagine there is a string attached to your head (like a puppet) gently pulling you up.
	Lie on your belly. Breathe in. Relax as you breathe out. Bend your knees and hold your ankles behind you. Breathe in and gently lift your head, chest, and legs off the floor. Lift your head and feet toward the ceiling to stretch. Breathe out as you come back down to

as far.

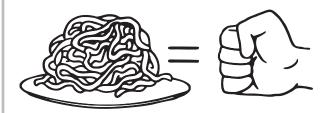
the floor. Some people will be able to stretch up a lot and others not

Steps to Healthy Eating

1. Choose servings the size of your fist.



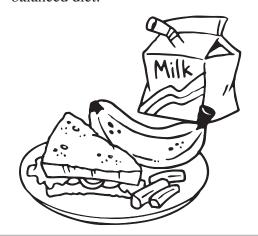
Have fruits and vegetables on half of your plate. Can you do it for all three meals?



3. Enjoy water as your favorite drink. Make it a habit!



4. Eat foods from each food group for a balanced diet.



5. Choose foods with less sugar and fat to avoid "empty" calories.

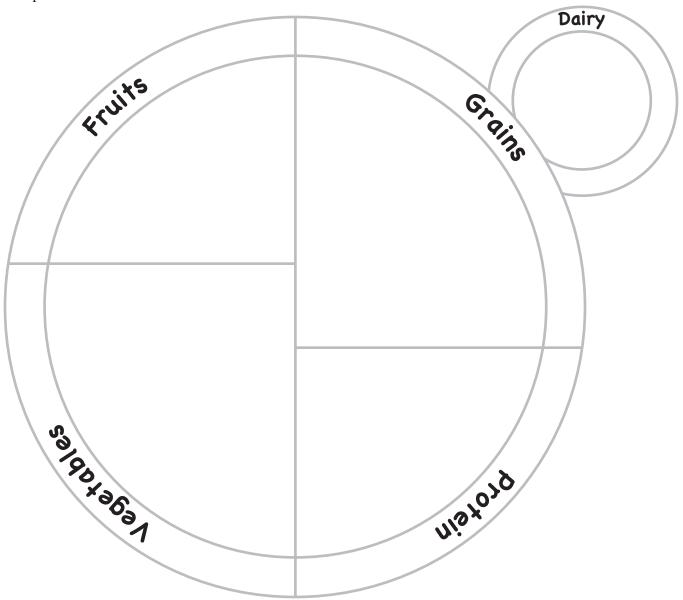


Food Groups

One way to stay healthy and strong is to eat foods that are good for us. Healthy foods have important nutrients we need for our growth and development to keep our bodies healthy in many ways.

We make choices about the food we eat each day. One way to make healthy choices is to eat different kinds of food. We divide the food we eat into 5 groups—*Fruits, Vegetables, Grains, Dairy,* and *Protein.* It is best if we eat foods from each food group every day. Eating a variety of foods will help us get all the different nutrients we need.

Directions: What foods do you think might belong in each food group? Write or draw your ideas on the plate.



Teacher Note: The outline above is based on the USDA MyPlate graphic. See page 5 for information and the website.

My Plate

Directions: Think about the foods you ate yesterday for breakfast, lunch, snacks, and dinner. Write them in the correct spaces on the chart. Add foods that don't fit in the five food groups in the section titled "Other" at the bottom.

	The F	ive Food G	roups	
Protein	Dairy	Vegetables	Fruits	Grains
		Other		
1. Which food gro	oups might you need	to eat more of?		
Why?				
2. How might you	change what you eat	to have a more balar	nced diet?	

Think About Fruit

Fruit is one of the healthy food groups. We define *fruit* as the sweet, fleshy part of a plant that has the seed or seeds of the plant. Eating fruit helps keep your heart healthy. A healthy heart pumps blood through the body effectively. Healthy foods, like fruits, also lower the risk of disease, such as cancer and diabetes. Fruit has many vitamins and other nutrients, including the following:

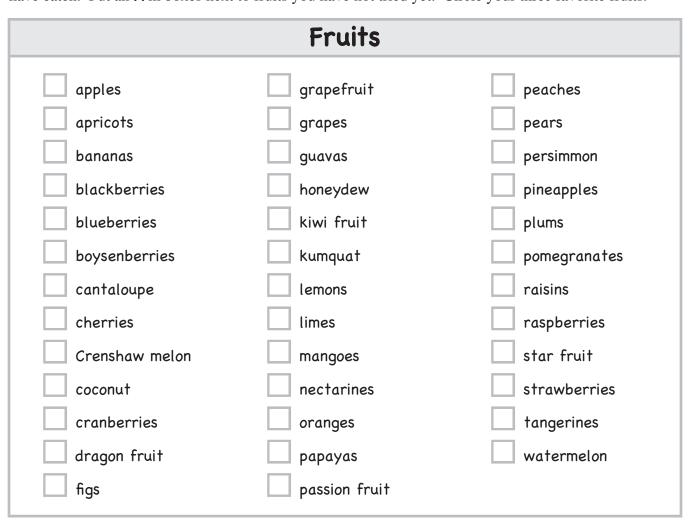
Vitamin C—Vitamin C helps our bodies heal if we get a cut. It helps tissues inside our bodies heal, too. It helps us have strong bones and teeth.

Potassium—Potassium helps our nerves and muscles function the way they should. It helps our hearts beat properly.

Fiber—Fiber helps us digest our food so our bodies can use it for energy.

Folic Acid—Folic acid is a type of B vitamin. It helps our bodies make red blood cells. Red blood cells carry oxygen from our lungs to all parts of our body.

Directions: Did you know there were so many different fruits? Check the boxes of the fruits you have eaten. Put an **X** in boxes next to fruits you have not tried yet. Circle your three favorite fruits.



Vitamin C

Potassium Fiber

Protein

Think About Fruit (cont.)

Directions:

- 1. Use the list of fruits on page 16. Research two fruits that are new to you.
- 2. Fill in the information about each fruit and draw a picture of it.

	Fruit:	Fruit:
İ	Color:	Color:
Ī	Shape:	Shape:
	Size:	Size:
İ	It comes from	It comes from
į	It is good for me because it has	It is good for me because it has
L		
	ections: Use page 16 to help answer the follow	
1.		sium helps my
	and work well.	
2.	Apples, berries, and figs are good sources of fibe	er. Fiber helps digest foods to give me
3.	Oranges and grapefruit are a good source of foli	c acid, which makes red
4.	Red blood cells carry oxygen from our	to all parts of our body.

How Does Fruit Grow?

Most of us buy fruit from a store, but where does fruit come from? How does it grow?

- Some fruits, like oranges and apples, grow on trees. Many fruit trees need cross-pollination. This means they need to have pollen carried from one variety of tree to another tree to produce fruit. For example, a Red Delicious apple tree can be pollinated by a Jonathan apple tree. Insects, birds, and the wind can carry pollen from one tree to another.
- Fruits like blueberries grow on bushes. Blueberries will produce more fruit if they have other plants for pollen. Strawberries grow on bushes very low to the ground.
- Raspberries grow on thorny brambles, also known as canes.
- Grapes grow on vines. Most vine fruits need a warm climate with a long growing season. This fruit takes patience to grow because it ripens best on the vine. Most vine fruits, except kiwi fruit, do not need other plants for pollen.

Directions: Work with a partner to brainstorm a list of different fruits. Write each fruit in the correct column to show how it grows. If you don't know, do some research. Discuss which kinds of fruits grow in your area. Add them to the list and put a star next to them.

Tree Fruits	Bush Fruits	Bramble Fruits	Vine Fruits

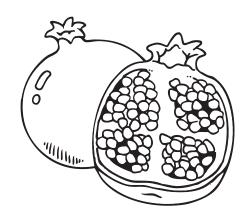
Challenge: We call peppers vegetables, but they are actually fruits. They have seeds on the inside.

- 1. How many "fruit vegetables" like peppers can you think of that grow on vines?
- **2.** Research to learn more about fruits that grow on vines that we eat as vegetables. What did you learn?

Fruit Seeds We Eat

Pomegranates have been around a long time. It takes just the right amount of sun and water to grow pomegranate fruit. Pomegranates grow on large bushes or small trees. The fruit is about the size of a medium orange. The fruit has red-pink skin that is like leather.

People eat the seeds of the pomegranate. The small seeds provide fiber. Pomegranate juice is very good for you, too. Pomegranate juice has vitamins C and E, potassium, and iron.



How do you get seeds out of a pomegranate? That can be tricky! Try this with an adult:

1. Cut the top off the pomegranate.





2. Slice it into sections.



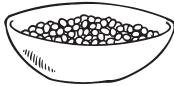
3. Break the sections into pieces. Pull the skin (membrane) off each section.



4. Flip the sections open and rub the seeds off the inside of the skin.



5. Soon you will have a bowl of pomegranate seeds. Be careful when you handle the fruit, eat the seeds, or drink the juice, because it stains.



Learn About Mangoes

It can be fun to try a new healthy food. Mangoes are a delicious tropical fruit. They taste a bit like peaches, but the flesh has more fiber. They can be sweet or tart. Mangoes are a *stone fruit*, like a peach or plum, with a single, large seed or "stone" in the center. They grow best in climates that have warm, dry seasons alternating with warm, wet seasons. Different varieties of mango ripen at different times. Mangoes can be harvested from May to September depending on the type.

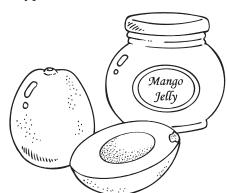
What does a mango look like?

Shape: Mangoes can be nearly round, oval, or oblong. They are sort of lop-sided in shape.

Size: There are many varieties, from 2" to 10" long, and weighing from a few ounces to 4 or 5 pounds!

Skin: The mango's smooth skin is leathery and waxy. The skin can be green, yellow, orange, or pink. Some mangoes have dark red skin with small yellow, green, or red dots.

Flesh: The flesh of the fruit can be pale yellow to deep orange.



Directions: Use the information above to color the mango. How many different color variations of a mango did your classmates come up with? Which color was the most common? Least common?

How can mangoes be enjoyed?

People eat mangoes as a fresh fruit, sliced, or in salads. Mangoes can also be preserved as jam or eaten as a dried fruit. In other countries, people eat green mangoes or use them in dishes such as green chutney. Some people take the seed out of an unripe mango and roast it for a snack. Researchers have even suggested the fat from the seed be used in chocolate!

Where do mangoes come from?

India grows over half of the world's mango crop. They ship processed and fresh mangoes to countries around the world. Many mangoes are shipped from India to England and France. Fresh mangoes from the Philippines are shipped to other Asian countries. The United States gets its fresh mangoes from Mexico or the state of Florida.

Directions: Answer the questions below. You may need to do some research or look at a map.

1.	Which part of the country or world that grows mangoes is closest to where you live?
2.	Based on the text, where do you think the mangoes you buy in the store come from?
3.	Write a sentence about your experience with mangoes. If you have not tasted a mango, what do you think you would like about it?

Talk About Fruit

Many people like to eat fruit because it is a healthy food choice. It is fun to try new ways to eat it. We can learn about different fruits from our friends.

Directions: Fill in the blanks. Find classmates who have done each of the things listed on the chart. Have that person write his or her name and other information in the correct square. Try to have a different person write in each square.

1.	2.	3.
has tried a yellow tropical fruit. It was a	has had dried fruit. It was	has had apples on a pizza.
4.	5.	6.
thinks starfruit is tasty.	has seen an orange tree or a lemon tree.	has picked berries. They were (name of berry)
7.	8.	9.
has grown fruit in a garden. He or she grew	has had watermelon at a picnic.	has picked fruit from a tree. He or she picked
10.	11.	12.
favorite cooked fruit is	likes fruit salad made with and	has had kiwi fruit. He or she eats it (check box). cut in half, and scooped out with a spoon. peeled and sliced.

Think About Vegetables

Vegetables are good for us. They have vitamins and other nutrients to keep us healthy. Vegetables keep our hearts healthy and strong. They also provide:

- Vitamin C to help our bodies build strong bones and teeth.
- Vitamin A to keep our skin healthy.
- **Folic Acid** to help our bodies make new red blood cells. They carry oxygen to all parts of our bodies.
- **Fiber** to digest the other food we eat.

Directions: Read this list of different vegetables. Check the boxes of the vegetables you have eaten. Put an **X** next to the vegetables you have not tried yet. Circle your three favorite vegetables.



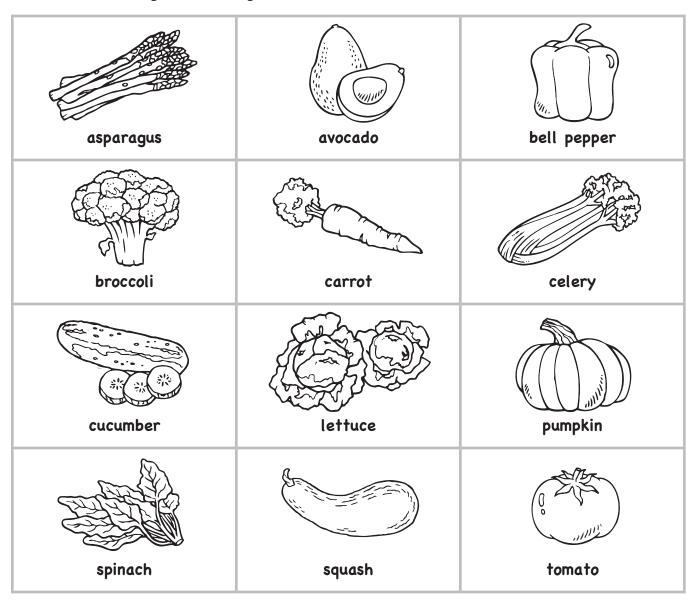
Vitamin A

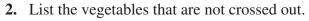
	Vegetables	
artichoke	garbanzo beans	rhubarb
asparagus	iceberg lettuce	romaine lettuce
bean sprouts	kale	rutabagas
bok choy	kidney beans	snow peas
broccoli	leaf lettuce	soybeans
Brussels sprouts	lentils	spinach
cabbage	lima beans	split peas
carrots	navy beans	sweet potatoes
cauliflower	olives	taro
celery	onions	turnips
collard greens	parsnips	water chestnuts
corn	peas	watercress
dry black-eyed peas	pinto beans	wax beans
eggplant	potatoes	white beans
endive		
lenge: Write the names of tw	o vegetables that are new to you	1.
arch these two vegetables Wri	te a sentence about each one on	the back of this page.

Culinary or Fruit Vegetables

Fruits and vegetables are both healthy foods. Think back to how we define a fruit. *Fruit* is the flower part of a plant in which seeds develop. Many foods we consider vegetables are really fruits because they have seeds inside. We cook or eat these foods as vegetables. We call them "culinary vegetables" or "fruit vegetables."

1. Cross out the vegetables in the grid that do *not* have seeds inside.



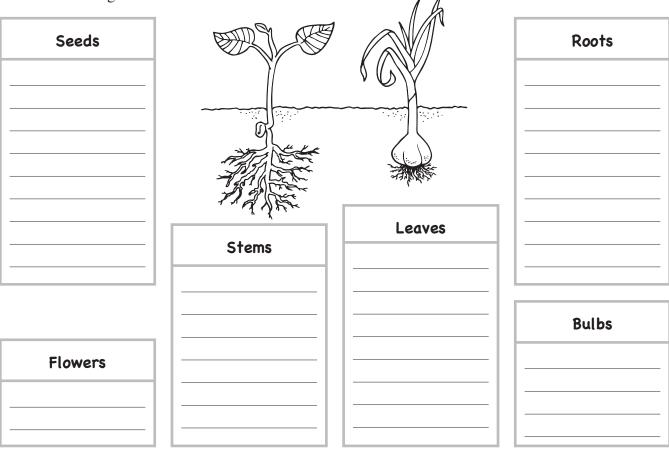


3. What is another name for these vegetables? _____

Plant Parts

Many plants have parts that are safe for people to eat. Any part of a plant we eat that is *not* the fruit we think of as a vegetable. Vegetables can be a plant's *roots*, *stems*, *flowers*, or *leaves*. We also eat some *bulbs* and *seeds*.

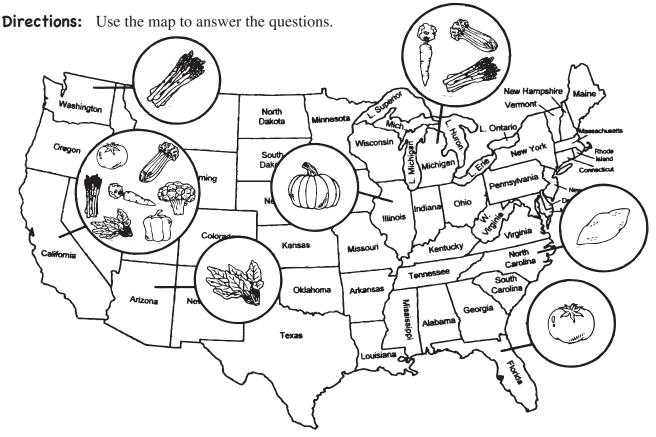
Directions: Determine into which box each vegetable in the Word Box should go. Some vegetables may go in more than one box. Do we eat the stem, the flowers, the roots, the leaves, the bulbs or the seeds of each vegetable?



Word Box								
asparagus bamboo shoots beets black beans bok choy broccoli Brussels sprouts cabbage carrot	cauliflower celery collard greens corn garlic kale kidney beans leeks lettuce	lima beans onion parsley parsnip peas pinto beans potato pumpkin seeds radish	rhubarb rutabaga spinach sunflower seeds sweet potato turnip water chestnuts watercress yam					

Where Do Our Vegetables Grow?

Sometimes it's easier to eat healthy foods if they are grown nearby. We might go to a farm or farmer's market to buy fresh produce. Many vegetables grow all around the country. But some states grow most of a particular vegetable sold in stores. The map below provides some examples. Have you tried the vegetable(s) grown there?

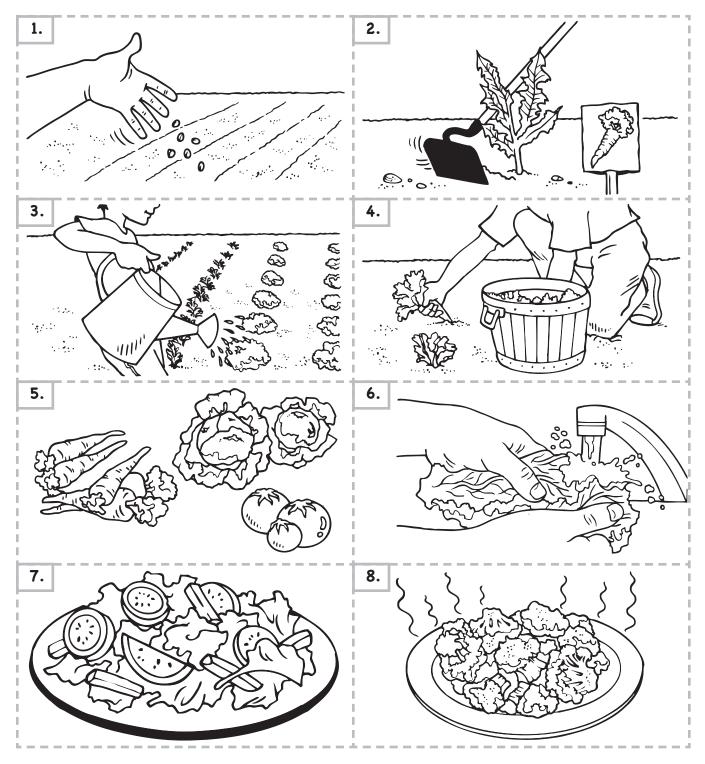


- 1. Which state provides most of the pumpkin we use for cooking?
- 2. Which vegetable is grown in Washington state?_____
- 3. What observation can you make about California from reading the map?
- _____
- **4.** How would this information be useful if you owned a grocery store?
- _____
- 5. Which of these vegetables have you tried or would you like to try fresh from the field or a farmer's market?

Garden to Plate

Let's think about how vegetables get from a farm garden to our plates. Look at the pictures and discuss the steps in the process.

Directions: Create a book or poster. Cut out the pictures, arrange them in order, and describe each step. Add a cover page.



Farm to Store

Think about how vegetables get from a farm to a store. What are the steps in the process? Label each statement with the part of the process it represents: **production**, **processing**, **transportation**, or **distribution**. Cut out the statements and arrange them in order on a separate sheet of paper.

Vegetables are packaged to ship.
Farmers plant seeds.
Produce is sorted and cleaned.
Machines plow and prepare the soil.
Vegetables are sold in stores.
Vegetables are harvested.
Plants are watered, given nutrients, and weeded.
Vegetables travel by truck to the store.

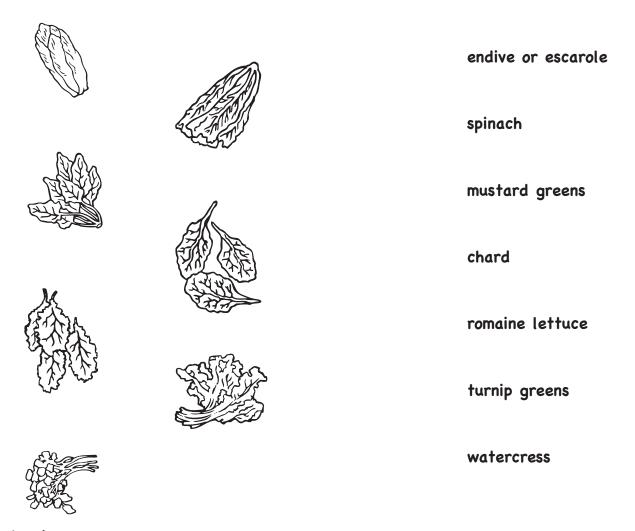
Green Is a Great Color

Green vegetables strengthen our immune system. This means they help keep us from getting sick. The nutrients in green vegetables help blood circulate through our bodies and give us energy. The vitamins in these foods help our blood clot when we are cut.

Many dark green vegetables are from the leaf of the plant.

- Vitamin C helps wounds heal.
- Vitamin A helps our organs work properly.
- Vitamin E helps our immune system, and it keeps our hair and skin healthy.
- Vitamin K helps our blood.

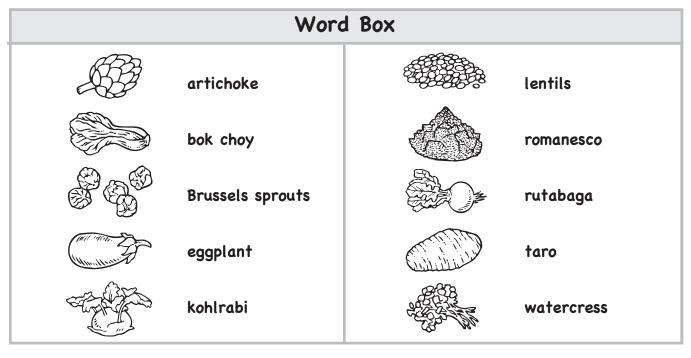
Directions: Do some research about the vegetables below. Then, draw a line from the vegetable to its name and color it.



Extensions: Salads are not the only way to eat these vegetables. Ask a family member to chop them up and add them to soup. Blend a few greens with your favorite fruits when you make a smoothie. You won't even be able to taste the greens! Some green vegetables taste good roasted. Have a family member help you roast some broccoli or other greens mixed with other vegetables.

New Vegetables

Look at the vegetables and pictures listed in the Word Box. Circle the ones you have already tried.



Directions: Match each vegetable to its clue.

10. These legumes are shaped like contact lenses.

- 1. This vegetable grows just slightly above the ground.
- This veggie is named for a city.
- 3. This food is a flower bud that has not yet bloomed. _____
- **4.** This vegetable is grown in the tropics.
- **5.** People like to take pictures of this veggie. It is lime green and has a spiral growth pattern.
- **6.** This vegetable is really a fruit. Plant scientists say it is a berry.
- 7. Some people call this Chinese cabbage.
- Some people say these greens were part of the first Thanksgiving dinner.
- This veggie is a cross between a wild cabbage and a turnip.

Which vegetable would you like to try after reading the facts above:

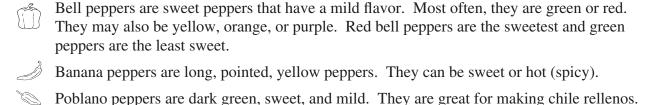
Why?

Why?

Two Kinds of Peppers

Peppers are healthy "fruit vegetables," and they add flavor to many dishes we eat. Sweet bell peppers and hot chili peppers are in the same plant family. They are also related to tomatoes, potatoes, and eggplant!

Sweet peppers are high in vitamin C and vitamin B-6. They provide fiber. People often eat sweet peppers raw in salads or as a crunchy veggie with dip.



Sweet cherry peppers look like small red bell peppers and are slightly spicy.

Chili peppers are high in vitamins A, B-6, and C. Most often, they are used to season other foods. A chili pepper triggers sensors in the tongue and skin. It tells your body the temperature is rising. The heat we taste is not just spicy. It really feels as if your mouth is on fire.

- Jalapeños are usually shiny green, but there are also red and purple varieties. They can be hot to very hot. In dried form they are called chipotle.
- Serrano chilies are green. They are smaller and hotter than jalapeños.
- Anaheim chilies are green when fresh. They are red when dried. They may be mild or hot.

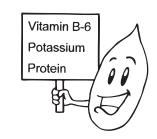
Feel the Heat! Chili peppers are rated on the Scoville Heat Unit scale. To find the heat units, scientists dilute a pepper in sugar water. They keep adding sugar until the pepper does not taste hot any more. The more sugar needed, the hotter the pepper ranks on the scale. Below are the Scoville Heat Unit ratings for different five peppers.

Directions: Rank the seven peppers on the chart according to their "heat units." The number 1 will signify the least hot and the number 7 will be for the hottest.

Scoville Ratings of	Peppers Heat Units
Anaheim Pepper	1,000–2,500
Bell Pepper (Mild)	0 (no heat)
Habañero (Very Hot)	200,000–350,00
Jalapeño (Hot)	3,500–5,000
Serrano Green Chili Pepper (M	(ild) 10,000–23,000
Banana Pepper	0–500
Poblano Pepper	1,000–2,000

Think About Whole Grains

Whole grains are healthy foods. They provide us with carbohydrates. Carbohydrates give us energy. Whole grains also have many vitamins and minerals as well as fiber, protein, and healthy fats. You may be familiar with some whole grains, and some may be new to you.



Directions: Use the whole grains listed in the Word Box to help you unscramble the whole grains on the right. Put a check mark by the ones you have tried.

Wand Day	1.	athew	
Word Box	2	eiltml	
amaranth			
barley	3.	estlp	
brown rice	4.	homrsug	
buckwheat	5.	huatbewkc	
bulgur	6.	layebr	
corn	7.	namatrah	
millet	8.	naqoiu	
oats			
quinoa	9.	rcno	
rye	10.	tosa	
sorghum	M 11.	ulrgub	
	\\X\X\X		
spelt	12.	wnobr ierc	
wheat	13.	yer	
wheat berries	14.	hetaw rrseieb	

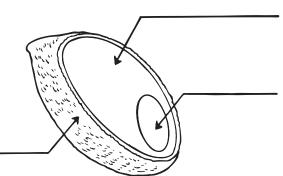
Challenge: On the lines below, write the name of a new whole grain you might try. Research this food. Write what you learn about it and share the information with classmates.

What Is a Whole Grain?

What is a whole grain? Grains grow in fields. The grain we eat is the seed of the plant. This seed is also called the **kernel**. The **whole grain** has three parts—the *bran*, the *germ*, and the *endosperm*. Each of these parts has important vitamins and other nutrients. Whole grains have all three parts of the kernel left intact.

Directions: Label the diagram below to show all three parts of a whole grain kernel. Look for key words in bold print in the text to help you.

- The **bran** is the multi-layered outer skin of the kernel.
- The **germ** is the embryo of the kernel which can grow into a new plant.
- The endosperm surrounds the germ and provides energy for the young plant.
 It is the largest part of the kernel.







"Images courtesy of Oldways and the Whole Grains Council"

Read food labels to find out if a food has whole grains. There are two easy ways to see if a product is made with whole grains or refined grains. You can tell by looking at the package.

Look for "stamps" like the ones to the left. The top stamp says 100%. It means that the product is 100% whole grain. Each serving has *at least* 16 grams of whole grain.

The bottom stamp does not have the 100% on it. This product is still good for you, but it only has some whole grain and has *at least* 8 grams of whole grain per serving.

If you don't see the stamp, read the ingredients. The word "whole" should be in the ingredients (e.g. **Ingredients**: whole wheat flour, instead of **Ingredients**: wheat flour . . .).

Some grains we eat are "refined." These grains have had the bran and the germ removed. This takes away many important nutrients. During processing, some vitamins and minerals are added back. Whole grains are still healthier for you, though. They provide more protein, carbohydrates, fiber, and other nutrients. These nutrients work together to help us stay healthy. Whole grains are used for flour and in other foods.

Extension: Go to the grocery store with an adult. Bring a pencil and notepad and record the names of products having one of the two seals above. Share the information with classmates and consider creating a display using pictures or packaging.

Types of Corn

Corn is a vegetable. It is also a whole grain. *Corn* grows in a field on tall stalks. Hundreds of years ago, people in South America grew *maize*. This crop was cultivated into the corn we know today. Corn is usually harvested when the stalks are four to six feet tall.



Acres of *dent corn* are grown each year. Some people call this field corn or maize. A dent forms in the top of the kernel as it dries. This type of corn is used to feed animals and make corn syrup, fuel, and biodegradable plastics.



Sweet corn is harvested before it is fully mature. It is sweeter in taste than dent corn. This is the corn we eat as a vegetable. When you eat corn on the cob, you are eating sweet corn. Did you know it has an even number of rows?



Some corn (maize) is soaked in a solution of salt, soda, or lime. Soaking it in lime adds calcium. Soaked kernels of corn make a dish called *hominy*. People eat hominy heated or ground into *grits* (hominy grits) and served with water or milk. Another way to eat hominy is as a soup called posole, popular in Mexico.



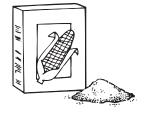
If hominy is mashed, it becomes *masa*. Masa is corn that has been soaked in lime water and then mashed up. It is considered a whole grain. People use masa to make *tortillas*.



Polenta is a coarse type of corn meal made from *flint* corn. It is boiled to make a porridge that can be eaten. It can also be baked in an oven or grilled. It is also used as a base for other foods, such as chicken or fish.



Popcorn is another type of flint corn. It has a hard hull with a pocket of starch that pops. Steam builds up inside the hull when the corn is heated, and it explodes. There are two basic shapes of popped popcorn: snowflake and mushroom. Which one do you think is bigger and fluffier?



Dried corn can be ground into *cornmeal*. Some cornmeal contains the bran and the germ, so it is a whole grain. We use cornmeal to make corn bread or muffins. It can also be cooked as a hot cereal. Sometimes cornmeal is used to coat fish or other foods before frying or baking.

Corn Review Word Search

Directions: Review the types of corn you read about on the previous page. Then, find each type of

corn	listed	in	the	Word	Box	in	the	word	search.
COLII	nsuu	111	uic	WOIG	DUA	111	uic	word	scarcii.

A	N	G	Е	R	I	A	L	Q	M	Н	D
Q	P	R	Н	D	S	Н	Y	В	W	Е	R
Н	О	D	О	A	Е	Z	A	U	F	Z	L
В	L	R	M	С	Н	G	О	N	Т	Ι	Y
U	Е	K	Ι	L	P	A	R	J	F	A	P
X	N	С	N	В	G	О	M	I	D	M	N
J	Т	В	Y	N	С	Т	P	F	Т	Е	R
L	A	Н	Е	Т	U	Е	X	I	С	S	О
Т	D	Е	N	Т	С	О	R	N	О	G	С
M	G	Ι	S	A	L	L	Ι	Т	R	О	Т
О	L	Z	В	Н	N	Н	R	D	N	Ι	Е
F	Q	Ι	Т	R	A	С	K	P	M	Н	Е
S	A	F	О	G	Y	Е	N	A	Е	N	W
R	N	С	О	R	N	В	R	Е	A	D	S
V	Е	S	A	С	W	P	D	Т	L	Y	С

Word Box

cornbread
cornmeal
dent corn
flint corn
grits
hominy
maize
masa
polenta
popcorn
sweet corn
tortilla

- 1. Which type of corn is used for corn on the cob?
- 2. Which type of corn is used to feed animals?
- **3.** Which type of corn is used to make hominy or hominy grits? _____
- **4.** What is a popular type of flint corn, often eaten at the movies?
- 5. When we grind up dried corn we make ______.
- **6.** Tortillas are made from _____

Which Foods Have Whole Grains?

Whole grains have many important vitamins and other nutrients. Whole grains provide fiber. About half of the grains we eat should be whole grains.

How can we be sure our food has whole grains? It can be tricky. Foods that are darker in color are *not always* whole grain. We can read food labels, but sometimes it is confusing. A label might have the words "multi-grain" or "stone-ground." It might say "100% wheat," "cracked wheat," or "bran." These are not usually whole grain foods. Look for labels that have at least one of the words from the whole grain list on page 31.

Whole Grain Spaghetti



Ingredients: whole durum wheat flour

Raisin Cereal

Ingredients: whole grain wheat, raisins, corn bran, sugar, whole grain rice, whole grain oats, wheat bran, glycerin, corn syrup, brown sugar, salt, honey, corn starch, cinnamon, preservatives



Flour Tortillas

Ingredients: enriched bleached wheat flour, water, vegetable shortening, oil, leavening, salt, preservatives

Whole Wheat Bread

Ingredients: whole wheat flour, water, wheat gluten, wheat bran, corn syrup, oil, molasses, salt, yeast, honey, wheat germ

Directions

- 1. Read the ingredients taken from the labels of the four whole-wheat products above. Underline the ingredients that tell you whether or not the food is whole grain.
- 2. Which food is not a whole grain product?

How do you know? _____

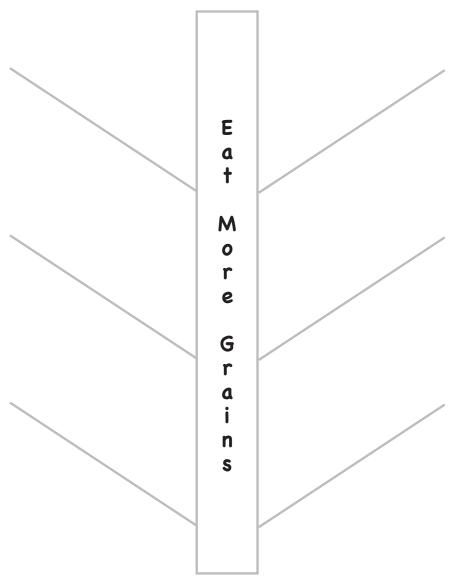
3. Which foods can be made with grains other than wheat?

Whole Grains Every Day

Most people already eat grains every day. When possible, choose foods that have *whole* grains like whole wheat bread, whole wheat tortillas, and wild or brown rice. Other foods have *refined* grains. White bread, white rice, and white flour are refined grains.

Refined grains have been milled (processed) so they no longer have the bran and the germ of the kernel. In this process, fiber, iron, and the vitamins are removed. If you do eat refined grains foods, look for the word "enriched" on the label. This means that some vitamins and iron have been added back in but not fiber. What are some choices you can make to eat whole grains instead of refined grains?

Directions: Work with a partner. Brainstorm ways you can eat more whole grains every day. Write your ideas on the graphic organizer.



Challenge: Make a poster to help others remember to eat whole grains. Include the ideas from your notes and your discussion with your partner. Make your poster interesting so others will want to read it.

Name

Think About Dairy Foods

Milk and cheese are healthy foods. They are part of the dairy food group. These foods give us calcium, vitamins and minerals, and protein. Dairy foods help us build strong bones and teeth. We can choose low-fat milk and cheese to keep our hearts and blood vessels healthy.





Directions: Check the dairy foods you have tried. Put an **X** in front of the ones you have not tasted. Circle one or two dairy foods you would like to try.

	Dairy								
	buttermilk cheddar cheese condensed milk cottage cheese dried or powdered milk evaporated milk frozen yogurt	Greek yogurt milk mozzarella cheese parmesan cheese pudding ricotta cheese Swiss cheese							
1.	Write about an experience you have had eating a	dairy food							
2.	2. Explain why you would like to try the foods that you circled								
3.	3. Write a question you have about one of these dairy foods.								
4.	Find the answer to the question you wrote in #3.								

Teacher Note: Butter has no calcium and is not considered a dairy food, even though it is made from milk. Soymilk, which is a plant-based product, is considered a dairy product when it is fortified with calcium.

How Do We Get Our Milk?

You may have read about the days when farmers milked cows by hand. The milk would go into a clean pail, and he or she would take the pail of milk to the house. The milk would be poured into glasses right from the pail and served for dinner! In most places, it's a little different now. You probably pour your milk from a container that you get out of the refrigerator. Someone in your household bought that milk at a store. And the cow is probably not in the field next door! So how does our milk get from the cows to us?

Directions for pages 38 and 39

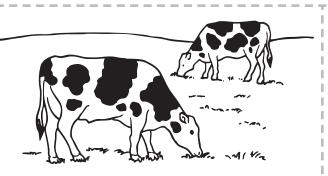
- **1.** Read and cut out the statements below. They describe the process of getting milk, but they are not in order.
- **2.** Cut out the pictures (page 39) and use them to put the statements below in the correct order. Number the statements in the correct order.
- 3. Combine the statements and the pictures to create a book or poster showing the process of bringing milk from the cow to the store. You will have more than one statement for two of the pictures.

 Ţ
 Milk is put into jugs or containers.
Milk is homogenized to prevent any remaining fat particles from rising to the top of the milk and forming a cream layer. This step gives milk a more consistent texture and appearance.
 Trucks transport milk from farm to factory and workers test the milk again.
 People buy milk at the store.
 Milk is tested by farmers.
 Milk is put into refrigerated tanks immediately to prevent the growth of harmful bacteria.
 Cows graze on farms. They are fed grains. Their bodies process this food to produce milk.
 Cows are milked with milking machines.
 Trucks transport the milk containers to stores for purchase.
 Milk is pasteurized (heated) to kill harmful bacteria.

How Do We

Get Our Milk?

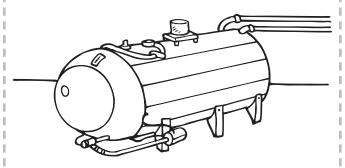
How Do We Get Our Milk? (cont.)



1. Cows graze.



2. Cows are milked.



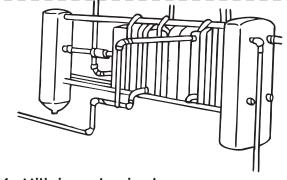
3. Milk is refrigerated and tested.



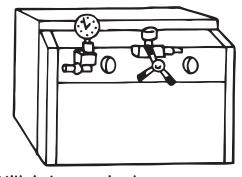
4. Milk is transported to be processed.



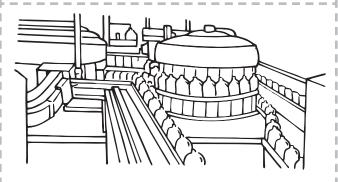
5. The milk is tested again.



6. Milk is pasteurized.



7. Milk is homogenized.



8. Milk is put in containers to be purchased.

What's the Difference?

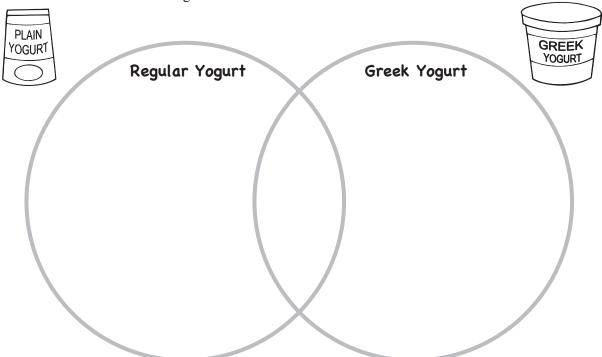
Yogurt is a healthy dairy food. You may have seen different kinds of yogurt at the store. There are two main kinds, Greek yogurt and "regular" yogurt. What's the difference between the two?

Greek yogurt is strained yogurt. The straining removes excess whey, lactose, and sugar. The resulting yogurt is thicker. If you compared the same amount of Greek yogurt and regular yogurt, you would find that the Greek yogurt has more protein. It has fewer carbohydrates and is lower in sugar, too. Some people think Greek yogurt is creamier but not as sweet as regular yogurt.

Most yogurt has live bacterial cultures. This helps keep our digestive systems healthy. Both types of yogurt provide calcium and can be low-calorie foods.

No matter which kind of yogurt you choose, look for brands of yogurt with less added sugar. Read labels to see if the yogurt is low fat. Check to see that other ingredients like cornstarch have not been added.

1. Think about the ways regular and Greek yogurt are the same. How are they different? Write your observations in the Venn diagram below.



2. Which yogurt do you prefer? Greek Yogurt Regular Yogurt

Why?_

Either kind of yogurt can be a healthy food choice. Try these tips to add more yogurt to your diet:

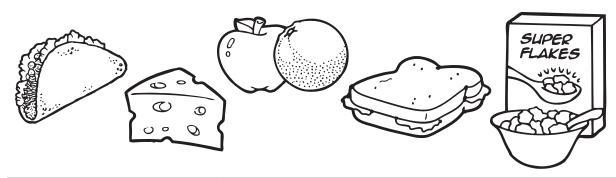
- Use yogurt as a dip for raw vegetables. Add seasonings such as garlic, dill, or parsley to spice it up a bit.
- Substitute yogurt for sour cream on tacos and dips.
- Mix fruit with low-fat yogurt for a tasty breakfast.
- Use Greek yogurt as a spread instead of cream cheese, mayonnaise, or butter which all have a higher fat content.



Eating Dairy Foods

Directions: Brainstorm some ways to eat dairy foods. Use the Word Box at the bottom of the page to help you complete the sentences. You may use some words more than once.

1.	I can have	in a bowl of	·
2.	I can make a	for vegetables out of	·
3.	I can put a slice of	on a	for lunch.
4.	I can make a	out of fruit and	·
5.	I can stir some or lunch.	into	for a tasty breakfast
6.	I can drink a	of	_ at dinner.
7.	I can add	_ to my	
8.	I can havesandwich at lunch.	with whole grain	instead of a
9.	Two of my favorite ways to eat da	iry foods are	and
	·		



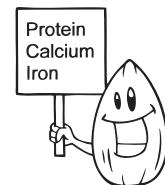
Word Box						
cereal	fruit	smoothie				
cheese	glass	taco				
crackers	milk	tortilla				
dip	sandwich	yogurt				

I like these foods because

Think About Protein Foods

We get protein from meat, poultry, and seafood. Beans, peas, and eggs are protein foods, and so are nuts and seeds. It is important to get enough protein each day. Protein helps:

- build, maintain, and replace tissues in our bodies. These tissues are found in bones, muscles, and organs. Building and maintaining these tissues helps us move and breathe.
- our bodies make red blood cells, which carry oxygen to all parts of our bodies.
- our immune system protect us against disease and infection. It helps us stay healthy and well.
- give us energy.



Directions: Here is a list of protein foods. Many of these you may already eat, but some may be new to you. Put a check by the foods you have eaten. Put an **X** in boxes next to foods you have not tried yet. Circle your three favorite protein foods.

Protein									
almonds	ground chicken	pinto beans							
beef	ground lamb	pork							
bison	ground pork	pumpkin seeds							
black beans	ground turkey	rabbit							
black-eyed peas	ham	sesame seeds							
cashews	hazelnuts	shellfish							
chicken	kidney beans	soybeans							
chickpeas	lamb	split peas							
(garbanzo beans)	lima beans	sunflower seeds							
duck	navy beans	tuna							
eggs	nuts	turkey							
fish	peanuts	veal							
goose	pecans	venison							
ground beef	pistachios	walnuts							

Challenge: Do some research and learn about two protein foods that are new to you. Explain why would you like to try each of these foods. Use the back of the page to answer.

Beef Is a Source of Protein

Lean beef gives us protein. Protein is an important nutrient. Beef protein combines nutrients in a way our bodies can use. These nutrients keep our red blood cells and nerves healthy. Protein helps us build new cells and make enzymes we need to digest our food. Basically, protein keeps our bodies running.

Red meat like beef has iron in a form that our bodies can absorb easily. Iron helps the blood carry oxygen to the body's cells. Beef has vitamins and minerals, too. It is best to eat lean red meat that has not been processed too much. This helps us get the important nutrients without getting added chemicals or fillers our bodies do not need.

Wor	d Box					the cl	ues on zle.	page	44 to	
angus	heifer		(ma							<i>78</i>
beef	lean		1	·	2					
bovine	longhorn			Ì		3			4	
bull	range			ŀ						
calf	roast		5							
cattle	ruminant									
cow	steak					rach of a	6			
hamburger	steer						"/ " \ \ \ \ \ \	كقس		
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6		7				8				
9										
			10	0				11		
	12		-	-		13				
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AR A										

Beef Is a Source of Protein (cont.)

Directions: Use the Word Box on page 43 and a dictionary to fill in the blanks and learn more about beef. Then fill in the crossword puzzle on page 43 using the answers from this page.

Acr	oss
1.	A is a young male or female cow less than one year of age.
3.	A is a mature male bovine that can reproduce.
5.	A is an animal that eats plants and converts them into meat or milk that humans can eat.
7.	A is made from ground beef.
9.	The term refers to cattle.
13.	A is a thick slice of beef cut across the muscle grain.
14.	Cows, bulls, and steers have hooves and are raised for food or for their hides. They are also known
	as
15.	Cattle graze on an area of open grassy land called a
Dow	vn
2.	is a breed of cattle known for tender beef.
4.	The earliest breed of cattle raised for beef in the United States is the Texas
	·
6.	A mature female that has produced a calf is called a
7.	A female cow over one year old that has not had a calf is called a
8.	beef is cooked in a hot oven.
10.	Meat that is has little or no fat.
11.	The meat that comes from the muscle of an adult cow is called
12.	A is an adult male cow raised as beef for people to eat.

Fish—Protein and Good Fat

Fish is another good source of protein. It provides about the same amount of protein per serving as other types of meat. Fish is low in calories and fat. It also has omega-3 fatty acids, a healthy type of fat. This makes fish a healthy way to get protein.

There are two kinds of fat: healthy fat and unhealthy fat. Most fish is low in unhealthy fat. Some kinds of fish, such as salmon or tuna, are high in omega-3 fatty acids. That might sound bad, but that type of fat in fish helps keep our heart and blood vessels healthy.

Some animals that live in the water are called *shellfish*. They have a shell, or exoskeleton. Many shellfish are also good to eat in limited amounts. They provide protein and healthy fat in our diets.

1. Read the list of types of fish and shellfish people eat. Circle the shellfish in the list.

Word Box				
catfish	crayfish	salmon	snapper	
clam	halibut	scallop	swordfish	
cod	herring	sea bass	trout	
crab	lobster	shrimp	tuna	

2. Find each fish and shellfish in the word search.

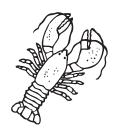


S	С	A	L	L	О	P	S	D	L
В	W	L	Е	С	F	Н	N	Y	О
Н	С	0	R	Т	R	M	A	G	В
S	О	A	R	I	F	T	P	N	S
I	В	О	M	D	О	С	P	I	T
F	U	P	G	R	F	T	Е	R	Е
Т	U	N	A	K	U	I	R	R	R
A	S	Е	A	В	A	S	S	Е	G
С	Е	G	I	R	G	M	В	Н	P
S	A	L	M	О	N	Y	R	N	A
N	A	R	L	S	M	A	L	С	S
Н	S	I	F	Y	A	R	С	W	В





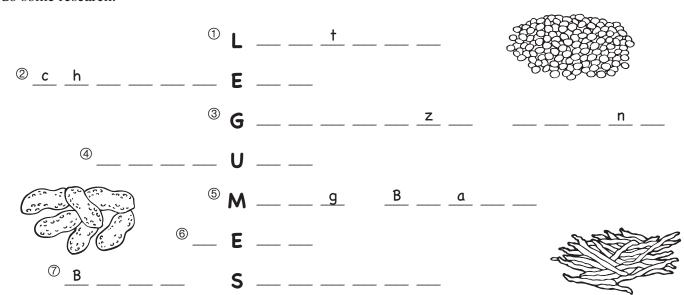




Legumes for Protein and More!

Beans and peas are unique foods. They are legumes, which are plants with seeds that grow in pods. Peas, beans, lentils, and peanuts are all legumes. These foods are in the vegetable group, but they are also in the protein group. They provide protein and nutrients similar to those found in meat. They are also good sources of fiber and potassium. These nutrients are found in many vegetables.

Directions: Use the clues in the box below to find the names of common legumes. You may need to do some research.



Legume Clues

- 1. _____ are used in soups.
- **2.** _____ are used to make hummus and in salads.
- **3.** Another name for the answer in #2 is ______.
- **4.** _____ are also called "groundnuts" because they grow underground.
- **5.** _____ are small green, yellow, or black legumes often used to make bean sprouts or soups.
- **6.** _____ are green, round, and come in pods. They can be cooked or eaten fresh from the garden.
- **7.** _____ are great on salads or sandwiches.

Nuts About Protein

Nuts are protein foods that grow on trees. There are many different kinds of nuts. Nuts are low in fat and help keep our hearts healthy. They help our blood vessels stay healthy and may prevent blood clots. Nuts have healthy types of fat, fiber, and vitamin E.

Nuts make a good snack food. They are easy to take with you and eat when you are away from home. Check the serving size for the type of nuts you like to eat. One serving of nuts can be anywhere from 5 to 50 nuts, depending on the variety. Sometimes even the snack-size bags have more than one serving.

Directions: Match each nut to its name.

almond

brazil nuts

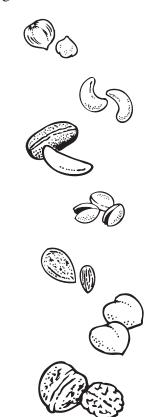
cashew

hazelnut

macadamia nuts

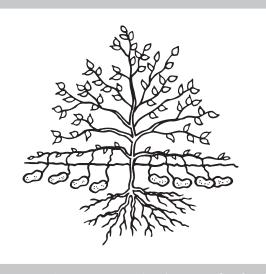
pistachios

walnuts



Are Peanuts Nuts?

Some people call peanuts "groundnuts." This is because they grow underground. Peanuts are actually *legumes*. They are an edible seed that grows in a pod. A peanut plant or bush develops flowers near the base of the plant. The flowers lose their petals. Then, the budding "peg" grows down away from the plant to the soil. The way they grow is similar to legumes. Peanuts give us protein and fiber and are good sources of vitamins B and E, and magnesium. We use peanuts in cooking and eating, more like a nut.



Making Healthy Food Choices

Many people in our country do not eat enough fruits or vegetables.

Directions: Here is a list of way and then answer the questions below	es to eat more fruits and vegetables.	Check the ways you have tried
Picture your meal on a pla	te. Do you have fruits and vegetab	les on half the plate? You should!
Keep fruits and vegetables	handy for snacking.	
Ask if your family can try	a new fruit or vegetable you have l	earned about.
Add fruit to your cereal.		
Enjoy hot vegetable soup	on a cold day.	05.050.
Add vegetables to a tortilla	a wrap.	
Dip vegetables in a health	y dip, such as hummus or yogurt.	
	vegetables on sandwiches. Try ave ettuce, or tomato? What else migh	<u> </u>
Add different vegetables to	o your salad of leafy greens.	
	different ways. If you don't care f	For a vegetable cooked, try eating it ked.
	add vegetables to your day. Share	
	uld like to try to have fruits or vege	
•	Protein. Combine your ideas to fi	_
Grains	Dairy	Protein

Vitamins and Minerals Chart

Vitamins and minerals help keep us healthy. We get these nutrients from the foods we eat. Different foods have different nutrients, so we eat foods from each food group each day. This helps us get all the vitamins and minerals we need.

Directions: Read the chart to learn how different vitamins and minerals help us stay healthy. Then, answer the questions on pages 50 and 51.

Nutrient	Health Benefits	Foods
Vitamin A	healthy hair, skin, and eyes; helps make white blood cells to fight germs	apricots, broccoli, carrots, cheese, milk, spinach, sweet potatoes
Vitamin B	healthy blood; helps our bodies use energy from food	chicken, eggs, fish, lean meat, milk, whole grains
Vitamin C	healthy teeth, gums, muscles; protects us from infection and helps us heal	broccoli, Brussels sprouts, cabbage, grapefruit, kiwi fruit, oranges, peppers, strawberries, tomatoes
Vitamin D	strong bones and teeth; helps our bodies use calcium	eggs, fish, milk
Vitamin E	healthy blood, eyes, liver, lungs, and skin	avocado, eggs, leafy green vegetables, nuts, peanut butter, seeds, whole grains
Vitamin K	helps blood clot, which allows wounds to stop bleeding	dark green leafy vegetables, cabbage, cauliflower, eggs, meat, milk, peas, yogurt
Folic Acid	aids red blood cell health	dark green leafy vegetables, dried beans and peas
Calcium	strong bones and teeth; muscles; keeps cells healthy; helps blood clot, which allows wounds to stop bleeding	citrus fruits, dark green leafy vegetables, dried beans and peas, milk
Phosphorus	helps our bodies use energy from food; keeps cells healthy	chicken, dried beans and peas, eggs, fish, meat, milk
Magnesium	strong bones; helps our bodies use energy from food; keeps our nerves healthy (allows nerves to send messages back and forth between the brain and the body to keep us safe)	nuts, raw leafy green vegetables, seeds, whole grains
Potassium	healthy muscles, cells, and nerves; helps body use energy from food	bananas, dried beans and peas, meat, orange juice, peanut butter, potatoes
Iron	healthy blood cells and muscles; helps blood carry oxygen to cells	dried beans and peas, dried fruits, eggs, leafy green vegetables, red meat, potatoes

Vitamins

Directions: Fill in the missing words as you read. You may use some words more than once. Do some research and check the chart on page 49 for more vitamin information.

1.	Our eyes need Vitamin A to stay healthy. Good sources of this vitamin include
	and
2.	Our teeth and gums need Vitamin C and Vitamin A to stay healthy. One food with both of these vitamins is
3.	When we get a cut, Vitamin C helps it stop bleeding. Some foods with Vitamin C are
	and
4.	Vitamin E helps our bodies fight germs and disease. We can find Vitamin E in foods such as
	and
5.	Even our skin benefits from vitamins! Vitamins and
	help our skin stay healthy.
6.	Vitamins A and E, as well as iron, help our body make red blood cells. Red blood cells carry
	oxygen through our bodies. Two foods that have iron are and
	·
7.	Five vitamins in the B-vitamin group help our heart stay healthy. Good sources of these vitamins
	are and
8.	Vitamins C and K help us build strong bones. Vitamin C is found in foods such as
	and
	We get Vitamin K from and
9.	Vitamin E helps keep our muscles strong and healthy. Some foods with Vitamin E are
	,, and,
10.	We get Vitamin B and iron from foods such as and

Vitamins and Minerals

Directions: Refer to the Vitamins and Minerals Chart on page 49 to help answer the questions.

1.	Which fruits are good sources of calcium?
2.	Name a vitamin we get from yogurt.
3.	Which nutrients help our blood clot so we stop bleeding when we get a cut or larger wound
4.	How do B-vitamins help us?
5.	It is important to eat orange fruits and vegetables such as apricots, carrots, and sweet potatoes. These foods are good sources of vitamin which helps us
ó.	Explain how vitamin C helps us.
7.	What is an important nutrient we get from bananas?
	What does it do for us?
8.	Why is it good to eat leafy green vegetables?
9.	We eat Vitamin D from eggs, fish, and milk. Vitamin D helps us
0.	Why are dried beans and peas healthy foods to eat?

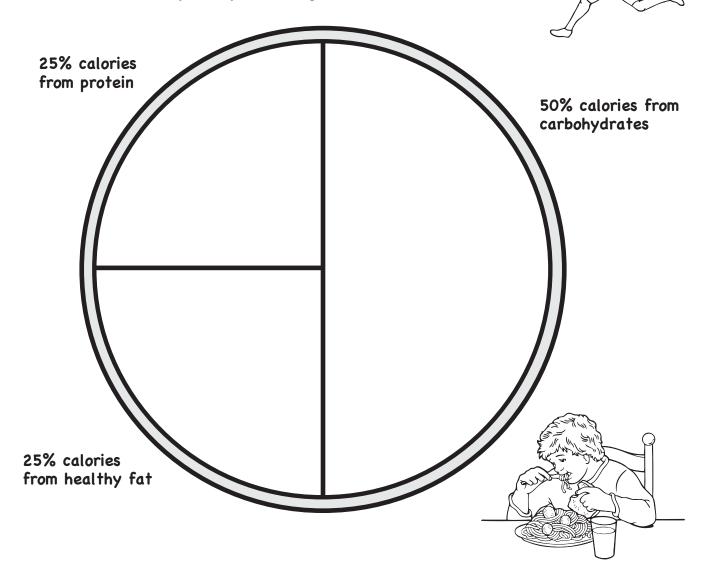
Calories Equal Energy

Foods in the five food groups have nutrients that keep us healthy in many ways. Foods also have carbohydrates, fats, and protein. These things provide energy. The right amount of healthy food each day provides us with the right amount of energy.

A *calorie* is a measure of energy. Different foods have different amounts of calories. The number of calories each person needs varies. Some people need about twelve hundred calories per day. Others need over two thousand calories per day. Athletes can consume even more. It depends on a person's age, gender, and how active he or she is. Your calories (energy from food) should be *balanced* between these three areas:

Protein found in foods such as meat, fish, chicken, eggs, and milk **Carbohydrates** found in foods such as whole grains, milk, fruits, vegetables **Healthy Fats** found in foods such as avocados, olives, nuts, seeds, fish

Directions: List healthy foods you eat that go in each section.



What Is Junk Food?

It is important to check the ingredients in the foods you choose to eat. There are healthy foods, and there are foods we sometimes call "junk foods." We call them junk foods because they have higher levels of calories from sugar or fat but do not provide much protein, vitamins, or minerals. They are not as good for us. It is suggested that we eat junk foods for special treats and to watch portion sizes.

For example, let's look at french fries. Most of us enjoy eating french fries. But it is important to know what you are eating and how much! Look at the three different options for french fries below. First, look at the difference in serving sizes between the small and supersized french fries. It is quite a bit, isn't it? Then, look at the fat calories and the amounts of sodium. Which size order of fries might be healthier for you? Finally, look at the baked sweet potato fries. Compare them to the regular fries. What did you find?

Small French Fries



Supersized French Fries

Nutrition Fac Serving Size 1 serving (176g) Servings Per Container 1	ts	
Amount Per Serving		î
Calories 540 Calories from F		ı
%Daily	Value*	ľ
Total Fat 26g	40 %	
Saturated Fat 4.5g	23 %	8
Trans Fat 0g		3
Cholesterol 0mg	0 %	OW=5% or less
Sodium 350mg	15 %	
Total Carbohydrate 68g	23 %	를
Dietary Fiber 6g	24 %	HIGH+20%
Sugars 0g		
Protein 8g		or more
		"
Vitamin A 0% • Vitamin C	35%	١,
Calcium 2% • Iron 8%		I
 Percent Daily Values are based on a 2,0 calorie diet. 	000	t

Baked Sweet Potato Fries

Calories from Fat 2
Calorina from Eat 2
Calones from Fat 2
% Daily Value
49
29
09
139
18.8g 6 %
129
Vitamin C 309
Iron 4º

caloriecount.about.com

Name a "junk food" you like. How could it be made a healthy food or what might be substituted for it?

· ******************************

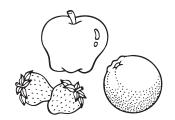
Journal Page: Practice healthy eating for a week. Then pick a day and try to eat only healthy foods. Log them into your journal on the "My Healthy Foods Day" page.

e are also a

What Is Fiber?

Fiber comes from plants. It is the part of the plant that our bodies cannot break down to use for energy. There are two types of fiber:

Type 1—The first type of fiber dissolves in water. This type of fiber helps keep our blood sugar at the right level. (It also lowers cholesterol.) We can find this type of fiber in many foods. Whole grains such as barley and oatmeal have this kind of fiber. We find it in fruits such as apples, blueberries, oranges, pears, plums, and strawberries. Protein foods such as lentils, nuts, flaxseeds, and beans have this type of fiber. Some vegetables have it, too, such as cucumbers, celery, and carrots.



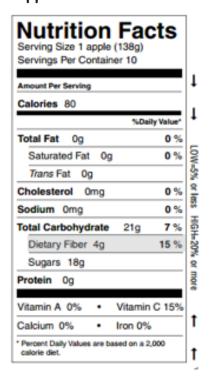
Type 2—The second type of fiber does not dissolve in water. This type helps us digest our food. High-fiber foods often have many nutrients and are low-calorie foods. Whole grain foods are good sources of this type of fiber. Vegetables such as celery, broccoli, cabbage, and carrots have this type of fiber. We also find it in dark leafy vegetables, raisins, and grapes.



Directions: Read the three nutrition labels below and answer the questions.

- 1. Which food has the most grams of fiber?
- 2. Which food has the most vitamin C?
- 3. What is one other nutrition fact you learned from reading the labels?

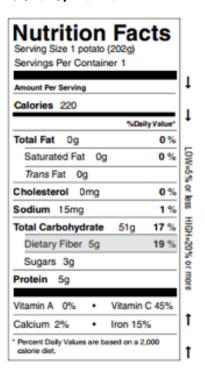
Apple



Bread, Whole Wheat

om Fat 30
Daily Value*
5 %
3 %
0 %
14 %
8%
14 %
in C 0%
֡

Potato, Baked

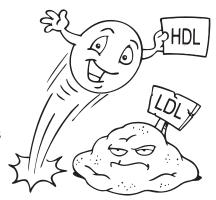


What Is Cholesterol?

Cholesterol is a type of fat. The right amount helps our organs work the way they should. Our livers make cholesterol for our bodies. We can get cholesterol from some foods, too, including meat, fish, eggs, butter, cheese, and milk. There are two types of cholesterol, **LDL** and **HDL**:

LDL carries cholesterol away from the liver into the body. We say LDL is the "bad cholesterol" because it can stick to blood vessels. This can cause heart disease or a stroke in the brain. Some fats in foods raise cholesterol levels in your blood. These types of fats are saturated and trans fats.

HDL is the other type of cholesterol. HDL carries cholesterol back to the liver. The liver breaks down the "bad" cholesterol. Exercise helps your body use good cholesterol. Some cholesterol can help us digest our food. Keeping a healthy weight can also help improve levels of "good" HDL in your blood.



- Low cholesterol foods are often low in fat. These are healthy foods such as fruits, vegetables, and whole grains. These foods are good for most people.
- What does it mean when someone has "high cholesterol?" It means their bodies make too much cholesterol. When too much cholesterol sticks to the inside of the blood vessels it can cause heart disease. This makes it hard for blood to flow to parts of the body. The heart has to work harder. People with high cholesterol need to be careful about how much fat they eat. Exercise and eating lower cholesterol foods like fruits, vegetables, and whole grains can help.
- 1. Write facts you have learned about good and bad cholesterol on the chart below.

HDL "Good" Cholesterol	
LDL "Bad" Cholesterol	

2. What is one way you can help your heart stay healthy?

Challenge: Find three foods that are low in cholesterol.

Sodium

Many foods have sodium in them. Sodium is the chemical name for salt. Our bodies need salt in small amounts. Small amounts of salt keep body fluids in balance. Salt helps our nerves, our muscles, and our heart work the way they should. However, too much salt can be unhealthy. People who eat too much salt can have a greater risk for heart disease.

How much salt do you need? It's easy to get more sodium than we need in one day.

- Eight-year-olds should have 1,000 mg of sodium each day.
- Nine- and ten-year-olds should have no more than 1,500 mg of sodium each day.

Read the nutrition label to find out how much sodium (salt) is in the food products you eat.

Try to choose foods that are lower in sodium. You can also lower your salt intake by not putting salt on food at the table.

The sample label on the right shows you where to find the sodium listed in a food. Sodium is highlighted for you with a gray bar.

Bagel

Servings Per Container 5 Amount Per Serving	
Calories 200 Calories fro	m Fat 10
%D	aily Value*
Total Fat 1g	2 %
Saturated Fat 0g	0 %
Trans Fat 0g	
Cholesterol 0mg	0 %
Sodium 380mg	16 %
Total Carbohydrate 38g	13 %
Dietary Fiber 2g	7 %
Sugars 2g	
Protein 7g	
Vitamin A 0% • Vitami	in C 0%
Calcium 6% • Iron 1	5%

Directions: Collect nutrition labels from three foods. Look at the labels and find how much sodium is in each food. How much sodium is in each of the three foods you researched?

Food 1—	Amount of Sodium
Food 2—	Amount of Sodium
Food 3—	Amount of Sodium

Add your three sodium (salt) totals. How much sodium did you get altogether from the three foods?

Food 1— _____

Food 2— _____

+ Food 3-

Total _____ mg

Did you go over 1,500mg?

Yes

No

What could you do to lower the amount of salt in your diet?





Sugar

Do you know how much sugar is in the foods you eat? You can often find out by checking the nutrition label. Sometimes sugar is a natural part of a food, like the sugar in an apple. Other food items, like cookies or sweetened drinks, have sugar added. The label on the right shows you where to find the amount of sugar in a food. This label is for a medium-sized apple. The bottom label is for a cola drink.

The amounts of nutrients listed on labels are for *one serving* of that food. Sometimes people eat more than one serving of a food at a time. For example, the label might list one serving of cereal as one-half cup. If you have one cup of cereal for breakfast, you are having two servings of that food. That means you will have double the calories and other nutrients.

Directions: Check the labels to find the amounts of sugar in three things you eat in one day. If possible, bring labels from the empty food containers or the wrappers to class. Compare them with labels your classmates bring.

List the three food items you brought or checked. Read the nutrition label to see how much sugar was in each item. List the amount of sugar for each food.

Apple

		_
Nutritio Serving Size 1 mediu	n Fa	acts 82g (182 g)
Amount Per Serving]	
Calories 95	Calories	from Fat 3
	% Dai	ly Value*
Total Fat 0g		0%
Saturated Fat 0g		0%
Trans Fat		
Cholesterol 0mg		0%
Sodium 2mg		0%
Total Carbohydrate	25g	8%
Dietary Fiber 4g		17%
Sugars 19g		
Protein 0g		
Vitamin A 00/	• \ /ita main	0 440/
	• Vitamin	
	• Iron	1%
*Percent Daily Values are be Your daily values may be his your calorie needs:		
Calories	2,000	2,500
Total Fat Less than Sat Fat Less than Cholesterol Less than Sodium Less than Total Carbohydrate Fiber	65g 20g 300mg 2,400mg 300g 25g	80g 25g 300mg 2,400mg 375g 30g
Calories per gram: Fat 9 • Carbohyo	drate 4 •	Protein 4

Food 1—	 Amount	of	Sugar	
			•	

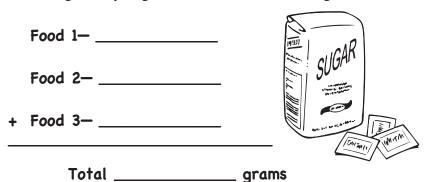
Food 2— _____ Amount of Sugar _____

Food 3— _____ Amount of Sugar ____

One teaspoon of sugar = 4 grams

It is important to try not to have more than 24 grams of added sugar per day. Add your three sugar totals.

How much sugar did you get from the three foods altogether?



Nutrition Facts Serving Size 8 fl oz (240g) Servings Per Container 1.5 Amount Per Serving Calories 100 %Daily Value Total Fat 0g 0 % Saturated Fat 0g 0 % Trans Fat 0g Cholesterol 0mg Sodium 35mg 0 % **Total Carbohydrate** 9 % Dietary Fiber 0g Sugars 27g Protein 0g Vitamin A 0% • Vitamin C 0% Calcium 0% * Percent Daily Values are based on a 2,000

Cola

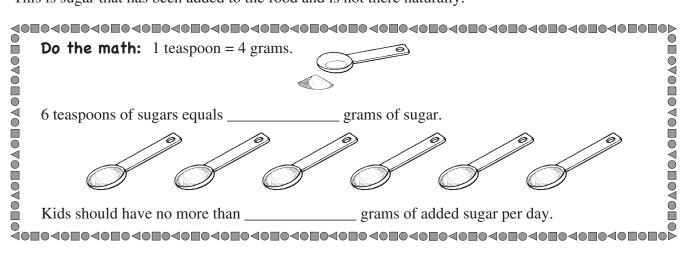
Teacher Note: The USDA provides a series of Nutrition Fact Cards like the ones featured in this book. They are downloadable and wonderful resources for comparing nutrition labels. See page 5 for the website address.

Added Sugar

It is better if we eat healthy foods every day and save treats for special times. We know that foods like cookies, candy, ice cream, and some drinks have *added* sugar. It is easy to check the nutrition labels to see how much sugar is in the packaged foods you eat.

Bananas and oranges have quite a bit of natural sugar. Tomatoes and snow peas have a little natural sugar. These are still healthy foods because they have many other nutrients. Milk also has sugar in it, but it is not added sugar.

Some health organizations say children should have no more than six teaspoons of *added* sugar per day. This is sugar that has been added to the food and is not there naturally.



Directions: Read the chart below that shows how much hidden sugar is in everyday foods. Do the math to fill in the missing spaces on the chart. Round your answers as needed to find an estimate.

Food	Grams of Sugar per Serving	Teaspoons
barbecue sauce	13 g	
graham crackers	7 g	
granola bars		2 teaspoons (average)
peanut butter	3 g	
raisin bran cereal		4 teaspoons (average)
saltine crackers		0 teaspoons
spaghetti sauce	8 g (average)	
yogurt		6 teaspoons

1.	Which food surprised vo	a most with its amount of sugar?	
	, , , , , , , , , , , , , , , , , ,		

2. Which two foods have the same amount of sugar per serving?

Why Water?

Did you know that human beings can live up to 40 days without food but only seven days without water? It is true! Water is so important that most of our body is made up of it. Almost three quarters of our total body weight is water. This includes water in our tissues, our blood, and our bones. Our bodies use water every day, and that water needs to be replaced. We get most of the water we need from the foods we eat. Most foods are almost half water, but we also need to drink liquids. Drinking water makes the most sense, and most people should drink more water than they do.

Our bodies need water to live. We need to supply our bodies with water every day. Water . . .

- transports the nutrients from the foods we eat to different parts of our bodies.
- helps us digest our food.
- carries wastes out of the body.
- helps keep our bodies cool.
- helps chemicals in our bodies react properly with one another.
- keeps our eyes moist and helps our joints move—it lubricates.
- may help reduce a fever.
- can reduce swelling or pain from bruises.
- helps people relax and eases pain in sore muscles.
- can help clean and heal burns.
- helps us feel full, which helps us eat the right amounts of food instead of eating too much.
- 1. Young people should have about eight cups of liquid each day. (1 cup = 8 oz.) Look at the 8 oz. glasses below. If about one quarter of our water comes from the foods we eat, how much more water do we need to drink? Shade the glasses to show the amount.













2. You need extra water when you exercise and play sports. You need at least one half cup for every 20 minutes you play. How much extra water should you drink if you are going to play soccer for an hour? Shade the glasses to show the amount.













3. What are two ways drinking water helps you?

a.

b. ____

Challenge: Work with a partner to create a poster describing the health benefits of drinking water.

Journal Page: Complete the "Let's Talk About Water" journal page on page 87.

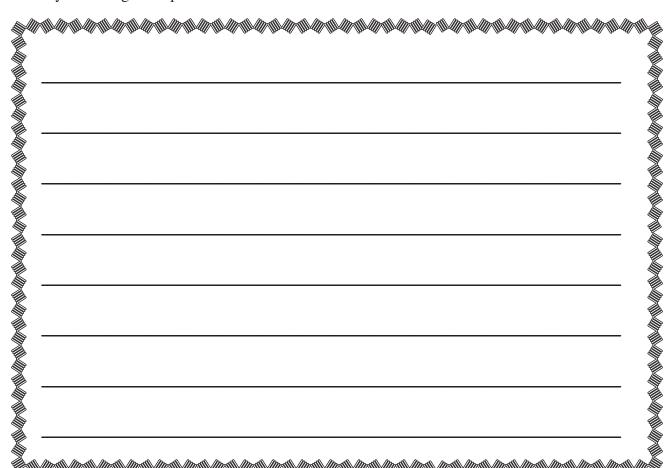
Food Tips for Tip-Top Health

Are you in tip-top health? Which of the following tips do you think you follow best? Which ones do you feel you have to improve? What steps can you take to eat healthier?

Food Tips

- 1. Read nutrition labels. Check serving sizes and the amount of healthy nutrients in each serving.
- **2.** Enjoy your food without overeating. Portion your food on a plate according to the USDA recommended guidelines.
- **3.** Throughout the day, eat foods from each group. Choose food products that are lower in sugar, fat, and sodium content.
- **4.** Focus on fruits and vegetables by filling about half your plate with them.
- **5.** Drink water instead of sugary soft drinks and juices.
- **6.** Balance good eating habits with daily physical activity and enough sleep.

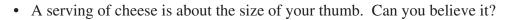
Directions: Choose one tip and write a short paragraph explaining how you can improve your eating habits by following that tip.

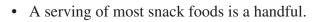


How Much Is a Serving?

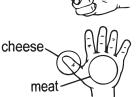
A serving is the suggested amount of food to eat at a meal or for a snack. Eating the right amount helps us stay at a healthy weight. We should eat a variety of foods but not too much of any one kind. The variety helps us get all the nutrients we need. A guide for how much of a food is enough is right in our hands! Keep these hints in mind when you are trying to figure out the right amount to eat at a meal:

• Make your hand into a fist. One serving, or portion, of rice, pasta, fruit, vegetables, or yogurt is roughly the size of your fist.





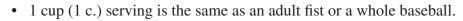
A serving of meat or fish will fit in your palm.

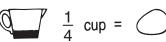


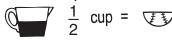
Another way to do this is to think about common objects when choosing amounts to eat in a serving:

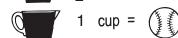
•
$$\frac{1}{4}$$
 cup (1/4 c.) serving is the size of a large egg.

•
$$\frac{1}{2}$$
 cup (1/2 c.) serving is the size of half a baseball.









Directions: Look at the serving suggestions. Think about the foods you might eat to meet those suggestions. Then, fill in the menu on page 62.

Fruit

3 servings each day

How much is a serving?

1 med. fruit

 $\frac{1}{2}$ cup chopped, cooked, or canned fruit

 $\frac{3}{4}$ c. juice

Vegetables

4 servings each day

How much is a serving?

1 c. leafy greens

 $\frac{1}{2}$ c. cooked or raw

vegetables

 $\frac{3}{4}$ c. juice

Dairy

3 servings each day

How much is a serving? 1 cup milk or yogurt $1\frac{1}{2}$ oz. cheese

Grains

5 servings each day; half should be whole grains

How much is a serving?

1 slice bread

 $\frac{1}{2}$ c. cooked rice, pasta, or cereal

1 c. ready-to-eat cereal

5 whole-wheat crackers

3 cups popped popcorn

B-B-B-B-E

Meat/Protein

5 servings each day

How much is a serving?

 $\frac{1}{2}$ c. cooked dry beans

3 oz. cooked meat or palm size

1 large egg

2 tablespoons peanut butter = 1 oz.

 $\frac{1}{4}$ c. nuts = 1 oz.

Plan a Menu

Directions: Create a menu plan for one day. Try to balance the right number of servings of each food group. Use the serving suggestions on page 61 for a reference. Later, evaluate your choices and think about changes you could make.

Breakfast	
Snack:	
Lunch	
	_
Snack:	
Dinner	_
Diffici	

Journal Page: Pick a day and try to eat only healthy foods. Log these foods into your journal on the "My Healthy Foods Day" page.

So Many Healthy Foods!

Directions: Read the clues on each card to find the correct answer. Do research if needed.

1. This whole grain is used to make bread.			
This whole grain is used to make tortillas.			
The grain is also called a vegetable.			
We get fiber, protein, and iron from this food.			
2. This dairy food is similar to a food made in Europe.			
Sometimes it has holes in it.			
It makes a good snack food.			
This food is a good source of protein and calcium.			
3. Many people like to snack on this protein food.			
We eat the kernels from the flower.			
The seeds are also pressed to make oil.			
This food also gives us fiber.			
4. This fruit has fuzzy brown skin. It is green on the inside.			
Some people think it tastes like a cross between a strawberry and a banana.			
You can scoop it out of its skin with a spoon or peel it and slice it to eat.			
This fruit is a great source of vitamin C.			
5. This is a stone fruit.			
We eat it like a vegetable or make a dip with it.			
Some people call it an "alligator pear" because of its appearance.			
This food is a good source of fiber and vitamin C.			
6. This green vegetable is good with a dip.			
Some people eat it with peanut butter.			
The part of the plant we eat is the stem.			
This low-calorie snack gives us fiber and vitamin A.			

Food Safety

Eating healthy food helps us grow and stay well. Sometimes, though, people do get sick from the food they eat. It is important to keep our food safe. If we handle food safely, we'll get the healthy benefits from the foods we eat. If not, we might get sick. Read the food safety rules below:

- Wash your hands in warm, soapy water to remove germs before you touch food.
- Cover your mouth and nose when you sneeze. Turn your head away from the food, too. Then wash your hands.
- Wash fruits and vegetables before cutting or preparing them.
- Wash the cutting board with a disinfectant after each use to prevent germs from spreading to other foods.
- Keep hot foods hot. Use the refrigerator to keep cold foods cold.
- Keep raw meat away from other foods.
 Try to use a different cutting board for fruits and vegetables.



What's wrong with the picture?
Why is it important to follow safety rules when you are storing or preparing food?
Discuss your answers with a partner. What else did you learn?

Healthy Lifestyles

1. Listen as a teacher or selected students read the healthy lifestyles statements below. After each statement, follow one of the movement directions in the box.



- Raise your arms straight up if this is something you do all the time.
- Put your hands on your head if you do this some of the time.
- Hold your arms straight out in front of you if you are just getting started doing this in your life.

2. Fill in the box next to any statement you already do all the time.
I try to watch my portions and eat just the right amount of food.
I eat plenty of fruits and vegetables each day.
I do not share drinks with others.
I choose to drink water, especially between meals.
I exercise every day. Just the
I wash my hands before I eat.
I try to make healthy choices when eating away from home.
I eat a healthy breakfast every day.
I cover my mouth when I cough or sneeze.
I get plenty of sleep each day.
I take care of my teeth each day.
I watch how many "sometimes" foods I eat each week.
I follow safety rules on the playground and when playing sports.
3. Which healthy habit will you work on next? How?

Make a "Healthy Me" Mini-Book

Directions: Write a "mini-book" story about a day in your life when you are practicing a healthy lifestyle. Plan to include pictures with your story. Remember what you have learned about eating healthy foods. Think about other things people do to stay healthy, such as exercising, germ prevention, and getting enough rest. You might write about what you and your friends do to stay healthy.

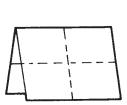
- 1. Use scratch paper or the back of this page to plan your story. It will have a cover and seven "book" pages.
- 2. Follow the directions below to create the mini book. Use a white sheet of paper. (If possible, use $11" \times 17"$ paper to allow more room for illustrations.)
- **3.** Create a title page.
- **4.** Copy your 7-page story into the book and illustrate it.

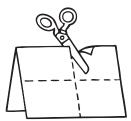
How to Make a Mini-Book

Step 1: Hold the paper tall (short-side at top). Fold down, then across, then down again. You should now have 8 rectangular sections.

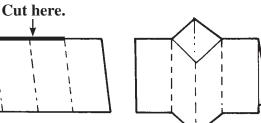


Step 2: Open the paper to the first fold. Cut halfway down. This will create the slit.

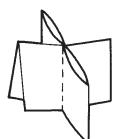




Step 3: Open the paper so the slit is now on the top. You should have a long strip with four boxes.



Step 4: Push the two edges together so the cut pages form a square. **Step 5:** Continue pushing until the square is gone.



Step 6: Fold all the pages and crease them. You should have an 8-page book.



Dental Health

Eating healthy foods helps our teeth and gums stay healthy. We also keep our teeth healthy by brushing and flossing after eating. Flossing our teeth removes the bits of food that get stuck where a toothbrush cannot reach.

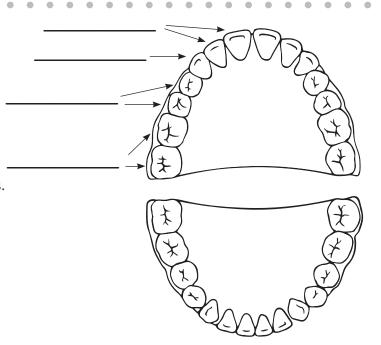
Our teeth need calcium and the other nutrients we get from our food to grow strong and healthy. We need our teeth to help us chew our foods so we can digest them.

Types of Teeth

Our front teeth are called **incisors**. They cut food and guide it into our mouths. Next to our four front teeth are the **cuspids**. Some people call them **canine** teeth because they have one point. They help us tear foods such as vegetables and meat.

Bicuspids are right behind the cuspids. They replace your first and second **molars** when you are between about nine and eleven years old. They have larger flat surfaces to chew and grind food into smaller bits for swallowing.

1. Label the types of teeth.

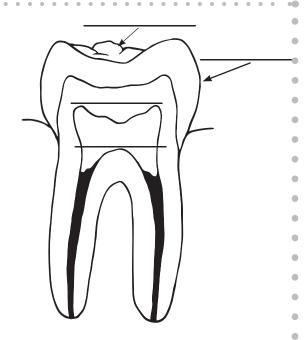


Parts of a Tooth

Each tooth has a crown and a root. The **crown** sits above the gum line and is the part of the tooth we see when we open our mouth. The **root** of the tooth is below the gum line.

The white part that covers the tooth is called the **enamel**. It protects our teeth when we bite and chew food. **Dentin** forms most of the tooth and supports the enamel. It is a little like bone and has some nerves that tell us if something is wrong with a tooth. The **pulp** is soft tissue inside the tooth. It contains blood vessels and nerves. It nourishes the tooth and sends signals to the brain.

2. Label the parts of a tooth.



Get Enough Sleep

Light helps us wake up in the morning. When it gets dark, our bodies get sleepy. This is a natural sleep cycle. Sleep helps our muscles, bones, and skin grow and repair injuries. Sleep helps our brains rest, too. When we are rested, we are more alert and more able to learn. How much sleep is enough? Young people need 10 to 11 hours of sleep each night.

Our bodies need rest to have energy each day. When we are rested. . .

- we have the energy we need.
- we can concentrate better, solve problems, and think of new ideas.
- we don't get sick as often because our bodies are better able to fight off disease.
- we get along better with our friends and family.



Directions: Record your sleep hours and your level of energy each day this week. On Friday, review the data to see how healthy your sleep patterns are.

- 1. Fill in the number of hours of sleep you got the night before at the beginning of each school day.
- 2. Mark your energy level on the chart at the end of class each day. Circle the appropriate word in the box.

Night	Hours of Sleep	Energy Level
Monday		Low → Medium → High
Tuesday		Low → Medium → High
Wednesday		Low → Medium → High
Thursday		Low → Medium → High

- 3. Evaluate the chart on Friday. How was your energy level?
- **4.** Do you get enough sleep?
- 5. What can you do to improve your sleep routine?

Physical Safety

Staying safe is one way we stay healthy. There are things we can do to stay safe in our daily lives.

Directions: Work with a partner. Fill in each blank with a word that makes sense. Discuss answers.

	G	etting Around Town ————————————————————————————————————
1.	The best place to cross the street is a	.t a
2.	Check for oncomingwalk signal.	even if you have a
3.	Pay attention to parkedan intersection.	when crossing at
4.	Some barriers that might keep cars for	rom seeing you include tall,
5.	Leave a	around you when you are riding your bike.
6.	Wear a	when riding a bike, skateboard, or scooter.
7.	Follow traffic safety	when riding a bike, skateboard, or scooter.
		School Bus Safety ————————————————————————————————————
1.	Talk	when riding the school bus.
2.	Keep aisles	on the school bus.
3.	Follow the driver'ssafety when riding the school bus.	rules about
4.	Step far enough before he or she moves on.	from the bus so that the bus driver can see you
5.	Wait for the bus driver's	before you cross the road.
6.	Look both ways to make sure cars h of the bus.	ave stopped before in front
		Stranger Danger ————
1.	It is not a good idea to talk to a strar	ger or accept a ride or a gift from someone we do not
2.	Some people we do not know can _ store security people.	us, such as police officers or
3.	You might be in a situation that is us	ncomfortable or seems dangerous. You should say
	i	f the person asks you to do something or leave with him or
	her	a trusted adult what happened.
4.		for your household about answering the door
	or the phone.	
5.	What are your home safety rules? V	Vrite them on the back of this page.

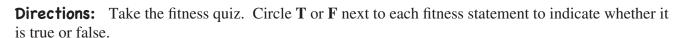
Physical Fitness

What does *physical fitness* mean? When we are "physically fit," we feel good, we eat well, and we get enough sleep. This gives us enough energy to do the things we want to do each day. Being in good shape (fit) helps us stay at a healthy weight. It helps our bodies fight illnesses, too.

Physically fit people get exercise at least three days each week.

There are many factors to fitness:

- Running, jumping, walking distances, swimming, climbing, and cycling are forms of **aerobic exercise**. This type of exercise helps our bodies use oxygen well (breathing) and strengthens our hearts.
- **Muscle strength** is important, too. We can improve muscle strength by doing different exercises and running in short bursts (sprints) of a few seconds up to 2 minutes.
- **Body composition** measures the amount of fat we have and compares it to how much lean muscle we have. When we have more lean muscle, it is easier to get in shape.
- People who are fit tend to be more **agile** and **flexible**. This means they can move quickly and they can bend or change directions easily. One way to increase flexibility is to stretch. When we stretch we straighten different body parts to their full length. Always stretch gently and hold each stretch instead of bouncing.



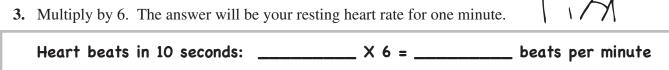
Fitness Quiz			
Т	F	1. Our bodies need exercise to breathe.	
Т	F	2. We should get aerobic exercise at least three times a week.	
Т	F	3. Our bodies should have more lean muscle than fat.	
Т	F	4. Sitting is an aerobic exercise.	
Т	F	5. We need to move our muscles to strengthen them.	
Т	F	6. Our muscles can never get any larger or stronger.	
Т	F	7. Stretching is a good way to maintain flexibility.	
Т	F	8. It is okay to bounce when stretching.	
Т	F	9. People who are agile cannot move or change direction quickly.	
Т	F	10. Being agile helps us stay safe.	

Heart Rate

Exercise helps our blood carry oxygen to all parts of our bodies. It also strengthens our heart muscles. Did you know your heart is a muscle?

To find your resting, or regular, heart rate, follow these steps:

- 1. Find your pulse on your wrist or neck.
- **2.** Have someone watch a clock for 10 seconds while you count the beats of your heart.



You can check your heart rate to make sure you are exercising with enough effort to help your body. The rate that helps you benefit from exercise is called your **target heart rate**.

The target heart rate for 8–11-year-olds is around 130 beats per minute (bpm).

- 1. After you exercise, find your pulse on your wrist or neck.
- 2. Have someone watch a clock for 10 seconds while you count the beats of your heart.
- **3.** Multiply by 6 to find your heart rate for one minute.

	Heart beats in 10 seconds:	X 6 =	beats per minute
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How close is your heart rate after exercise to your target heart rate?

Higher than 140 bpm	About 130 bpm	Lower than 120 bpm
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Directions: Use the chart below to track how your heart rate improves with regular exercise. The first line is an example.

Day	Exercise	Time	Heart Rate After Exercise		
example	running	20 minutes	150 bpm		
1.					
2.					
3.					
4.					
5.					
6.					
7.					

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Beanbags and Relays

Directions: Try the following activities for fun. They will help you stretch, focus on body movement, and improve your balance.

Beanbag Movement

Use small beanbags. Listen to any directions your teacher gives you. Try the following movements with the beanbag to get started. Place the beanbag. . .

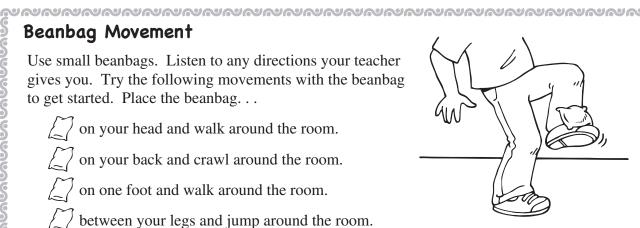
on your head and walk around the room.

on your back and crawl around the room.

on one foot and walk around the room.

between your legs and jump around the room.

on your shoulder and walk backward around the room.



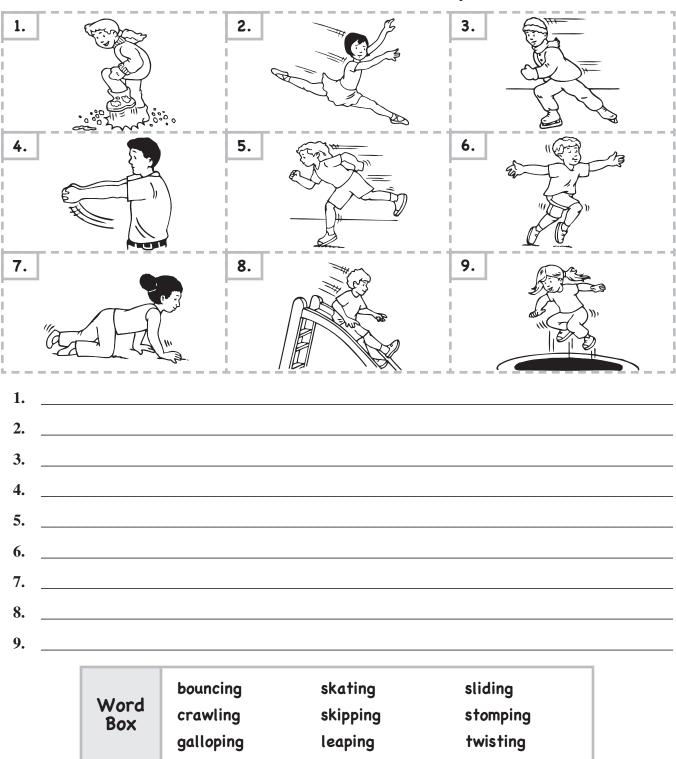
Beanbag Relay

- 1. Divide the class into teams. Each team will race against the others in a relay.
- 2. Walk to a determined point in the room (or outside). Listen as the teacher or other selected leader calls out movements for you to do. For example, the first time it is a student's turn, he or she will walk (from the predetermined point) with the beanbag on his or her head to another finishing point.
- **3.** He or she will pass the beanbag to the next competitor on the team.
- **4.** Once each student on the team has completed that activity, his or her beanbag should be placed on his or her foot.
- 5. The first team to have all of its members complete the action is the winner.



Active Days

Directions: Use an action verb from the Word Box to describe each picture in a sentence.



Challenge: Cut out the pictures and rank them from most active to least active.

Machine Movements

A machine is a tool with more than one part. Machine parts move or work together to apply force to move objects. Machines can make many tasks easier for us.

1. Do some research about the different tools or machines. Then, match each one to a movement.

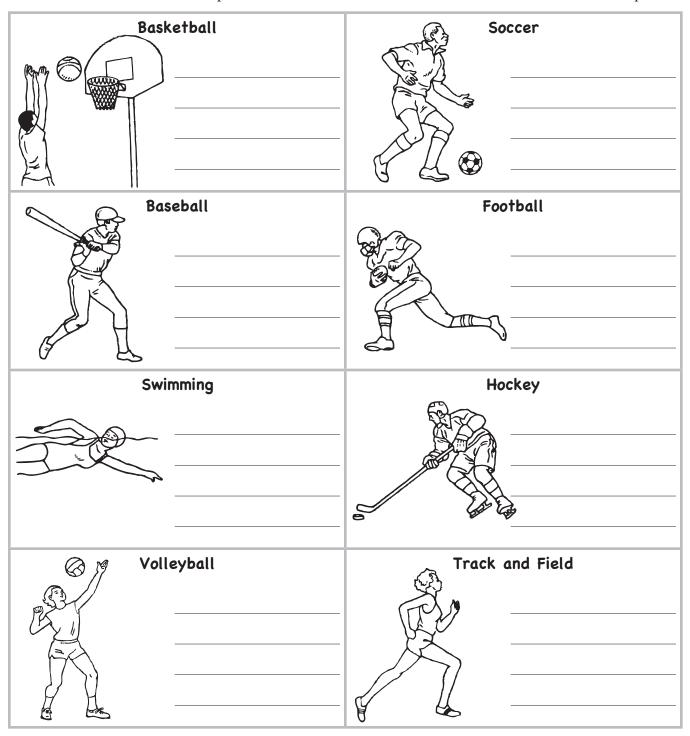
turns together		drill
grasps		pulley
moves up and down		crank and rod
turns and pushes		tongs
lifts	Engenne Longener	gears
rotates		wheels and axles
turns		lever
2. What are some ways you move like a machine every day?		

Challenge: Work with a small group to design a machine. Determine which parts your machine will have and which person will move like each part. Demonstrate (act out) your machine for the class.

Sports Field Day

We use many different movements and actions when we play sports. Think of the ways you move when you play your favorite sport.

Directions: Think about the sports below. Write action words for the movements used in the sport.

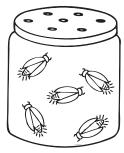


Challenge: Choose a sport to act out for the class. Use physical movements, not props. Try to guess which sports your classmates are demonstrating.

Summer Fun

There are different kinds of camps to attend in the summer. Most camps have games and other activities.

Directions: Pretend you are at summer camp. Practice the following activities with a partner. Focus on what skills are required and what muscles you would use.



	reeling in a fish	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	catching fireflies in a jar	
₩ ⁴	carcing memes in a jai	
	swimming	
1 0;	climbing a tree	
· M		
yuu,	shooting a basketball	
3000	shooting a baskerbatt	
Ju,		
	playing volleyball	
	rowing a boat	
•		
7111/2	hiking up a mountain	
7. C.		
ym,		
32	riding a horse	

Fitness Challenge

A **challenge** is a test of one's abilities. It might be something new that has not been practiced. It could require strength, agility, or a specific skill. Try each of the challenges below for one minute. See if you can improve the second or third time you try each activity.

	Challenge	1st	Time	2nd	Time	3rd	Time
1.	How many times can you toss a beanbag and catch it?						
2.	How many times can you clap your hands between tossing and catching a beanbag?						
3.	How many seconds or minutes can you dribble a ball?						
4.	How many times can you bounce a ball against the wall and catch it?						
5.	How many times can you bat a balloon or ball in the air?						
6.	How far can you skip on a line in 30 seconds?						
7.	How far can you jump from a standing position?						
8.	How long can you balance on your left foot?						
9.	How long can you balance on your right foot?						
10.	How many times can you hop back and forth in 30 seconds?						

★ Challenge: Think of a fitness challenge for your classmates to try.

The World Around You

The world in which we live offers many opportunities to stay active and fit.

1. Read the list of ideas below. Check the box next to activities you could do.

Lift your schoolbooks over your head 10 times before you do your homework. When you need a break, lift the books again 10 times.

Walk or run around a track at a local school. See if a member of your family will join you.

Help carry groceries in the house. Carry the milk back and forth a few times. If there is only one jug (container), carry it back and forth two or three times with each hand.

Help put the groceries away. Use a pair of small cans for weights:

Can you hold one can out in front of you and lift it over your head? How many times in a minute?

Can you lift both cans at once? How many times can you lift both cans in a minute?

Help with chores. Dance to music while you sweep, vacuum, or make the bed.

Rake leaves into a pile. Then put all the leaves in bags or containers.

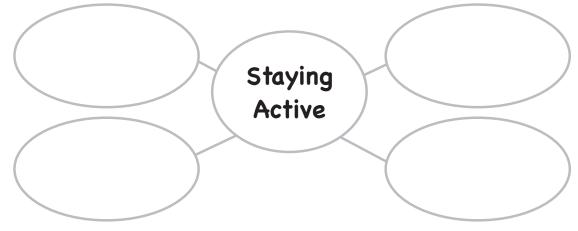
Think of different (safe!) ways to climb the stairs. Go up two stairs, then back down one.

Help family members plan an outing you can all do together. Perhaps you can walk or ride

Climb two more stairs, then go back down one. Continue to the top of the stairs.

2. Brainstorm other ways you can stay active in your community or neighborhood.

bikes on a path in your community.



3. Set a goal of two things from the list or the web to try this week. Write your goals below.

I will ______.

I will_____

Healthy Habits Game

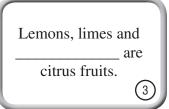
Make a game about healthy habits to play with your friends.

- 1. Make a game board or enlarge the sample below. Include obstacles and shortcuts for players. (e.g., Hop ahead two spaces, you ate a salad! or Go back 3 spaces, you didn't exercise today!) Decorate it with pictures of healthy habits.
- **2.** Create a set of 20 or more game cards. Number the cards. Each card should have a healthy habits question. Answers can be fill-in-the-blanks or True or False. Here are some suggestions:

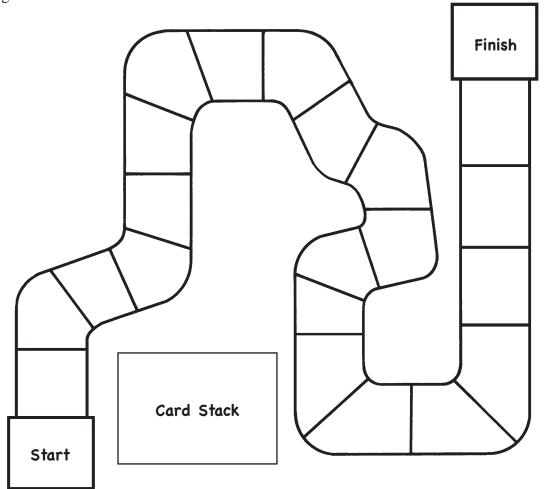


Broccoli is a healthy vegetable. We eat the stem and the flowers.

True or False? (2)



- 3. Create an answer key to match the numbers on the cards.
- **4.** Play the game with your friends to review what you have learned. Each player will have a token, such as a button of a different color. Use a number cube, die, or a simple spinner to move around the game board.



Relay Activities

Relay 1

- 1. Set up the relay so that each team has an object with a target. You can use a box, can, or even a space marked on the floor with tape. Each team's object should fit in the target space.
- 2. The first team member will carry the object from the start to the finish, placing the object in the target before returning to the team.
- **3.** The second player advances to retrieve the object from the target area and carries it back to the next team member.
- **4.** Continue in this manner until all players have had an opportunity to drop off or retrieve the object.

Optional: Vary the ways students move from start to finish or vary the distances.

Relay 2

- 1. Divide students into teams (as many teams as balls and targets, such as baskets, available).
- 2. Have team members count off and remember their numbers!
- **3.** Call a number at random, (e.g., number four). Each number four player will try to throw the ball in the target as many times as possible within a time set on a timer, (e.g., 10 or 20 seconds).

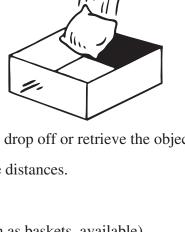
Relay 3

- 1. Set up the relay by writing different movements on cards or slips of paper. You will need a set of cards for each team.
- 2. Place each team's cards in a container at the start of the relay. Each player will draw a card from the container. The card will dictate the way in which he or she moves to get from the start to the finish.
- **3.** Each subsequent player will draw a card from the container with a different movement.
- **4.** Suggestions for movements include the following: *walk, walk backward, jog, jog backward, skip, hop, gallop, slide, jump, walk heel-to-toe, walk on tip-toe, walk on heels, crab walk, etc.*

Juggling

- **1.** Have students try various juggling activities using scarves or small, lightweight balls.
- **2.** Students should start with practicing tossing one scarf or ball and catching it with the same hand. Have them practice with each hand.
- **3.** Students then progress to tossing two balls and catching one ball in each hand.

Teacher Note: Students may practice these moves with partners to make it easier. As students gain proficiency, they can try juggling three objects in a cascading circle, with one in the air as they are catching the other two.

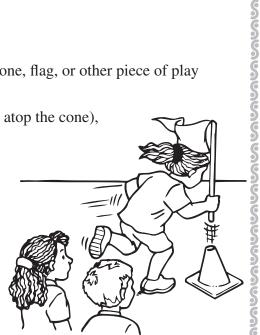




Outdoor Activities

Capture the Flag

- 1. Invite students to try to capture an object, such as a cone, flag, or other piece of play equipment.
- **2.** Place the object in the center of the playing space (or atop the cone), with students arranged around a marked perimeter.
- **3.** Select a student to act as guard. Other players try to capture the object without getting caught.
- 4. If it is too easy for players to capture the object, the one who captures it must return to one of the corners of the marked area safely without being tagged.
- **5.** Vary the game by using different objects, different names for the guard, and different ways to set up and capture.



Jumping Activities

Give students opportunities to develop coordination and endurance with these jumping activities (with or without jump ropes). Challenge students to try different steps and patterns when they jump.



- **1.** Jump with one foot at a time or both feet at the same time.
- 2. Have students spread their feet apart as they jump.
- **3.** Mark a line on the ground with chalk. Have students stand with both feet on one side of the line. Then jump forward with both feet over the line. Have students try jumping forward and backward.
- **4.** Challenge students to think of their own patterns of movement combining skips, hops, jumps, and different kinds of steps. Have students take turns sharing their patterns with the group. Arrange students in a circle or series of lines to follow the student leaders.

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