

Fruit: Facts, Fun and Fitness

Skills: Visual Art, Health, Math

Objective: Students learn the nutritional benefits of eating fruit.

Background

According to the US Department of Agriculture, fruit is one of the five food groups required for a healthy diet. The amount of fruit you need depends on your age, sex and level of physical activity. Recommended daily amounts for children who get less than 30 minutes of physical activity daily are shown in the following chart:

DAILY RECOMMENDATION

Children	2-3 years old	1 cup
	4-8 years old	1 to 1 1/2 cups
Girls	9-13 years old	1 1/2 cups
	14-18 years old	1 1/2 cups
Boys	9-13 years old	1 1/2 cups
	14-18 years old	2 cups

The recommended cup of fruit can be one cup of any fruit or 100 percent fruit juice. Since dried fruit is condensed, only a half the amount is required. Fruits may be eaten fresh, canned, frozen, or dried, and may be whole, cut up or pureed. Some commonly available fruits are:

apples	apricots	avocado	bananas
blueberries	cantaloupe	cherries	grapefruit
grapes	honeydew melon	kiwi fruit	lemons
limes	mangoes	nectarines	oranges
papaya	peaches	pears	pineapple
plums	prunes	raisins	raspberries
star fruit	strawberries	tangerines	watermelon

Fruit juices commonly available as 100 percent fruit juice include: orange, apple, grape, and grapefruit.

People who eat more fruits and vegetables as part of an overall healthy diet are less likely to get some chronic diseases. Fruits also provide nutrients vital for health and maintenance of the body. For example:

- Most fruits are naturally low in fat, sodium, and calories. None have cholesterol.

P.A.S.S.

GRADE 3

Health—3.1,6

Physical Education—1.5;
3.3; 5.3

Math Process—1.1,2,3;
2.1; 4.3,4; 5.1,2

Math Concept—5.1ac,2ab

Visual Arts—3.1,2

GRADE 4

Health—3.1,6

Physical Education—5.2

Math Process—1.1,2,3;
2.1; 4.3,4; 5.1,2

Math Concept—5.1ab

Visual Arts—3.1

GRADE 5

Health—1.4; 3.10

Physical Education—
5.3,5; 7.3

Math Process—1.1,2,3;
2.1; 4.3,4; 5.1,2

Math Concept—
2.1bd,3.1b; 5.1acde,2b

Visual Arts—3.1

Materials

carpet board

Velcro ping pong balls

magazines

paper or poster board

scissors

glue

bite-size pieces of a variety of firm fruits

toothpicks

serving plate, optional

colorful beanbags, balls and/or foam disks

hoola hoops, baskets, boxes, or areas marked off on ground to use as goals

- Fruits are important sources of many nutrients, including potassium, dietary fiber, Vitamin C, and folate (folic acid).
- Diets rich in potassium may help to maintain healthy blood pressure. Fruit sources of potassium include bananas, prunes and prune juice, dried peaches and apricots, cantaloupe, honeydew melon, and orange juice.
- Dietary fiber from fruits, as part of an overall healthy diet, helps reduce blood cholesterol levels and may lower risk of heart disease. Fiber is important for proper intestinal function. Fiber-containing foods such as fruits help provide a feeling of fullness, with fewer calories. Whole or cut-up fruits are sources of dietary fiber; fruit juices contain little or no fiber.
- Vitamin C is important for growth and repair of all body tissues, helps heal cuts and wounds, and keeps teeth and gums healthy.
- Folate (folic acid) helps the body form red blood cells.

A diet rich in fruits and vegetables may provide health benefits throughout life, including:

- Reduced risk for stroke and perhaps other cardiovascular diseases.
- Reduced risk for type 2 diabetes.
- Protection against certain cancers, such as mouth, stomach, and colon-rectum cancer.
- Reduced risk of coronary heart disease.
- Reduced risk of developing kidney stones and decreased bone loss.
- Reduction in calorie intake.

And finally, all these nutrition benefits come from foods that taste delicious!

Health/Physical Education

1. Read and discuss background and vocabulary.
2. Play “Fruit Fun Facts,” using provided question cards (with answers), carpet board and Velcro ping pong balls. Instructions are included with this lesson.
3. Provide cut up firm fruit for fruit kabobs.
 - Students will spear fruit pieces with toothpicks and arrange on serving plates or eat immediately.
4. Play Fruit Fitness.
 - Students will perform movements as you read them from the “Fruit Fitness” cards included with this lesson.
5. Play Fruit Toss.
 - Use colorful beanbags and hula hoops or areas marked off on the floor as goals or colorful balls plus baskets or boxes as goals.
 - Relay teams or individuals race to throw beanbags or balls into one or more of the goals.
 - Optional: goal color must match ball/beanbag color.
 - One team member may be needed to catch and return any missed throws.

—Discuss the fruit rainbow as you play, naming the many colors of various fruits.

6. Play Fruit Circle.

—Participants number off, then scramble, so as not to be in order.

—Participants form a large circle.

—Participant #1 receives a colorful ball, foam disk or fake fruit and throws to participant #2.

—Participant #2 throws to #3, etc. until the object is thrown to all participants.

—During the second round, another ball/disk/fruit is added and thrown in the same order.

—Each participant is responsible for making sure the next person is watching and ready to catch his/her pass as well as being ready to catch the next item.

—A third or fourth item can be added with the same throwing/catching plan.

Visual Arts

1. Working in groups of 3-4, students make collages of fruit pictures cut from old magazines.

—Optional: divide collages into thirds: fruit grown on trees, fruits grown on bushy plants, fruits from low-growing plants.

2. Using the collage approach, students cut fruit pictures from magazines.

—Students place pictures on a tall wedge or triangle (representing the fruit segment on USDA's MyPyramid: mypyramid.gov) according to whether they would be on the top of the triangle (apple pie), at the bottom (fresh peach) or somewhere in the middle (fruit cocktail).

Math

1. Students will work in groups.

—Students will make six columns on a page and label the columns: Red, Blue, Yellow, Green, Orange, and Purple.

—In each column, students write the names of as many fruits of that color as they can.

—Students count and compare their lists with those of other groups.

—Students determine the range (spread) and mean (average) of their lists.

—Discuss percentages, (e.g., “What percentage of the groups listed apricots as orange”) and fractions (e.g., What fraction of the groups failed to list avocado).

—Students construct bar graphs or pictographs using pictures of fruit from the group list data.

—Students discuss the probability (more, less, or equally likely) that certain fruits will be on every list.

2. Students list up to five of their favorite fruits and list all the possible ways the fruits could be combined.

Vocabulary

calorie—the heat energy required to raise the temperature of one gram of water one degree Celsius

cardiovascular—of, relating to, or involving the heart and blood vessels

cholesterol—a waxy substance that is present in animal cells and tissues, is important in bodily processes, and may be related to the abnormal thickening and hardening of arteries when too much is present

chronic—continuing or occurring again and again for a long time

condense—to change from a less dense to a denser form

coronary—of, relating to, or being the vessels that carry blood to or away from the heart

diet—the kind and amount of food selected for a person or animal for a special reason (as improving health)

disease—an abnormal bodily condition of a living plant or animal that interferes with functioning and can usually be recognized by signs and symptoms

fiber—mostly indigestible material in food that stimulates the intestine to move its contents along

fruit—the ripened ovary of a seed plant (as an apple or raspberry) when sweet and pulpy

healthy—the condition of being sound in body, mind, or spirit

nutrient—furnishing nourishment

nutrition—the act or process of nourishing or being nourished

puree—a paste or thick liquid usually made by rubbing cooked food through a sieve

Fruit Fun Facts

Use felt tip marker to label carpet board as shown below:

1	2	3
4	5	6

Copy the fruit card pages on the following pages on different colored card stock and cut into cards.

Arrange the cards in six stacks according to color.

Number the stacks 1-6.

Rules can vary but should be kept simple and fit the needs of the situation. Students may play in teams or as individuals.

Each participant throws a Velcro ping pong ball at the carpet board.

Leader will select a question from the stack of cards represented by the number the player hit on the carpet board.

This can be a game of elimination, points, or speed (first person or team to answer 15 questions correctly). Questions could alternately be asked without cards by simply grouping them by tens reading questions from the six groups.

Fruit Fun Facts

GROUP 1

1. Which fruit has its seeds on the outside? Strawberries
2. Name a fruit known as a good source of potassium?
Banana...
3. Which fruit is 90% moisture? Watermelon
4. Which fruit is very often eaten as a vegetable? Tomato
5. Name a "stone fruit". Peach, nectarine, plum, apricot
6. Name a fruit that is red on the outside, white inside. Apple
7. Name a fruit that is brown, hard and rough on the outside, white inside. Coconut
8. Name a citrus fruit. Orange, lemon, grapefruit, lime, tangerine, Clementine
9. What vitamin is citrus fruit known for? Vitamin C
10. Name a fuzzy fruit. Peach, apricot, kiwi

GROUP 2

1. What color is a star fruit? Yellow
2. What fruit looks like it has shingles for an outer skin?
Pineapple
3. Name a fruit that grows in bunches. Grapes
4. Name a fruit whose seed is called a pit. Cherry
5. Name a fruit that is rich in a healthy fat. Avocado
6. Name a fruit that comes in red, black or green colors.
Grapes and plums
7. What fruit is rich in Licopene? Red—tomatoes, watermelon, red grapefruit
8. Name a fruit that would be very good on cereal. Banana, strawberry, peach, blueberry
9. Name a fruit that you would need to wash before eating.
ALL of them
10. Name a fruit that has edible seeds. Tomato, pomegranate, banana, blueberries...

GROUP 3

1. Name a fruit that is high in fiber. Banana, apple, strawberry...
2. What fruit can we drink as juice? Orange, apple, grape...
3. Name a fruit with edible skin. Grapes, tomato, star fruit, blueberries, apple, pear...
4. Name 2 fruits that are yellow. Banana, pineapple, star fruit, lemon, pear...
5. Name a fruit you can eat in one bite. Cherry, strawberry, raspberry, blackberry, blueberry...
6. What must a fruit do to taste sweet? Ripen
7. Name a fruit that is very good dried. Apple, apricot, plum, grape, cherry...
8. What is the sugar in fruit called? Fructose
9. Which is healthier to eat, one apple or a slice of apple pie?
Apple
10. Name a fruit that is good eaten for breakfast.

GROUP 4

1. Name a fruit that makes a good snack. Any fruit
2. What do we call dried grapes? Raisins
3. What does fresh fruit have that juices lack? Fiber
4. Name a fruit that grows in the tropics. Mango, pineapple, papaya...
5. Name a fruit that grows well in Oklahoma. Strawberry, peach, apricot, pear...
6. Name a fruit that grows well in colder climates. Apple, cranberry, blueberry...
7. Name a fruit that we nearly always peel before eating. Orange, lemon, grapefruit, lime, banana, kiwi...
8. Name a fruit that never needs peeling. Strawberry, other berries...
9. Name a fruit that may weigh 20 pounds or more.
Watermelon
10. Name a fruit that is good eaten right out of your hands.

GROUP 5

1. Name a fruit that may be best eaten with a fork or spoon.
Grapefruit, fruit salad
2. Name a fruit that is good both cooked and uncooked.
3. Name a fruit that is high in cholesterol. None
4. What is your favorite fruit?
5. What fruit does your family eat most often?
6. Name a fruit that needs sugar to taste really good. None, maybe lemon
7. Hawaii is famous for giving us what popular fruit?
Pineapple
8. What sliced fruit is very good spread with a little peanut butter? Apple
9. Name a fruit you can buy in a can.
10. Name a fruit you can buy frozen.

GROUP 6

1. Name a fruit you can buy fresh.
2. Name a fruit that was traditionally strung with popcorn and draped on Christmas trees long ago. Cranberry
3. Is fruit generally a good source of fat? No
4. Is fruit generally a good source of protein? No
5. Fruit is a good source of what nutrient? Carbohydrates
6. At what age is eating fruit important? All ages
7. Name a fruit that grows on a tree. Apple, citrus
8. Name a fruit that grows on bushes. Raspberry, tomato
9. Name a fruit that grows on plants on the ground.
Strawberry
10. Name a fruit that is perfectly safe to eat without washing your hands. None

Which fruit has its seeds on the outside?
Strawberries

Name a fruit that is red on the outside,
white inside. Apple

Name a fruit known as a good source of
potassium? Banana...

Name a fruit that is brown, hard and rough
on the outside, white inside. Coconut

Which fruit is 90% moisture? Watermelon

Name a citrus fruit. Orange, lemon, grape-
fruit, lime, tangerine, Clementine

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etable? Tomato

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Vitamin C

Name a stone fruit. Peach, nectarine, plum,
apricot

Name a fuzzy fruit. Peach, apricot, kiwi

What color is a star fruit? Yellow

Name a fruit that comes in red, black or green colors. Grapes, plums

What fruit looks like it has shingles for an outer skin? Pineapple

What fruit is rich in Lycopene? Red—tomatoes, watermelon, red grapefruit

Name a fruit that grows in bunches. Grapes and bananas

Name a fruit that would be very good on cereal. Banana, strawberry, peach

Name a fruit whose seed is called a pit. Cherry

Name a fruit that you would need to wash before eating. ALL of them, with (possible exception of bananas)

Name a fruit that is rich in a healthy fat. Avocado

Name a fruit that has edible seeds. Tomato, pomegranate, banana, blueberries...

Name a fruit that is high in fiber. Banana,
apple, strawberry...

What must a fruit do to taste sweet? Ripen

What fruit can we drink as juice? Orange,
apple, grape, grapefruit...

Name a fruit that is very good dried.
Apple, apricot, plum, grape...

Name a fruit with edible skin. Grapes,
tomato, star fruit, blueberries, apple, pear...

What is the sugar in fruit called? Fructose

Name 2 fruits that are yellow. Banana,
pineapple, star fruit, lemon, pear...

Which is healthier to eat, one apple or a
slice of apple pie? Apple

Name a fruit you can eat in one bite.
Cherry, strawberry, raspberry, blackberry,
blueberry...

Name a fruit that is good eaten for break-
fast.

Name a fruit that makes a good snack.

Name a fruit that grows well in colder climates. Apple, cranberry, blueberry...

What do we call dried grapes? Raisins

Name a fruit that we nearly always peel before eating. Orange, lemon, grapefruit, lime, banana, kiwi...

What does fresh fruit have that fruit juices lack? Fiber

Name a fruit that never needs peeling. Strawberry, other berries...

Name a fruit that grows in the tropics. Mango, pineapple, papaya...

Name a fruit that may weigh 20 pounds or more. Watermelon

Name a fruit that grows well in Oklahoma. Strawberry, peach, plum, apricot, pear, watermelon...

Name a fruit that is good eaten right out of your hands.

Name a fruit that may be best eaten with a fork or spoon. Grapefruit, fruit salad...

Name a fruit that needs sugar to taste really good. None, maybe lemon

Name a fruit that is good both cooked and uncooked. pear, peach, cherry, blueberry . .

Hawaii is famous for giving us what popular fruit? Pineapple

Name a fruit that is high in cholesterol.
None

What sliced fruit is very good spread with a little peanut butter? Apple

What is your favorite fruit?

Name a fruit you can buy in a can. peach, pear, apricot, cherry, . . .

What fruit does your family eat most often?

Name a fruit you can buy frozen. strawberry, peach, blueberry, . . .

Name a fruit you can buy fresh.

At what age is eating fruit important? All ages

Name a fruit that was traditionally strung with popcorn and draped on Christmas trees long ago. Cranberry

Name a fruit that grows on a tree. Apple, citrus...

Is fruit generally a good source of fat? No

Name a fruit that grows on bushes. Raspberry, tomato...

Is fruit generally a good source of protein? No

Name a fruit that grows on plants on the ground. Strawberry...

Fruit is a good source of what nutrient? Carbohydrates

Name a fruit that is perfectly safe to eat without washing your hands. None

Fruit Fitness Cards

blueberry bounce	banana bend
leaping lemon	grapefruit grab
strawberry stretch	Charleston cherry
tomato twist	peach pirouette
kiwi kick	pear pitch (or pass)
pomegranate plie	raspberry run (or reach)
star fruit sparkle	mango march
persimmon pucker	watermelon wiggle
apple airplane	honeydew hop