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ASSIGNMENT SHEET

FRUITS AND VEGETABLES GROUP

DATE DUE _____

NAME _____ HOUR _____

DIRECTIONS: Complete all activities. A challenge project must be completed to earn an "A" on this unit. Put your unit together in the order listed below.

TEACHER	STUDENT	INDIVIDUAL ACTIVITIES (Points Possible)
_____	_____	1. CHEC CAREER MODULE (20)
_____	_____	2. COMPUTER PROGRAM (20)
_____	_____	3. FRUIT BROWNING EXPERIMENT CHART (20)
_____	_____	4. FRUIT & VEGETABLE CROSSWORD PUZZLE (20)
_____	_____	5. FRUIT & VEGETABLE DISCOVERY (20)
_____	_____	6. IN THE KNOW (20)
_____	_____	7. PRODUCE PUZZLE (20)
_____	_____	8. SCRAMBLE (20)
_____	_____	9. SHOPPING FOR FRUITS & VEGETABLES (20)
_____	_____	10. SORTING OUT YOUR VEGETABLES (20)
_____	_____	11. VIDEO AND WORKSHEET (20)
_____	_____	12. LEARNING ABOUT FRUITS AND VEGETABLES (20)
_____	_____	13. WHAT'S UP DOC? (20)
_____	_____	14. VEGETABLE BOWL REVIEW SHEET (20)
_____		SUB TOTAL
_____		MANAGEMENT OF CLASS TIME AND ROOM (20)
_____		SUMMARY SHEET(24)
		CHALLENGE PROJECT
_____	_____	IN THE SUPERMARKET (30)
_____	_____	HELLO JELL-O (30)
_____	_____	MAKING RAISINS (30)
_____		TOTAL
_____		GRADE

SUMMARY SHEET

Name _____ Class _____

Day One

- 1.
- 2.
- 3.

Day Two

- 1.
- 2.
- 3.

Day Three

- 1.
- 2.
- 3.

Day Four

- 1.
- 2.
- 3.

Day Five

- 1.
- 2.
- 3.

TRIVIA QUESTIONS

1. **WHAT FRUIT WAS ORIGINALLY KNOWN AS A "LOVE APPLE"?**
The tomato
2. **WHAT PART OF THE TOMATO CONTAINS THE MOST VITAMIN C?**
The jelly-like material surrounding the seeds
3. **WHAT HAS MANY EYES AND REALLY PREFERS THE DARK?**
Potato
4. **WHAT WAS USED AS THE FIRST SALAD DRESSING?**
Salt. Salad was given its name by the Romans who invented it. Salad means salt in Latin.
5. **WHICH COUNTRY DID THE CAESAR IN "CAESAR SALAD" COME FROM?**
Mexico. Caesar Cardini, a restaurant owner, created this gourmet salad when he ran short of supplies and had to use what he had on hand.
6. **WHEN IS SALAD SERVED IN A VERY FORMAL MEAL?**
Right after the main course (entree), just before dessert
7. **WHAT COLOR WERE CARROTS BEFORE THEY WERE ORANGE?**
Purple. Orange carrots were developed from seeds of purple and yellow carrots.
8. **WHAT IS THE HAIRY FRUIT THAT CONTAINS 1,300 UNITS OF VITAMIN C?**
Kiwi fruit
9. **WHAT SMALL FRUIT IS A MEMBER OF THE ROSE FAMILY, HAS 2,380 UNITS OF VITAMIN A AND POTASSIUM AND IS GOOD WHEN DRIED?**
Apricot
10. **WHAT IS THE FRUIT FROM MEXICO CALLED WHOSE NAME RHYMES WITH A SPANISH DANCE? (TANGO)**
Mango
11. **A TANGELO IS A CROSS BETWEEN WHAT TWO FRUITS?**
A tangerine and a grapefruit
12. **WE GET 90% OF OUR INTAKE OF THIS VITAMIN FROM FRUITS AND VEGETABLES. WHAT IS IT?**
Vitamin C

FRUITS AND VEGETABLES-----MOTIVATOR

13. WHAT DO BROWN SPOTS ON A BANANA'S SKIN MEAN?
It is sweet
14. WHEN SHOULD YOU STORE TOMATOES IN THE REFRIGERATOR?
After they are ripe
15. PUT TOGETHER THE FRENCH WORD FOR APPLE AND A KIND OF ROCK TO NAME THIS RED, MULTI-SEEDED FRUIT?
Pomegranate
16. WHAT FRUIT OR VEGETABLE IS SOMETIMES KNOWN AS "BLOODSHOT CELERY"?
Rhubarb
17. FROM WHAT VEGETABLE IS SAUERKRAUT MADE?
Cabbage
18. WHY DO POTATOES SOMETIMES HAVE A GREEN COLOR ON THEIR SKIN?
They have been sunburned. The peeling is toxic and should be removed before eating.
19. BELOW IS A ROMANTIC LITTLE PROPOSAL. FILL IN THE BLANKS WITH NAMES OF FRUITS AND VEGETABLES.

IF WE _____, _____ MARRY.
cantaloupe, lettuce

DO YOU _____ ALL FOR ME?
carrot

MY HEART _____ FOR YOU.
beets

WE WILL BE A _____ OF A _____.
peach pear

20. WHAT IS PROBABLY AMERICA'S FAVORITE VEGETABLE?
The potato. Sometimes we think it's fattening. Actually, it is the method of preparation (frying) or the toppings that make it so.
- 1 medium baked potato--90 calories
 - 1 mashed potato with milk and butter--93 calories
 - 1 tablespoon margarine or butter--100 calories
 - 1 tablespoon sour cream--25 calories
 - 1 tablespoon yogurt--15 calories
 - Herbs and spices--0 calories

21. **WHERE ARE MOST OF THE NUTRIENTS FOUND IN FRESH FRUITS AND VEGETABLES?**
Just under the skin
22. **HOW CAN YOU CHOP AN ONION WITHOUT CRYING?**
Place it under cold, running water or slice the root end off last. The root end of the onion is the source of the strong odor.
23. **WHAT NUTRIENT IN FRESH FRUITS MAKES THEM SO JUICY?**
Water. Aside from water, carbohydrates are the main constituent.
24. **THERE ARE ONLY TWO FRUITS THAT ARE HIGH IN FAT. WHICH TWO?**
Olives--3 medium (67 calories)
Avocados--1 medium (325 calories)
25. **WHY DOES A BANANA USE SUNTAN LOTION?**
Because it peels.
26. **SUSHI IS RAW FISH WRAPPED IN WHAT VEGETABLE?**
Seaweed
27. **WHERE DID THE BABY EAR OF CORN COME FROM?**
The stalk brought it.
28. **WHAT FRUIT IS NEVER LONELY?**
A pear

VEGETABLE OF THE DAY

DIRECTIONS: Have a "Vegetable of the Day" and tell students about some of the origins of favorite vegetables and their nutritive values. Have students use a reference book to find the RDA and share the information with the class. Hold up a picture and ask students what the vegetable of the day is--Sesame Street style.

TOMATOES--Tomatoes are native to South America. Early explorers brought tomatoes to Europe. They looked like apples to the Spanish people, then called Moors. The French misunderstood the Italian "Pomi del Moro" or "Moors" apples and called them "pommes d'amour" or "love apples". The English then stole this custom from the French and would give a "love apple" to young ladies they admired. Sir Walter Raleigh is said to have presented one to Queen Elizabeth.

CARROTS--Carrots were first a reddish-purple color. A different variety was yellow. In the 17th Century these two (reddish-purple and yellow) were combined together in the Netherlands and were orange in color. The Greeks and Romans thought carrots were medicine, not a food. They grew them as medicinal herbs. In the 18th Century women in England wore the feather carrot leaves in their hair. Off the coast of Scotland, they were so treasured, they were given as party favors.

PARSLEY--Parsley once crowned the heads of victorious athletes during the Greek and Roman times. Bouquets of parsley were used as decorations in their banquet halls. Parsley was used in English castles to heal the fish in the moats when they looked sick. It was also used as a cure for human baldness.

LETTUCE--For many centuries lettuce was considered too delicate treat for anyone but royalty. The Greeks served it at the conclusion of their meals. Romans ate it before the evening meal, accompanied with eggs. Lettuce was such a wonderful dish that Romans watered their lettuce beds with sweet wine when there was no rain!

WATERCRESS--Watercress has been around for about two thousand years. Ancient Persians fed it to their children to help them grow. The Greeks thought it would help the mentally ill solve their problems. The early American settlers brought it with them and served it at the first Thanksgiving dinner.

CABBAGE--Cabbage was brought to North America in 1541 by Jacques Cartier, who planted it in Canada. The ancient Egyptians worshipped cabbage as a god. On the altars in their shrines, they placed heads of choice cabbage before which they bowed their heads.

POTATOES--The Inca Indians of Peru were the first known people to cultivate the potato. As far back as 500 B. C., they worshipped a potato goddess. The potato was held in very high esteem in Ireland during the 1700's. Irish priests would drench the field with holy water in hopes of a more abundant crop. Marie Antoinette was the envy of the commoners as she paraded through the French countryside wearing potato blossoms in her hair as a decoration.

(Adapted from What's Cooking in Vegetable Land?, Campbell Soup Company, The Potato Board)

LEARNING ABOUT FRUITS AND VEGETABLES

DIRECTIONS: Share some of these facts to students as an introduction to this unit.

1. **What is the difference between a fruit and a vegetable?**
A vegetable is an edible plant. It can come from any part of the plant. Fruits are only the edible flesh around the seed of a plant after it has flowered.
2. **The word vegetable comes from the Latin word vegetus meaning lively. The word fruit comes from the Latin word, fructus, meaning enjoyment.**
3. **What does "in season" mean when referring to fresh fruits and vegetables?**
It means they are ripe and are found more abundantly at this time. They are also usually fresher, better tasting and less expensive.
4. **Always handle fresh produce carefully. It is easily bruised and damaged. If customers handle the produce and damage it, the store may raise the price to cover their losses.**
5. **Refrigerated transportation, canning and freezing are reasons we are able to enjoy fruits and vegetables all year long.**
6. **Fruits and vegetables are usually low in calories, but rich in vitamins and minerals.**
7. **It is very important to wash fruits and vegetables before eating to remove insecticides, dirt and insects.**
8. **Most of the nutrients in fruits and vegetables are found just under the skin, close to the surface.**
9. **You can chop an onion without crying by placing under cold, running water or slicing the root end off last. The root end of the onion is the source of the strong odor.**
10. **It is important to rotate canned and frozen foods. Thus, the first items to be placed in storage should be the first to be used. Remember--FIRST IN, FIRST OUT!**
11. **Fast Food Production Method--Core a head of lettuce by hitting it against the side of any flat surface to loosen the core. It can then easily be removed with your fingers. This method is of value when the lettuce will be used immediately. Otherwise, it may bruise the lettuce and cause browning and rapid deterioration.**

FRUITS AND VEGETABLES-----LEARNING ABOUT FRUITS & VEGETABLES, continued

12. Unless you eat freshly picked foods from your own garden, you are more assured of good nutritional value by consuming either canned or frozen vegetables. It usually takes only two to four hours from field to processing. Quick handling is vitally important for retention of nutritional value.
13. Canned vegetables are already cooked and need only be heated before serving. Overheating destroys nutrients.
14. Frozen vegetables have been partially cooked and need only a few minutes of cooking time.
15. As most fruits ripen, the starch content turns to sugar and makes them sweeter. This is accomplished by the work of an enzyme. Fruits that are picked and eaten before they are mature do not taste nearly as good as those that are fully ripe. If you put fruit in the refrigerator, you slow down the work of the enzymes. If the enzymes work too long, the fruit spoils.
16. Fruits are juicy because of their high water content. Aside from water, carbohydrates are the main constituents.
17. Plants do not die after being picked. They still take in Oxygen and giving off carbon dioxide. If this can be slowed, the plant will stay fresher for a longer time. This can be accomplished by storing fruits and vegetables at a low temperature.
18. Vegetables are great for adding variety in color, flavor, texture and shape to meals. A variety of methods of preparation can be used.
19. Always ripen tomatoes before refrigerating or they will not develop their full flavor.
20. Citrus Fruits are a great source of vitamin C. When purchasing citrus fruits, look for smooth skins fruits free of blemishes and soft spots. The fruit should feel firm and heavy. Room temperature fruit yields the most juice, especially when it is rolled on the counter before squeezing.

SUMMARY QUESTIONS

1. **WHAT IS THE DEFINITION OF A VEGETABLE?**
An edible plant
2. **WHERE ARE MOST OF THE NUTRIENTS FOUND IN FRESH FRUITS AND VEGETABLES?**
Just under the skin
3. **WHAT IS THE STORAGE RULE FOR CANNED GOODS?**
First In--First Out!

FRUIT PIZZA DEMONSTRATION

DIRECTIONS: You may wish to use Fruit Pizza as a demonstration or a lab. It takes two days to complete unless you make the crust before class. Each lab unit can be assigned to prepare one of the fruits and then share it with the class.

DAY ONE--CRUST

1/2 cup sugar	1 cup plus 2 Tbsp. flour
6 Tbsp. margarine	1/2 tsp. baking powder
1 egg	1/4 tsp. salt
1/2 tsp. lemon extract	

Cream together sugar and margarine. Add egg and flavoring. Blend in flour, baking powder and salt. Cover and chill at least one hour.

Heat oven to 375 degrees. Roll or gently pat dough onto a round pizza pan or jelly roll pan. Bake 6-8 minutes or until lightly browned.

DAY TWO--FILLING

Mix an 8 oz. package of cream cheese with a 12 oz. carton of whipped topping. Spread this mixture over the cookie pizza crust.

A layer of strawberry Danish Dessert may be spread over the cream cheese layer.

Top with a combination of any of the following fruits (about four different kinds):

Fresh or canned peaches	Raspberries
Pears	Apples
Pineapple	Bananas
Oranges	Kiwi
Cherries	Grapes
Fresh or frozen strawberries	Strawberries

Be sure that canned fruits are well-drained. Dip apples and bananas in pineapple to prevent browning.

TANGY CAULIFLOWER DEMONSTRATION

DIRECTIONS: Demonstrate the preparation of Tangy Cauliflower and share it with the class.

TANGY MUSTARD CAULIFLOWER

1 medium head cauliflower (broken into flowerets)
1/4 cup water
1/2 cup mayonnaise
1 tsp. finely chopped onion
1 tsp. prepared mustard
1/4 tsp. salt
1 cup shredded cheddar cheese

Place the cauliflower and water in a 2 quart glass casserole. Cover and microwave 9 minutes on high. Drain water off of the cauliflower.

Combine mayonnaise, onion, mustard and salt in a small bowl. Place cauliflower on serving plate. Spoon sauce over cauliflower and sprinkle with cheese. Microwave 2-3 minutes on medium heat to heat the topping and melt the cheese. Let stand 2 minutes before serving.

SORTING OUT YOUR VEGETABLES

DIRECTIONS: Hand out pictures or large name cards of twenty different kinds of vegetables to students. List the appropriate classifications on the board. Students take turns coming to the front of the room and placing their vegetables under the proper category. Students should complete their own worksheet "Sorting Out Your Vegetables" as this activity takes place.

Plants have several parts which can be used as vegetables that are eaten.

CLASSIFICATIONS:

Fruits, flowers, stems, seeds, leaves, tubers, roots, bulbs

FRUITS: Tomato, cucumber, squash, eggplant, sweet pepper, pumpkin, watermelon, cataloupe

The fruit of a plant appears after the flower. Most of the vegetable fruits contain 80-90% water. The rest of the fruit is usually made up of carbohydrates. Tomatoes and green peppers are rich in Vitamin C. Pumpkin, squash, tomatoes and green peppers contain carotene which is a precursor of vitamin A.

FLOWERS: Cauliflower, broccoli

The flowers of plants are usually high in water and low in carbohydrates. Broccoli is a very nutritious example of a flower that is eaten. It is high in vitamin C and vitamin A and also contains riboflavin, calcium and iron.

STEMS: Celery, asparagus, mushroom, rhubarb

Flower and stems are generally high in water and low in carbohydrates. They are a rich source of fiber. They have a much better taste when cooked while fresh. When they are overmature they are tough and stringy.

SEEDS: Pease, snap beans, corn, lima beans

Vegetables used as seed can be planted to produce more vegetables. Water content is low in seeds. Corn is actually a cereal product, but is used as a vegetables in the United States. It contains a high percentage of carbohydrates.

FRUITS AND VEGETABLES-----SORTING OUT YOUR VEGETABLES, continued

LEAVES: Spinach, lettuce, cabbage, parsley, Brussels sprouts

Leafy vegetables are often used as salad greens. They are high in water and low in carbohydrates. They can be good sources of vitamin A. The greener the leaf of a vegetable, the higher its vitamin A value. The bleached inner leaves of plants such as celery contribute little vitamin A. Leafy vegetables are also good sources of calcium. Most of the calcium in spinach and beet greens is combined with oxalic acid in the plant, which prevents absorption in the digestive tract.

TUBERS: White potato

ROOTS: Carrot, beet, sweet potato, turnip, radish

Root vegetables grow underground and help supply the plant with food. It is the plant's storage bin. They have a green, leafy top that grows above the ground. The tops have a bitter taste, but are rich sources of vitamins A and C.

BULBS: Onion, garlic

Bulbs, roots and tubers are usually high in carbohydrates and low in water content. Much of the carbohydrate in potatoes is starch. Sweet potatoes and carrots contain large amounts of vitamin A.

SUMMARY QUESTIONS:

1. The vegetable fruits contain mostly what nutrient (80-90%)
WATER
2. What green vegetable is very high in vitamin A and vitamin C?
BROCCOLI
3. Name three vegetable parts that are usually very high in starch.
(ANY THREE) SEEDS, TUBERS, ROOTS, BULBS

A STORY ABOUT VITAMIN A

During World War I, many children in Denmark began developing eye trouble which often resulted in blindness.

A Danish physician, Dr. C.E. Bloch, researched to see if he could discover a reason that so many children were going blind. He found a report by Dr. E.V. McCollum who had done an experiment on rats. He fed two groups of rats a diet that was considered to be very good. Many of them, however, began to get sore eyes. He started feeding them butterfat and their eyesight returned to normal.

Dr. McCollum felt that there was something missing in the regular diets of the rats that caused them to develop the sore eyes. After many months of research, it was determined that this substance was vitamin A; the first vitamin to be discovered.

Denmark, at that time, was selling all of its butterfat to England and existing on skim milk. When butterfat was added to the diets of the children, their eyesight returned to normal.

Off the coasts of Newfoundland and Labrador, fishermen were encountering another difficulty with their eyesight. When it got dark, their eyes would not adjust to the darkness and they could not see to bring in their nets. (It is somewhat like walking into a dark theater during the daytime. It takes a while for our eyes to become accustomed to the dark so we can see.)

Someone, by accident, began eating fish livers. This lucky fisherman discovered that he no longer suffered from this "night blindness" and his eyesight returned to normal. He had also discovered a rich source of vitamin A--fish livers.

In many parts of the world today, people still suffer from eye disorders and night blindness because they do not get enough vitamin A in their diets. Dairy products, dark-green, leafy vegetables, and deep-yellow fruits and vegetables are good sources of carotene, which is converted into vitamin A.

SUMMARY QUESTIONS:

1. DURING WORLD WAR I, WHICH COUNTRY'S CHILDREN WERE DEVELOPING EYE DISEASE AND SOMETIMES BLINDNESS?
Denmark
2. WHICH WAS THE FIRST VITAMIN TO BE DISCOVERED?
Vitamin A
3. WHAT DISEASE DID THE FISHERMEN DEVELOP THAT MADE IT DIFFICULT FOR THEM TO DO THEIR WORK?
Night blindness

(Adapted from The Great Vitamin Mystery National Dairy Council--Marvin Martin)

VITAMIN A

Explain the importance of vitamin A to the body and identify fruits and vegetables which are good sources of vitamin A.

WHY WE NEED VITAMIN A

Vitamin A is a fat-soluble vitamin. A food rich in it vitamin should be eaten at least every other day.

Carotene is the pigment in orange, leafy green and yellow vegetables which gives it color. Usually, the deeper the color of vegetables provide greater amounts of vitamin A.

When it is ingested, the body breaks the carotene molecule in half. One half of it becomes Vitamin A and the other half is not used.

Vitamin A probably will not help your vision unless you are deficient in it. It does help with night vision--ability of your eyes to adjust quickly from light to dark.

Vitamin A influences your metabolism of foods to release energy to run your body.

It is important in stimulating growth because it is essential in the process of cell formation.

It helps you have shiny hair and smooth skin.

The following are fruit and vegetable sources that are rich in vitamin A. (Have students identify the percentage of the RDA in each serving as they hold up appropriate food comparison card.)

- RED:** Tomato (19%), Tomato juice (44%), Vegetable soup (72%), Watermelon (29%)
- YELLOW:** Carrots (167%), Sweet potatoes (270%), Cantaloupe (140%), Dried apricots (126%), Peaches (40%)
- GREEN:** Spinach (233%), Broccoli (52%), Peas (15%), Tossed salad (18%)

SUMMARY QUESTIONS:

1. IS VITAMIN A WATER SOLUBLE OR FAT SOLUBLE?
Fat soluble
2. WHAT IS THE PIGMENT IN ORANGE AND YELLOW VEGETABLES THAT GIVES IT ITS COLOR?
Carotene
3. NAME FIVE FUNCTIONS OF VITAMIN A IN THE BODY.
Helps eyes adjust from light to dark
Metabolizes food to release energy
Stimulates growth
Makes hair shiny
Makes skin smooth.

FOOD COMPARISON CARDS--VITAMIN A

Hand out the food comparison cards to the students. Draw a continuum on the board. Place the word "Vitamin A" in the center of the board. 0% should be written on one side of the board and 100% should be written on the other side. Have the students stand in front of the continuum, according to the percentage of Vitamin A their cards have. One at a time, narrow down the group to identify the foods containing over 100% of the RDA for vitamin A.

FOOD	VITAMIN A	CALORIES	FOOD	VITAMIN A	CALORIES
BROCCOLI	* 52%	23	APPLE	4%	90
CANTALOUPE	** 140%	41	APPLESAUCE	2%	174
CARROT STICKS	** 167%	21	BAKED POTATO	0%	92
BROCCOLI	* 52%	23	BANANA	7%	101
DRIED APRICOTS	** 126%	99	BEETS	1%	31
PEACH	* 40%	38	CAULIFLOWER	2%	18
SPINACH	** 233%	23	CELERY	5%	13
SWEET POTATO	** 270%	155	CHERRIES	3%	62
TOMATO JUICE	* 44%	35	COLESLAW	3%	59
VEGETABLE SOUP	* 72%	59	CORN ON COB	9%	70
WATERMELON	* 29%	42	DATES	1%	197
			FRENCH FRIES	0%	175
			FRUIT SALAD	17%	96
			GRAPEFRUIT	3%	48
			GRAPES	5%	107
			GREEN BEANS	8%	11
			LETTUCE	7%	9
			LIMA BEANS	6%	106
			ORANGE	8%	64
			ORANGE JUICE	11%	85
			PEAR	1%	122
			PEAS	15%	54
			POTATOES (MASHED)	5%	99
			PINEAPPLE	2%	66
			RAISINS	1%	118
			RASPBERRIES	3	47
			STRAWBERRIES	3%	55
			TOMATO	9%	15
			TOSSSED SALAD	18%	10

SUMMARY QUESTIONS:

1. NAME THE THREE FOODS HIGHEST IN VITAMIN A.
Sweet Potato (270%), Spinach (233%), Carrots (167%)
2. NAME THE FOOD HIGHEST IN CALORIES.
Sweet Potatoes
3. NAME THE FOOD LOWEST IN CALORIES.
Carrot Sticks

VITAMIN C

DIRECTIONS: Explain the importance of Vitamin C to the body. Identify fruits and vegetables which are good sources of vitamin C.

WHY WE NEED VITAMIN C

Another name for Vitamin C is ascorbic acid. It is a water soluble vitamin. Vitamin C requires tender, loving care if it is to be preserved. It dissolves in water. It becomes weakened if exposed to air. It is destroyed by heat. If you chop a vegetable and leave it out sitting in the air for an hour before serving, you have lost much of its vitamin C content. It is the most unstable of the known vitamins and the most easily destroyed in cooking.

Ascorbic acid helps build collagen in the body. Collagen forms bone, skin and supportive tissues. In the teeth it is called dentine. In the bones it is called the matrix and cartilage. Babies' bones are cartilage. If there is not enough vitamin C available, the bones will not be properly formed and later may become weak and porous. Mother's milk has four times more vitamin C than cow's milk.

Vitamin C cements body cells together with a glue-like substance and helps promote healing of wounds or cuts.

Ascorbic acid also helps to protect the body against bacterial infections.

People who do not get enough vitamin C often get colds, may bruise easily and have bleeding gums.

The following are fruit and vegetable sources that are rich in vitamin A. (Have students identify the percentage of the RDA in each serving as they hold up appropriate food comparison card.)

- RED: Apple (16%), Cherries (22%), Raspberries (51%), Strawberries (220%), Tomato (40%), Tomato juice (73%), Watermelon (28%)
- YELLOW: Banana (30%), Cantaloupe (112%), Grapefruit (112%), Pineapple (28%), Sweet potato (61%)
- GREEN: Broccoli (164%), Cabbage (44%), Lima beans (27%), Peas (26%) Spinach (67%)
- WHITE: Baked potato (50%), Cauliflower (114%),
- ORANGE: Orange (164%), Orange juice (212%)

SUMMARY QUESTIONS:

1. WHAT IS ANOTHER NAME FOR VITAMIN C?
Ascorbic Acid
2. HOW DOES VITAMIN C HELP IN THE HEALING OF CUTS?
It cements body cells together and helps form new tissue.
3. IS VITAMIN C WATER SOLUBLE OR FAT SOLUBLE?
Water Soluble

A STORY ABOUT VITAMIN C

A disease called scurvy has been around since Biblical times. Victims became very weak. They developed sunken eyes, bleeding gums and ugly skin sores. Their teeth became loose and their bones broke easily. Usually, a scurvy victim died a very painful death.

No one really knew what caused this disease. Some people thought it was caused by being in cold, damp air. Others thought it was a result of being very unhappy and depressed. More sailors got this disease than people who stayed on shore.

The French explorer Jacques Cartier was on a voyage from France in 1535. Many of the explorers became victims of scurvy. Twenty-five of the men had died; only three or four were not seriously ill. During the winter, the men were camped on the shores of Newfoundland. Cartier learned about a witch doctor who had cured scurvy. Cartier found that the "brew" the doctor gave the patients was a soup made out of boiled pine needles. The local Indians brewed up some of this pine needle soup for the men. Out of those who ate it, all were cured within six days. There was evidently something in the soup that would cure scurvy even though the men did not know what it was.

In 1747, another ship was sailing on a voyage when many of its men came down with scurvy. Aboard was a medical officer named James Lind. He had heard stories in the Mediterranean and West Indies about how the Indians had cured scurvy.

At this time the diets of the sailors were poor. Food preservation was very primitive. Their diets consisted mainly of salted meat, dried beans, wormy dried biscuits, slimy water and rancid cheese or butter. Lind felt that there might be something lacking in their diet that was causing the scurvy. He noticed that the officers did not get scurvy as often as the enlisted men. The officers were allowed to go ashore at ports and eat a better diet including some fruits and vegetables.

Lind planned an experiment. He selected twelve men who had scurvy. To their regular diets, he added a variety of dietary supplements. Two men received cider with their meals. Two others received vinegar. A medicine made of diluted sulfuric acid, alcohol and extract of ginger and cinnamon was given to the third pair. Two other patients received a potion of garlic, mustard and herbs. The fifth pair received a pint of sea water per day. The sixth couple received two oranges and one lemon for six days. Only the men who ate oranges and lemon showed any improvement.

Lind published the results of his experiment. No one believed such a simple diet could cure this dread disease. It was not until 1795-almost fifty years after the experiment-that people began to believe Lind. Lemons were added to the daily diet of the British sailors. In those days they were called limes and that is why British sailors were often referred to as limeys.

FRUITS AND VEGETABLES-----A STORY ABOUT VITAMIN C, continued

Today we know that the magic cure of eating limes and lemons worked because they contain vitamin C, which prevents scurvy.

Good sources are: citrus fruits, tomatoes, cantaloupes, strawberries, cabbage, turnips, potatoes, green peppers and broccoli.

SUMMARY QUESTIONS:

1. **WHAT DID JACQUES CARTIER FEED HIS EXPLORERS THAT CURED THEIR SCURVY?**
Pine Needle Soup
2. **WHAT VITAMIN IS FOUND ABUNDANTLY IN CITRUS FRUITS?**
Vitamin C
3. **WHO PERFORMED AN EXPERIMENT THAT PROVED THAT DIET COULD CURE SCURVY?**
James Lind

(Adapted from The Great Vitamin Mystery National Dairy Council--Marvin Martin)

COMPARISON CARDS--VITAMIN C

Hand out the food comparison cards to the students. Draw a continuum on the board. Place the word 'Vitamin C' in the center of the board. 0% should be written on one side of the board and 100% should be written on the other side. Have the students stand in front of the continuum, according to the percentage of Vitamin C their cards have. One at a time, narrow down the group to identify the foods containing over 100% of the RDA for vitamin C.

FOOD ON BOARD	VITAMIN C	CALORIES	FOOD	VITAMIN C	CALORIES
BAKED POTATO	* 50%	92	APPLE	16%	90
BANANA	* 30%	101	APPLESAUCE	5%	174
BROCCOLI	** 164%	23	BEETS	6%	31
CANTALOUPE	** 112%	41	CARROT STICKS	10%	21
CAULIFLOWER	** 114%	18	CELERY	17%	13
COLESLAW	* 44%	59	CHERRIES	22%	62
FRENCH FRIES	* 34%	175	CORN ON COB	17%	70
GRAPEFRUIT	** 112%	48	DATES	0%	197
LIMA BEANS	* 27%	106	DRIED APRICOTS	11%	99
ORANGE	** 164%	64	FRUIT SALAD	6%	96
ORANGE JUICE	** 212%	85	GRAPES	16%	107
PEAS	* 26%	11	GREEN BEANS	6%	11
PINEAPPLE	* 28%	66	LETTUCE	11%	9
RASPBERRIES	* 51%	47	PEACH	17%	38
SPINACH	* 67%	23	PEAR	20%	122
STRAWBERRIES	** 220%	55	POTATOES	24%	99
SWEET POTATO	* 61%	155	TOMATO	40%	15
TOMATO JUICE	* 73%	35	TOSSED SALAD	13%	10
WATERMELON	* 28%	42	VEGETABLE SOUP	0%	59
RAISINS	1%	118			

SUMMARY QUESTIONS:

- NAME THE THREE FOODS HIGHEST IN VITAMIN C.
Strawberries (220%), Orange juice (212%), Broccoli (164%), Oranges (164%)
- NAME THE FOOD HIGHEST IN CALORIES.
French Fries
- NAME THE FOOD LOWEST IN CALORIES.
Cauliflower

FRUIT BROWNING EXPERIMENT

DIRECTIONS: Perform the following experiment to show the effects of oxidation on cut fruit. Help students determine the best method of keeping fruit from turning brown.

In each of six custard dishes, place a small slice of apple. Use a spoon to dip them in the solution occasionally. (Granny Smith apples do not brown.) Label each dish with the following:

1. NOTHING ADDED
2. COVERED WITH A LID
3. COVERED WITH WATER
4. COVERED WITH SALT WATER (1-1/2 tsp. per 1 cup water)
5. COVERED WITH ASCORBIC ACID SOLUTION (1/4 tsp. dissolved in 1 cup water)
6. COVERED WITH LEMON JUICE

Leave the experiment overnight and then have students complete the **FRUIT BROWNING EXPERIMENT CHART**. Discuss the information below to help students understand the scientific principles of fruit browning.

Some fruits turn brown when they are exposed to air. This is a process called oxidation. These fruits contain chemicals called enzymes that combine with the oxygen in the air and discolor the fruits.

When you dip the fruits in a juice high in ascorbic acid mixed with water, you coat the fruits with the citrus juice. This keeps the oxygen and enzymes apart for a time. The acid in the citrus juice also slows down the enzymes. You can substitute an ascorbic acid mixture (the same product used in freezing many fruits).

Browning is not a reversible process. Fruit which is browned cannot be fully restored to its natural color by placing it in a solution.

Bananas deteriorate as they sit in a liquid solution. High acid fruits do not brown when exposed to air.

Some people place peeled fruit in water to prevent it from turning dark. This causes loss of water-soluble vitamins, minerals and natural sugars. To prevent browning, cover the fruit immediately after peeling or slicing with a juice containing Vitamin C, ascorbic acid solution, or salt water.

SUMMARY QUESTIONS:

1. WHAT IS THE SCIENTIFIC TERM FOR FRUIT TURNING BROWN?
Oxidation
2. NAME THE BEST TWO WAYS TO PREVENT FRUIT FROM BROWNING.
Cover with ascorbic acid solution or a citrus fruit juice.
3. WHAT ELEMENT CAUSES CERTAIN FRUITS TO TURN BROWN?
Oxygen

PREPARING VEGETABLES

DIRECTIONS: Use this information to stimulate a class discussion on the proper methods of preserving nutrients, taste and eye appeal when preparing vegetables.

1. Serve vegetables raw or cooked. Vegetables can be enhanced by adding herbs, sauces, spices and garnishes.
2. Vegetables almost always need some trimming to remove damaged leaves, bruised spots, infected portions and other inedible materials. Discarding any of the plant, however, reduces the nutrients originally present.
3. Each part of the plant differs in nutrient content. The blade is rich in many nutrients. The outer leaves are coarser and contain higher concentrations of vitamins and minerals than the more tender leaves and buds they protect.

4. The three R's of boiling vegetables are:
(W-C-S: Reduce: Water, Cooking time, Surface area)

****REDUCE THE AMOUNT OF WATER USED.**

The volume of water used is very important. Vitamin C and all the B Vitamins plus some of the mineral compounds are water soluble.

****REDUCE THE LENGTH OF COOKING TIME.**

The longer you cook a food, the more nutrients you destroy. Letting vegetables sit in water leeches out many of the nutrients. Avoid this by placing vegetables in boiling water and cooking them only until they are tender.

****REDUCE THE AMOUNT OF PLANT SURFACE EXPOSED.**

The greater the surface area that is exposed to the air, the greater the vitamin loss. Cut just the amount of vegetables needed and only as far in advance of cooking and eating as necessary.

SUMMARY QUESTIONS:

- 1-3. WHAT ARE THE THREE R'S OF COOKING VEGETABLES? (W-C-S)

Reduce the amount of water used. (W)

Reduce the length of cooking time. (C)

Reduce the amount of plant surface area exposed. (S)

EXPERIMENTAL VEGETABLE LAB

DIRECTIONS: Have an experimental vegetable lab using a frozen vegetable. You may want to use one that most students have not tasted. Divide the package of vegetables in half and cook one part in the microwave oven and boil the other half on the range in a saucepan. The vegetables will have more color if the pan in left pan is uncovered. (A covered and an uncovered pan could be used as part of the experiment.) Cook the vegetables until just tender. As a class, compare the time, convenience, appearance, flavor and texture of both cooking methods.

SUMMARY QUESTIONS:

1. WHICH COOKING METHOD HELD THE BRIGHT COLOR OF THE VEGETABLE BEST?
Microwave
2. WHICH COOKING METHOD PRODUCED A VEGETABLE WITH THE FRESHEST TASTING FLAVOR?
Microwave
3. WHICH COOKING METHOD PRODUCED A VEGETABLE WITH A TEXTURE CLOSEST TO FRESH?
Microwave

VEGETABLE AND FRUIT CUTTING TECHNIQUES

Demonstrate the following cooking preparation terms to the class. All foods should be washed before cutting them.

- PARE:** Rinse. With vegetable parer, remove a thin layer of skin. Remove any blemishes.
- CUBE:** Rinse and pare thinly or scrub. With a paring knife, cut into thin sections. Stack together. Cut into 1/2 inch squares.
- DICE:** Rinse and pare thinly or scrub. With paring knife, cut into slices. Cut across slits to dice. Dicing is next in size of the squares (about 1/4 inch).
- CHOP OR MINCE:** Rinse and pare thinly or scrub. With a French knife, press down with two or three fingers of one hand, near the point of the knife. With handle of knife in the other hand, cut up and down, in rocking motion, pivoting the knife. To mince with a paring knife, make a series of cuts lengthwise and then crosswise until product is in very small squares (about 1/8 inch).
- SNIP:** Place in measuring cup; snip with kitchen shears until desired degree of fineness is achieved.
- DIAGONAL CUT:** Rinse vegetables and scrub with brush if sandy. With paring knife, cut the vegetables on the diagonal, into thin slices.
- SHRED:** Wash. Cut off unwanted ends. Pare with vegetable parer, then grate onto a cutting board or wax paper.
- JULIENNE:** Wash. Cut off unwanted ends. Pare. Cut into very thin strips about three-four inches long.

SUMMARY QUESTIONS:

1. WHAT IS THE PROPER CUTTING TERM FOR REMOVING THE SKIN FROM A FRUIT?
Pare
2. WHICH THREE TECHNIQUES PRODUCE TINY LITTLE "SQUARES" OF VEGETABLES?
Cube (1/2 inch) Dice (1/4 inch) Chop (1/8 inch)
3. WHICH TECHNIQUE PRODUCES STRIPS ABOUT 3/4 INCH LONG?
Julienne

GARNISHES

Share the information with the student and demonstrate the basic garnishes listed below:

A garnish is anything used to improve the appearance or flavor of a meat or other main dish. It is an **EDIBLE DECORATION**.

Much of the delight in savouring good food comes in its appearance. Garnishes help add to the attractiveness of a dish. Garnishes that come in contact with food should be edible. Therefore, decorations such as flowers or ribbons are not appropriate on the plate.

Fresh fruits and vegetables are often used as garnishes, because of their generally mild flavor and rich variety of colors and textures.

Show students how to prepare garnishes using vegetables or fruits such as radishes, celery, cucumbers, tomatoes, etc. Use a variety of utensils for diversity of function. Here are some examples you may want to try.

RADISH ROSE--With a small sharp paring knife, cut off tail and all but one or two green leaves from each radish. Make 6 to 8 deep cuts into each radish from tip to stem end. Cut petals, making sure they are thick enough not to break easily. Place in ice water so petals will curl.

ACCORDION RADISH--Slice crosswise about 1/8 inch apart. Do not go all the way through the radish. Place in ice water to make it spread apart.

CARROT CURL--Pare a crisp, washed carrot with a vegetable parer. Using the parer, cut lengthwise, paper-thin strips from the vegetable. Be sure to hold the carrot in the palm of your left hand and pare away from you. Roll each strip around your finger tip. Fasten with a toothpick. Place in ice water. Remove picks before serving.

SUMMARY QUESTIONS:

1. **WHAT IS A GARNISH?**
An edible decoration--used to improve the appearance of a food
2. **WHY ARE FRESH FRUITS AND VEGETABLES OFTEN USED AS GARNISHES?**
They have a variety of colors and textures and mild flavors.
3. **NAME THREE CUTTING TOOLS THAT COULD BE USED TO PREPARE GARNISHES.**
Paring knife, vegetable parer, slicing knife

FRUITS AND VEGETABLES-----INDIVIDUALIZED ACTIVITY

NAME _____ CLASS _____

CHEC CAREER MODULES**DIRECTIONS:**

1. Complete one of the modules listed below:
CATERER
CONSUMER CONSULTANT
DIETITIAN
2. YOU MUST WEAR THE HEADPHONES.
3. Make sure you complete all the work that is required in the module.
4. Clean up the module completely.
5. Have the teacher initial the worksheet after checking that the module is clean.
6. Go to the testing area and take the test.
7. Staple the TEST ANSWER SHEET to the MODULE WORKSHEETS.
8. Correct the test and turn it in at the assigned area.
9. Staple the TEST ANSWER SHEET to the MODULE WORKSHEETS.

FRUITS AND VEGETABLES

CHEC MODULES--KEY

CHEC CAREER MODULES--KEY

Correct your own test. One point is possible for each correct answer. (10 points possible)

The teacher will correct the worksheet that goes with the module. (10 points possible.)

You will not receive any credit for this worksheet if the teacher does not check off the module clean up and initial your worksheet.

There are 20 points possible for each module completed.

CATERER

1. C
2. C
3. D
4. A
5. A
6. D
7. B
8. C
9. A
10. B

CONSUMER CONSULTANT

1. C
2. A
3. B
4. D
5. A
6. D
7. C
8. D
9. B
10. A

DIETITIAN

1. B
2. B
3. D
4. D
5. A
6. A
7. C
8. D
9. B
10. B

FRUIT BROWNING EXPERIMENT

Some fruits turn brown when they are exposed to air. They lose their appetizing appearance. This is a process called oxidation. These fruits contain chemicals called enzymes that combine with the oxygen in the air and discolor the fruits.

When you dip the fruits in a juice high in ascorbic acid mixed with water, you coat the fruits with the citrus juice and keep the oxygen and enzymes apart for a time. The acid in the citrus juice also slows down the enzymes. You can substitute an ascorbic acid mixture--the same product used in freezing many fruits.

Browning is not a reversible process. Fruit which is browned cannot be fully restored to its natural color by placing it in a solution.

To prevent browning, cover the fruit immediately after peeling or slicing with a juice containing Vitamin C, ascorbic acid solution or salt water.

Bananas deteriorate the longer they sit in a liquid solution. High acid fruits do not brown when exposed to air.

Some people place peeled fruit in water to prevent it from turning dark not realizing that this causes loss of water-soluble vitamins, minerals and natural sugars. There are better ways to prevent fruit from darkening when peeled. Dipping the cut fruit in an ascorbic acid solution or citrus juice will keep the fruit light and also add to its vitamin C content.

FRUITS AND VEGETABLES-----INDIVIDUALIZED ACTIVITY

NAME _____ CLASS _____

FRUIT BROWNING EXPERIMENT

One point is possible for each correct number. (20 points possible)

SAMPLE	NO BROWNING	SOME BROWNING	BROWNEED	WITHERED
1. Nothing on it				
2. Covered with a lid				
3. Covered with water				
4. Covered with salt				
5. Covered with ascorbic acid				
6. Covered with lemon juice				

7. When does fruit begin to brown?
8. What is another name for ascorbic acid?
9. Why does the peeling on a fruit keep it from browning?
10. Why does the apple in water turn more brown than the others?
11. What is lost when fruit is allowed to set in water?
12. What is the scientific term for fruit browning?
13. Does an orange brown when it is cut? Why or why not?
14. How can you change a browned fruit back to its natural appearance?
15. What kind of fruit deteriorates when left in a liquid solution?
16. Which apple browned the most?
17. Which apple browned the least?
- 18-20. Name three fruits that do not brown when cut.

FRUIT BROWNING EXPERIMENT--KEY

One point is possible for each correct number. (20 points possible)

- 1-6. For each line you completed on the chart, you will receive 1 point.
7. When does fruit begin to brown?
WHEN FIRST EXPOSED TO AIR
8. What is another name for ascorbic acid?
VITAMIN C
9. Why does the peeling on a fruit keep it from browning?
IT KEEPS IT AWAY FROM THE OXYGEN IN THE AIR
10. Why does the apple in water turn more brown than the others?
THE WATER PREVENTS THE APPLE'S EXPOSURE TO THE AIR
HOWEVER, THERE IS ALSO OXYGEN IN THE WATER
11. What is lost when fruit is allowed to set in water?
VITAMINS, MINERALS, NATURAL SUGARS
12. What is the scientific term for fruit browning?
OXIDATION
13. Does an orange brown when cut? Why or why not?
NO. AN ORANGE CONTAINS ASCORBIC ACID OR VITAMIN C
14. How can you change a browned fruit back to its natural appearance?
YOU CANNOT. FRUIT BROWNING IS NOT A REVERSIBLE PROCESS.
15. What kind of fruit deteriorates when left in a liquid solution?
BANANAS
16. Which apple browned the most?
UNCOVERED APPLE
17. Which apple browned the least?
APPLE IN ASCORBIC ACID SOLUTION
- 18-20. Name three fruits that do not brown when cut.
ANY FRUITS HIGH IN ASCORBIC ACID--ORANGES, LEMONS, LIMES

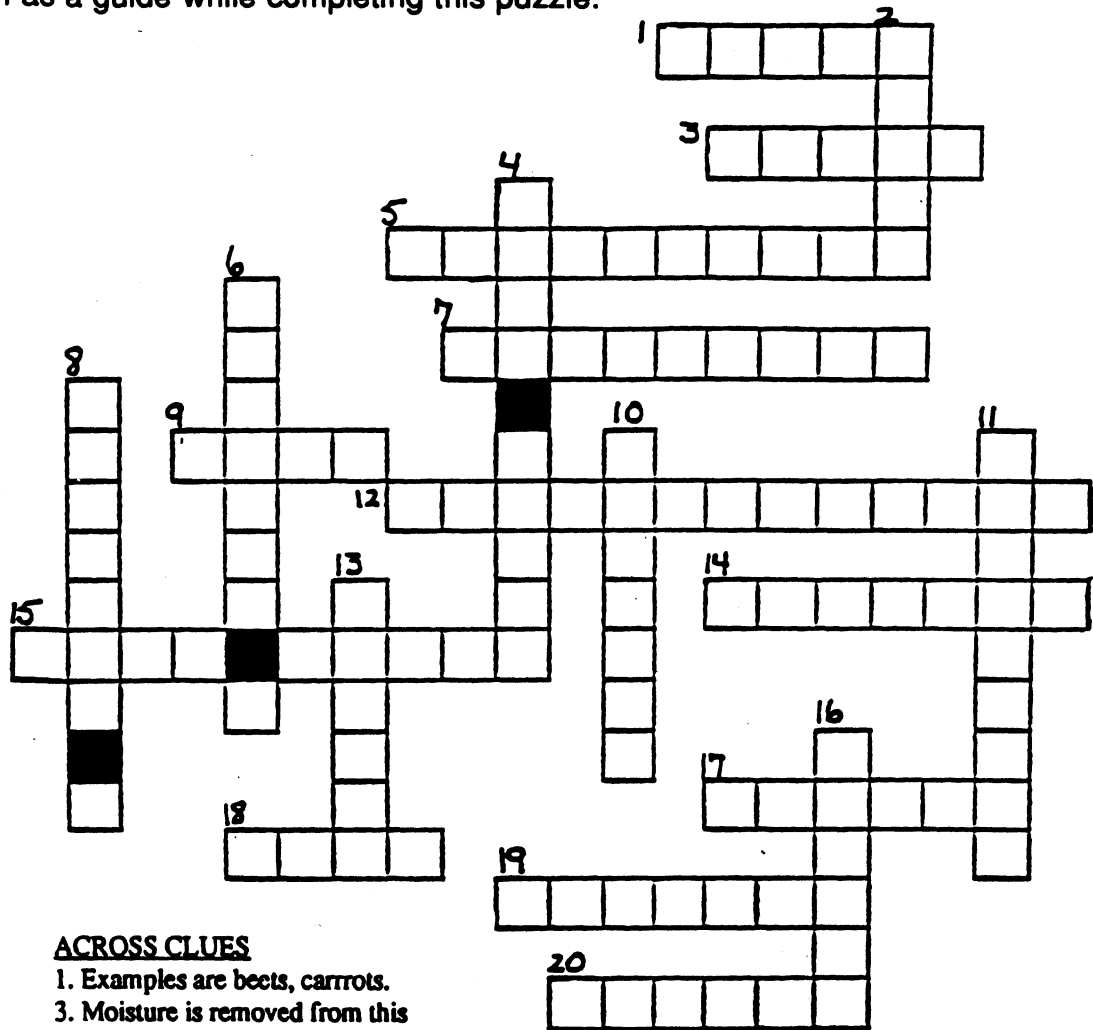
FRUITS AND VEGETABLES-----INDIVIDUALIZED ACTIVITY

NAME _____

CLASS _____

FRUITS AND VEGETABLES CROSSWORD PUZZLE

DIRECTIONS: Read your textbook chapters that explain about fruits and vegetables. Use them as a guide while completing this puzzle.

**ACROSS CLUES**

1. Examples are beets, carrots.
3. Moisture is removed from this form of fruit and veggies.
5. The edible part of plants.
7. Cooking with this retains the color, texture, nutrients.
9. Eat one of these delicious treats while on one.
12. Cellulose, starch and sugar.
14. Cross between a tangerine and a grapefruit.
15. This fruit is actually a pear from New Zealand.
17. When the moisture is removed from plums, they become this.
18. _____ produce before using.
19. Fresh fruits and veggies are ____.
20. Fruits filled with juice sacs and high in Vitamin C.

DOWN CLUES

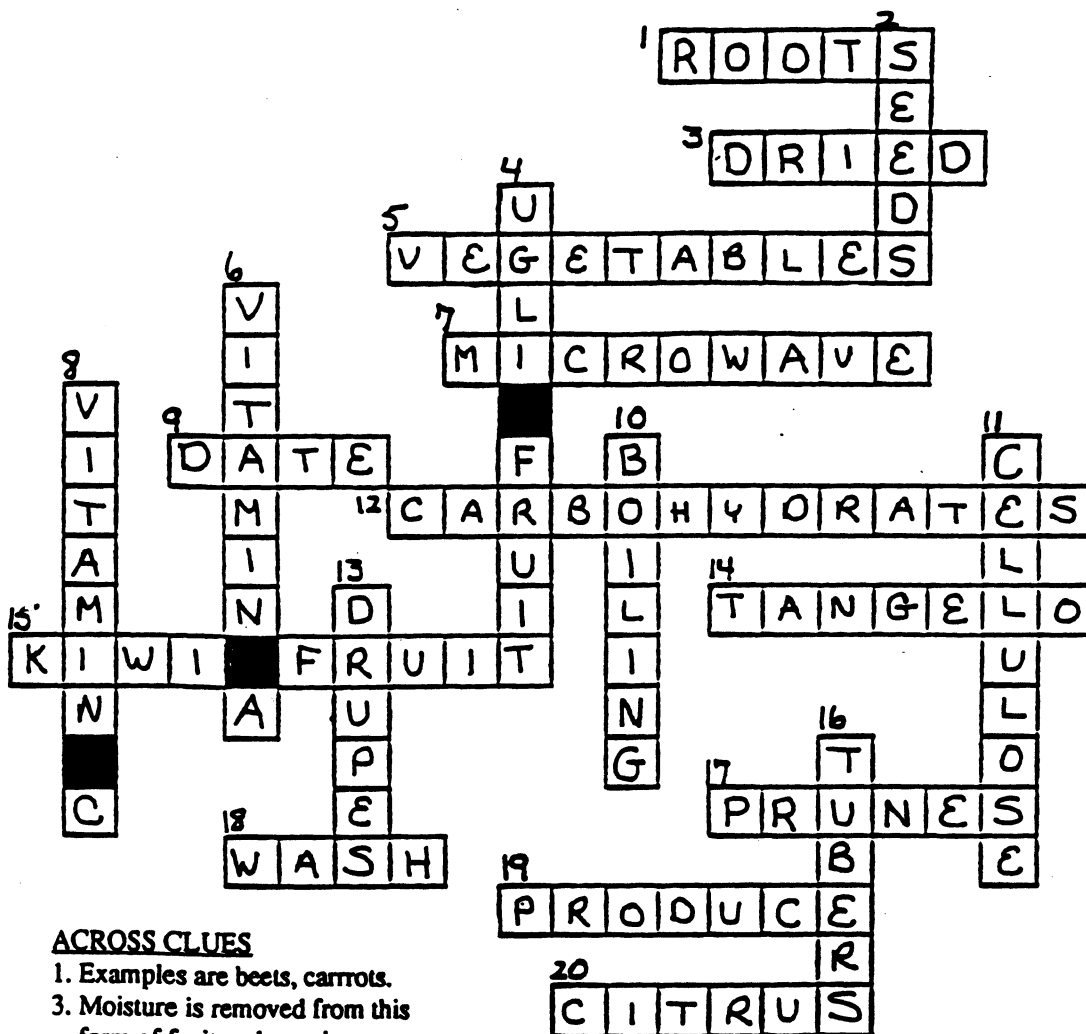
2. Examples are corn, beans, peas.
4. A citrus fruit that isn't pretty to look at.
6. Green, yellow, orange produce are good sources.
8. Green peppers, strawberries, tomatoes are examples.
10. Common vegetable cooking method.
11. Carbohydrate which forms structure of plants, but isn't digested.
13. This fruit contains a single seed surrounded by edible flesh.
16. An examples of these are potatoes.

FRUITS AND VEGETABLES

KEY

FRUITS AND VEGETABLES CROSSWORD KEY

ONE POINT FOR EACH CORRECT ANSWER. 20 POINTS POSSIBLE.

**ACROSS CLUES**

1. Examples are beets, carrots.
3. Moisture is removed from this form of fruit and veggies.
5. The edible part of plants.
7. Cooking with this retains the color, texture, nutrients.
9. Eat one of these delicious treats while on one.
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14. Cross between a tangerine and a grapefruit.
15. This fruit is actually a pear from New Zealand.
17. When the moisture is removed from plums, they become this.
18. _____ produce before using.
19. Fresh fruits and veggies are _____.
20. Fruits filled with juice sacs and high in Vitamin C.

DOWN CLUES

2. Examples are corn, beans, peas.
4. A citrus fruit that isn't pretty to look at.
6. Green, yellow, orange produce are good sources.
8. Green peppers, strawberries, tomatoes are examples.
10. Common vegetable cooking method.
11. Carbohydrate which forms structure of plants, but isn't digested.
13. This fruit contains a single seed surrounded by edible flesh.
16. An examples of these are potatoes.

FRUITS AND VEGETABLES-----INDIVIDUALIZED ACTIVITY

NAME _____ CLASS _____

FRUITS AND VEGETABLES DISCOVERY

DIRECTIONS: Use the food comparison cards to complete the information below.

FOOD	Serving (size)	Calories (Kcal)	% Vitamin A	% Vitamin C	% of 2000 cal.	% of daily fat budget
1. Orange Juice						
2. Banana						
3. Avacodo						
4. Cantaloupe						
5. Spinach						
6. Baked Potato						
7. French Fried Potatoes						
8. Strawberries						
9. Carrots						
10. Apple						

- 11-12. Which two are the best sources of Vitamin C per serving?
- 13-14. Which two are the best sources of Vitamin A per serving?
- 15-16. Which two have the highest percentage of daily fat per serving?
- 17-18. Which two have the lowest number of calories per serving?
- 19-20. Which two do you most like to eat?

FRUITS AND VEGETABLES

DAIRY BINGO--KEY

FRUITS AND VEGETABLES DISCOVERY--KEY

ONE POINT FOR EACH CORRECT NUMBER. 20 POINTS TOTAL POSSIBLE.

FOOD	Serving (size)	Calories (Kcal)	% Vitamin A	% Vitamin C	% of 2000 cal.	% of daily fat budget
1. Orange Juice	1/2 cup	56	2	82	3	0
2. Banana	1	105	2	17	5	1
3. Avacodo	1/2 medium	162	12	13	8	22
4. Cantaloupe	1/4 melon	47	86	93	2	0
5. Spinach	1/2 cup	6	38	13	0	0
6. Baked Potato	1 large	220	--	43	11	0
7. French Fried Potatoes	10 strips	158	--	8	8	12
8. Strawberries	1/2 cup	23	0	70	1	0
9. Carrots	1/2 cup	35	383	3	2	0
10. Apple	1 medium	81	1	13	4	0

- 11-12. Which two are the best sources of Vitamin C per serving?
CANTALOUPE, ORANGE JUICE
- 13-14. Which two are the best sources of Vitamin A per serving?
CARROTS, CANTALOUPE
- 15-16. Which two have the highest percentage of daily fat per serving?
AVOCADO, FRENCH FRIED POTATOES
- 17-18. Which two have the lowest number of calories per serving?
SPINACH, STRAWBERRIES
- 19-20. Which two do you most like to eat?
VARIOUS ANSWERS ARE POSSIBLE

IN THE KNOW

FRESH FRUITS AND VEGETABLES

SELECTION: Buy the highest quality produce available. Look for fruits that have healthy color and are free from blemishes; vegetables that are crisp and fresh looking. The prices of fresh fruits and vegetables are dependent upon the source of supply and the season. They are usually of top quality and highest in nutritive value immediately after harvesting.

Fresh produce that is wilted or has large bruises or decayed spots is not a bargain. Even after trimming, there may not be enough left to make it economical.

Buy fresh fruits and vegetables that are:

- Firm to the touch
- The right color
- Well shaped
- Heavy for their size
- Aromatic
- In good condition

Avoid fresh fruits and vegetables that are:

- Too soft or too hard
- Under-ripe
- Damaged, bruised, or decayed
- Discolored

STORAGE: Do not buy more fresh produce than you need. Buy only what you can use immediately or store for two to seven days at a cold temperature. Most fresh produce should be refrigerated to slow the ripening process. Always make sure produce is clean and dry before placing in the refrigerator. "One rotten apple **does** spoil the barrel!" Spoilage spreads. Separate soft, decaying fruits and vegetables from firm ones before storing.

Root vegetables are an exception to this rule. They will store for a long time if kept in a cool, dark ventilated place. The refrigerator will not work well because it is not ventilated.

Never soak fruits or vegetables in water. Wash them under running water.

CANNED FRUITS & VEGETABLES

SELECTION: Canned fruits and vegetables are harvested and packed at their peak stage of development. Much of the processing is done by automated equipment and they are handled very little by plant workers.

It is usually a good idea to stock up on advertised specials that you enjoy eating. Keep them in a moderately cool, dry place, but not at a freezing temperature. If a can begins to bulge or leak, throw it out. The little amount of money wasted is not worth the cost of an illness caused by food poisoning.

STORAGE: Canned vegetables can be stored at home for a long time, but they don't last indefinitely. They should be rotated periodically. Remember--first in, first out.

FROZEN FRUITS & VEGETABLES

SELECTION: Frozen vegetables and fruits are very comparable to fresh in appearance, flavor and food value. The packages should be kept solidly frozen from the time they leave the processing plant until they are prepared. Avoid buying frozen fruits and vegetables with stains on the package since this may indicate that the fruit was defrosted at some time during marketing. To insure quality, pick them up last on your trip through the grocery store and keep them together in one bag.

STORAGE: When you get frozen foods home, they should be the first to be put away first. They should be stored at a temperature of 0 degrees or less to maintain top quality. If you wish to use only a portion of a package, be sure to replace the remaining portion in the freezer before it has thawed.

READ LABELS

You can tell a lot about what you are purchasing by reading the food label. Most fruits and vegetables are graded. All grades have the same nutritive value. Grade A or Fancy means that the fruit or vegetable is top quality and is excellent in tenderness, flavor, shape and color. Use Grade A products where appearance and flavor are important. Grade A is the most expensive. Grade B means the food is not as young as Grade A, but has good flavor and color. Grade B fruits and vegetables have good flavor and are suitable for most uses. Grade C food is not as tender or attractive as grades A or B. Pieces may be broken or uneven. Use Grade C where color and texture are not of great importance, such as in puddings, jams and desserts.

According to federal law, the following information must be included on the front panel of a can or package: the common name, the form (whole, sliced, halves), variety or color, total contents (net weight). Foods canned in syrups or sugar pack must be listed near the name. Ingredients, any special type of treatment and the packer's name and place of business must also be listed. Optional information that may be given includes: quality or grade, size, maturity, cooking directions, recipes or serving ideas. However, labeling laws are changing. You may wish to ask your teacher if she/he has any more current information about labels.

FRUITS AND VEGETABLES-----INDIVIDUALIZED ACTIVITY

NAME _____ CLASS _____

IN THE KNOW

DIRECTIONS: Read the Student Guide "In The Know". Answer the questions below on your own paper.

FRESH FRUITS AND VEGETABLES

1. List three things to look for when purchasing fresh produce.
2. Name three enemies of fresh produce.
3. What two things determine the price of fresh produce?
4. What should you do to most kinds of produce to avoid over-ripening?
5. Produce should be free of what before refrigerating?
6. Most produce lasts about how long in the refrigerator?
7. How should root vegetables be stored?

CANNED FRUITS AND VEGETABLES

8. Canned vegetables are picked at what stage of development?
9. Where should canned foods be stored?
10. Cans that begin to _____ or _____ should be thrown away.
11. Name and describe the three grades of canned fruits and vegetables.
12. All grades have the same _____ quality.
13. Which grade of canned goods is the most expensive?
14. Which grade of canned goods is the highest quality?
15. Name two ways Grade C fruits or vegetables could be used?
16. List eight pieces of information that must be placed on the front of a canned fruit or vegetable.

FROZEN FRUITS AND VEGETABLES

17. What is of utmost importance in storing frozen vegetables?
18. At what temperature should frozen vegetables be stored?
19. What items should be purchased last in a grocery store?
20. What items should be put away first when storing groceries?

FRUITS AND VEGETABLES

KEY

IN THE KNOW--KEY

ONE POINT POSSIBLE FOR EACH CORRECT NUMBER. THE WHOLE ANSWER MUST BE CORRECT TO RECEIVE THE POINT. 20 POINTS TOTAL.

1. List three things to look for when purchasing fresh produce.
(ANY THREE)
 1. FIRM TO THE TOUCH
 2. RIGHT COLOR
 3. WELL SHAPED
 4. HEAVY FOR THEIR SIZE
 5. AROMATIC
 6. HIGH QUALITY
2. Name three enemies of fresh produce. (Any three).
 1. MOISTURE
 2. INSECTS
 3. INJURY
 4. EXCESSIVE DRYING
3. What two things determine the price of fresh produce?
SOURCE OF SUPPLY AND SEASON
4. What should you do to most produce to avoid over-ripening?
REFRIGERATE
5. Produce should be free of what before refrigerating?
DIRT AND MOISTURE
6. Most produce lasts about how long in the refrigerator?
2 TO 7 DAYS
7. How should root vegetables be stored?
IN A COOL, DARK, WELL-VENTILATED PLACE
8. Canned vegetables are picked at what stage of development?
PEAK
9. Where should canned foods be stored?
COOL, DRY PLACE--NOT AT A FREEZING TEMPERATURE
10. Cans that begin to BULGE or LEAK should be thrown away.

FRUITS AND VEGETABLES

IN THE KNOW-KEY, continued

11. Name and describe the three grades of canned fruits, vegetables.
 GRADE A OR FANCY--TOP QUALITY
 GRADE B--GOOD FLAVOR, NOT AS YOUNG AS GRADE A
 GRADE C--LEAST TENDER AND ATTRACTIVE, PIECES MAY BE BROKEN
12. All grades have the same NUTRITIVE quality.
13. Which grade of canned goods is the most expensive?
 GRADE A OR FANCY
14. Which grade of canned goods is the highest quality?
 GRADE A OR FANCY
15. Name two ways Grade C fruits or vegetables could be used?
 PUDDINGS, JAMS, DESSERTS
16. List eight pieces of information that must be placed on the front of a canned fruit or vegetable.

COMMON NAME	TOTAL CONTENTS
THE FORM	INGREDIENTS
VARIETY OR COLOR	ANY SPECIAL TREATMENT
SYRUP OR SUGAR PACK	PACKER'S NAME, ADDRESS
17. What is of utmost importance in storing frozen vegetables?
 PACKAGES SHOULD BE KEPT SOLIDLY FROZEN
18. At what temperature should frozen vegetables be stored?
 0 DEGREES F OR LOWER
19. What items should be purchased last in a grocery store?
 FROZEN FOODS
20. What items should be put away first when storing groceries?
 FROZEN FOODS

FRUITS AND VEGETABLES-----INDIVIDUALIZED ACTIVITY

NAME _____ CLASS _____

PRODUCE PUZZLE

DIRECTIONS: Follow the alphabet and fill in the names of the fruits and vegetables below. Use your textbook as a guide. Do this work on your own paper. Words must be spelled correctly in order to get credit for them.

1. A _____ Go ahead and "eat your heart out" over this vegetable.
2. B _____ Looks like tiny cabbages.
3. C _____ A vegetable to make sauerkraut.
4. D _____ An herb used to season pickles.
5. E _____ A hen may have laid this vegetable.
6. F _____ A pear-shaped fruit that rhymes with the cousin of a hog.
7. G _____ A general term for spinach or Swiss Chard.
8. H _____ A plant usually dried and used for seasoning.
9. J _____ A pulpy concentration of fruit to spread on bread.
10. K _____ A type of cabbage with a turnip-shaped stem.
11. L _____ A gourmet onion with a very mild flavor.
12. M _____ Hundreds of varieties. Some are poisonous.
13. O _____ This vegetable is nothing to cry about.
14. P _____ Comes in Christmas colors.
15. R _____ Like a huge turnip, this vegetable grows underground.
16. S _____ This vegetable comes in all sizes and shapes. It is also the name of a ball game.
17. T _____ I am loaded with vitamin C, and was once called a "love apple".
18. W _____ Crunchy Oriental vegetable.
19. Y _____ Often eaten at Thanksgiving.
20. Z _____ Lock your car in the fall so neighbors will not pawn this vegetable off on you.

FRUITS AND VEGETABLES

KEY

PRODUCE PUZZLE--KEY

One point possible for each correct answer. Words must be spelled correctly.

1. ARTICHOKE Go ahead and "eat your heart out" over this vegetable.
2. BRUSSELS
SPROUTS Looks like tiny cabbages.
3. CABBAGE A vegetable to make sauerkraut.
4. DILL An herb used to season pickles.
5. EGGPLANT A hen may have laid this vegetable.
6. FIG A pear-shaped fruit that rhymes with the cousin of a hog.
7. GREENS A general term for spinach or Swiss Chard.
8. HERB A plant usually dried and used for seasoning.
9. JAM A pulpy concoction used to spread on bread.
10. KOHLRABI A type of cabbage with a turnip-shaped stem.
11. LEEK A gourmet onion with a very mild flavor.
12. MUSHROOM Hundreds of varieties. Some are poisonous.
13. ONION This vegetable is nothing to cry about.
14. PEPPER Comes in Christmas colors.
15. RUTABAGA Like a huge turnip, this grows underground.
16. SQUASH This vegetable comes in all sizes and shapes. It is also the name of a ball game.
17. TOMATO I am loaded with vitamin C, and was once called a "love apple".
18. WATER
CHESTNUT Crunchy Oriental vegetable.
19. YAM Often eaten at Thanksgiving.
20. ZUCCHINI Lock your car in the fall so neighbors will not pawn this vegetable off on you.

FRUITS AND VEGETABLES-----INDIVIDUALIZED ACTIVITY

NAME _____ CLASS _____

SCRAMBLE

DIRECTIONS: Unscramble the fruits and vegetables listed below and match them with their correct definitions. Use the World of Food as a guide. **ANSWERS MUST BE SPELLED CORRECTLY TO RECEIVE CREDIT.**

- | | | |
|-------|-----|---|
| _____ | 1. | At one time only royalty was allowed to eat this salad green. |
| _____ | 2. | You can eat this root vegetable's leaves. |
| _____ | 3. | A melon low in calories, high in nutrition. |
| _____ | 4. | A popular Thanksgiving vegetable. |
| _____ | 5. | Pick this fruit when it is green and it will ripen. |
| _____ | 6. | The vegetable with a heart. |
| _____ | 7. | A green vegetable, rich in vitamin C. |
| _____ | 8. | A fruit with black seeds that tastes like grapes. |
| _____ | 9. | Popeye's favorite vegetable, loaded with iron. |
| _____ | 10. | A popular Southern vegetable found in chowders. |
| _____ | 11. | Unlike its name suggests, it does not grow in coniferous trees. |
| _____ | 12. | When picking it, you usually get stuck by thorns. |
| _____ | 13. | You can easily spear this green vegetable. |
| _____ | 14. | Do not eat this little green vegetable with a knife. |
| _____ | 15. | Did a chicken lay this vegetable? |
| _____ | 16. | You might find these vegetable greens in a zoo. |
| _____ | 17. | Eat it fried, mashed, scalloped or baked. |
| _____ | 18. | This vegetable is really the pits. |
| _____ | 19. | You may want a complexion like this fruit and a milk product. |
| _____ | 20. | This vegetable, once purple, is loaded with vitamin A. |

TULCEET
RAKO
NAPPEELIP
BERYSPARR
PIRNU

SAPE
TIFURWIK
KIPPMUN
COLICORB
RATCOR

TOCHIARKE
NIPCHAS
RAPUSSAGA
PANCALOUTE
SIONDELAND

DOAVACA
SEEPACH
TATPOO
SAANBAN
PLEGGTAN

FRUITS AND VEGETABLES

KEY

SCRAMBLE--KEY

ONE POINT FOR EACH CORRECT ANSWER. TWENTY POINTS TOTAL POSSIBLE.

- | | |
|-------------------|---|
| <u>LETTUCE</u> | 1. At one time only royalty was allowed to eat this salad green. |
| <u>TURNIP</u> | 2. You can eat this root vegetable's leaves. |
| <u>CANTALOUPE</u> | 3. A melon low in calories, high in nutrition. |
| <u>PUMPKIN</u> | 4. A popular Thanksgiving vegetable. |
| <u>BANANA</u> | 5. Pick this fruit when it is green and it will ripen. |
| <u>ARTICHOKE</u> | 6. The vegetable with a heart. |
| <u>BROCCOLI</u> | 7. A green vegetable, rich in vitamin C. |
| <u>KIWIFRUIT</u> | 8. A fruit with black seeds that tastes like grapes. |
| <u>SPINACH</u> | 9. Popeye's favorite vegetable, loaded with iron. |
| <u>OKRA</u> | 10. A popular Southern vegetable found in chowders. |
| <u>PINEAPPLE</u> | 11. Unlike its name suggests, it does not grow in coniferous trees. |
| <u>RASPBERRY</u> | 12. When picking it, you usually get stuck by thorns. |
| <u>ASPARAGUS</u> | 13. You can easily spear this green vegetable. |
| <u>PEAS</u> | 14. Don't eat this little green vegetable with a knife. |
| <u>EGGPLANT</u> | 15. Did a chicken lay this vegetable? |
| <u>DANDELIONS</u> | 16. You might find these vegetable greens in a zoo. |
| <u>POTATO</u> | 17. Eat it fried, mashed, scalloped or baked. |
| <u>AVOCADO</u> | 18. This vegetable is really the pits. |
| <u>PEACHES</u> | 19. You may want a complexion like this fruit and a milk product. |
| <u>CARROT</u> | 20. This vegetable, once purple, is loaded with Vitamin A. |

FRUITS AND VEGETABLES-----INDIVIDUALIZED ACTIVITY

NAME _____ CLASS _____

SHOPPING FOR FRUITS AND VEGETABLES

VARIETY	Name on label	Price per ounce	Three main ingredients
***GREEN BEANS			
Name brand			
Store brand			
Local variety			
***GREEN BEANS			
Name brand			
Store brand			
Local variety			
***GREEN BEANS			
Name brand			
Store brand			
Local variety			
***GREEN BEANS			
Name brand			
Store brand			
Local variety			

Answer the following questions on your own paper, or on the back of this sheet.

9. Which green beans are the most expensive per ounce?
10. Which green beans are the least expensive per ounce?
11. Consider the ingredients plus price. Which green beans are the best buy?
12. Which corn is the most expensive per ounce?
13. Which corn is the least expensive per ounce?
14. Consider the ingredients plus price. Which corn is the best buy?
15. Which fruit cocktail is the most expensive per ounce?
16. Which fruit cocktail is the least expensive per ounce?
17. Consider the ingredients plus price. Which fruit cocktail is the best buy?
18. Which pineapple is the most expensive per ounce?
19. Which pineapple is the least expensive per ounce?
20. Considering major ingredients plus price which is the best buy?

FRUITS AND VEGETABLES

KEY

SHOPPING FOR FRUITS AND VEGETABLES--KEY

Your teacher will correct this sheet for you, based upon the products used in the classroom.

FRUITS AND VEGETABLES-----**KEY**

SORTING OUT YOUR VEGETABLES

FOOD	CALORIES	NUTRIENT	FOOD	CALORIES	NUTRIENT
1. Asparagus	12	Vit. C	11. Carrots	21	Vit. A
2. Corn	69	Vit. A	12. Peas	54	Vit. C
3. Green beans	11	Vit. A	13. Sweet potato	155	Vit. A
4. Broccoli	23	Vit. C	14. Cauliflower	18	Vit. C
5. Tomato	15	Vit. C	15. Lettuce	9	Vit. C
6. Lima beans	106	Vit. C	16. Corn on cob	70	Vit. C
7. Baked Potato	92	Vit. C	17. Mashed potato	99	Vit. C
8. Beets	31	Vit. C	18. French fries	175	Vit. C
9. Celery	13	Vit. C	19. Zucchini	11	Vit. C
10. Cabbage	59	Vit. C	20. Potato chips	227	Vit. C

FRUITS	FLOWERS	SEEDS	STEMS
Tomato	Cauliflower	Peas	Celery
Zucchini	Broccoli	Lima beans	Asparagus
		Corn on cob	
		Green beans	
		Corn	

LEAVES	TUBERS	ROOTS	BULBS
Cabbage	Mashed potato	Carrots	
Lettuce	French fries	Beets	
	Baked potato	Sweet potatoes	
	Potato chips		

FRUITS AND VEGETABLES-----INDIVIDUALIZED ACTIVITY

NAME _____ CLASS _____

LEARNING ABOUT FRUITS AND VEGETABLES!

DIRECTIONS: Fill in the spaces below. Each column begins with the letter above it. Work with a partner. The first team that finishes wins!

1. Fresh vegetables are low in _____ but high in vitamins.
2. Vegetables are great for adding variety in color, flavor and _____ to meals.
3. A vegetable is defined as an edible _____.
4. The word _____ comes from the Latin word "fructus" meaning enjoyment.
5. A fruit is defined as the edible flesh around the _____ of the plant after it has flowered.
6. Fresh vegetables can add bright _____ to meals.
7. Produce picked and eaten before maturing do not _____ nearly as good as those that are fully ripe.
8. Always handle fresh produce carefully. It bruises easily and the store may raise the _____ to cover its losses.
9. _____ vegetables have been partially cooked and need only a few minutes of cooking time.
10. In _____ refers to fresh fruits and vegetables that are ripe and found more abundantly at that time.
11. _____ fruits are a great source of Vitamin C.
12. Canned vegetables and fruits should be stored at a low _____ to prolong shelf life.
13. Fresh fruit and vegetables are often referred to as _____.
14. Always handle _____ fruit carefully.
15. As most fruits ripen, the _____ turns to sugar which makes them sweeter.
16. Plants don't die after being picked. They take in oxygen and give off _____.
17. Always ripen _____ before refrigerating or they won't develop their full flavor.
18. Vegetables can be _____ in many different ways.
19. _____ are juicy because of their water content.
20. Most of the nutrients in produce are found just under the _____.

C	T	P	F	S
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

FRUITS AND VEGETABLES

DAIRY BINGO--KEY

LEARNING ABOUT FRUITS AND VEGETABLES--KEY!

ONE POINT POSSIBLE FOR EACH CORRECT ANSWER. TWENTY POINTS POSSIBLE.

1. Fresh vegetables are low in CALORIES but high in vitamins.
2. Vegetables are great for adding variety in color, flavor and TEXTURE to meals.
3. A vegetable is defined as an edible PLANT.
4. The word FRUIT comes from the Latin word "fructus" meaning enjoyment.
5. A fruit is defined as the edible flesh around the SEED of the plant after it has flowered.
6. Fresh vegetables can add bright COLORS to meals.
7. Produce picked and eaten before maturing do not TASTE nearly as good as those that are fully ripe.
8. Always handle fresh produce carefully. It bruises easily and the store may raise the PRICE to cover its losses.
9. FROZEN vegetables have been partially cooked and need only a few minutes of cooking time.
10. In SEASON refers to fresh fruits and vegetables that are ripe and found more abundantly at that time.
11. CITRUS fruits are a great source of Vitamin C.
12. Canned vegetables and fruits should be stored at a low TEMPERATURES to prolong shelf life.
13. Fresh fruit and vegetables are often referred to as PRODUCE .
14. Always handle FRESH fruit carefully.
15. As most fruits ripen, the STARCH turns to sugar which makes them sweeter.
16. Plants don't die after being picked. They take in oxygen and give off CARBON DIOXIDE .
17. Always ripen TOMATOES before refrigerating or they won't develop their full flavor.
18. Vegetables can be PREPARED in many different ways.
19. FRUITS are juicy because of their water content.
20. Most of the nutrients in produce are found just under the SKIN .

WHAT'S UP DOC?--HOW TO COOK VEGETABLES

Cooking makes vegetables more edible by softening the tissues (cellulose) and sometimes even improving their taste and digestibility.

Vegetables should be cooked at a low boil with the lid on the pan to prevent excessive loss of water. You may add about 1 tsp. salt and 1 tsp. sugar to bring out the natural flavors of the vegetables when boiling them.

Most vegetables intensify in color after 5-10 minutes of cooking. After this time, the color green tends to become duller. This is because it is a less stable color.

FOR THE PERFECT VEGETABLE

1. Cook for the shortest time possible. (Heat destroys vitamins.)
2. Use as little water as possible. (Soaking destroys vitamins.)
3. Pare or cut just before cooking. (Air and light can also destroy vitamins.)
4. Prepare the largest pieces possible. (To expose less surface area of the vegetables to the air.)
5. Serve or save the cooking liquid and use in soups, gravies, sauces, stews.

CHARACTERISTICS OF A WELL-COOKED VEGETABLE

1. Tender-crisp texture.
2. Retains natural vivid color.
3. Retains characteristic flavor.
4. Retains maximum amount of nutrients.

METHODS OF COOKING VEGETABLES

There are many methods for cooking vegetables. They can be boiled, steamed, pan fried, pressure cooked, stir fried, baked, broiled, microwaved, deep fat fried, braised.

BOILING CANNED VEGETABLES

1. Drain vegetable liquid into a saucepan.
2. Gently boil liquid until half the original volume remains.
3. Add vegetables to liquid.
4. Cover and heat to serving temperature.
5. Add butter and season to taste OR--
6. Drain liquid for future use, then add sauce.

BOILING FROZEN VEGETABLES

These vegetables are partially cooked so they take less time to prepare than fresh vegetables. Do not thaw before cooking. Always read package directions for specific cooking details.

BOILING FRESH OR FROZEN VEGETABLES

1. Bring small amount of water to a boil. (Add 1 tsp. salt and 1 tsp. sugar for added flavor.)
2. Add vegetable.
3. Quickly bring water back to boiling point.
4. Lower heat and cook gently until just tender.
5. Drain. Save or serve cooking liquid.

MICROWAVING VEGETABLES

Vegetables cook to perfection in a microwave oven. They have a tender-crisp texture, a bright color and fresh flavor.

1. Use a microwave bowl with a cover.
2. Add a very small amount of water to the vegetables. (about 2 tablespoons.) Cover with a lid or plastic wrap.
3. Cook on high setting about four minutes.
4. Stir. Continue cooking until vegetables are fork tender. (It takes longer to cook fresh vegetables.)
5. Let vegetables rest two minutes before serving them.

STIR-FRYING VEGETABLES

1. Assemble all ingredients. Cut each type of food into small uniform pieces. Line up the food in the order it will be used.
2. Heat the wok over high heat. When a drop of water sizzles in the wok, add the cooking oil.
3. Tilt the wok to coat it evenly with hot oil.
4. Add ingredients to the wok as the recipe directs. Toss with a curved spatula or chop sticks. Work quickly.
5. Keep stirring the mixture to ensure even cooking and prevent scorching.
6. Vegetables should remain crisp.

BAKING VEGETABLES

This is accomplished by cooking in an oven with dry heat.

1. Bake the entire vegetable--or pare, slice or dice it in a covered casserole.
2. Use a moderately hot oven. (350 degrees)
3. Cook until just fork tender.

BRAISING VEGETABLES

Braise vegetables by cooking them in the steam from a vegetable's own juice in a tightly covered skillet.

1. Heat 2 Tbsp. butter or margarine in heavy skillet.
2. Add shredded or sliced vegetables and stir to coat with fat.
3. Cover with a tight-fitting lid. Reduce heat to low.
4. Cook until just tender. Stir occasionally.

PAN FRYING OR SAUTÉING

Pan fry vegetables by cooking them in fat in an uncovered skillet.

1. Heat a small amount of fat in a heavy skillet.
2. Cook sliced vegetables uncovered on both sides until just tender.

VEGETABLE CUTTING TECHNIQUES

PARE: Rinse. With vegetable parer, remove a thin layer of skin. Remove any blemishes.

CUBE: Rinse and pare thinly or scrub. With a paring knife, cut into thin sections. Stack together. Cubing is largest of the cutting techniques (about 1/2 inch).

DICE: Rinse and pare thinly or scrub. With paring knife, cut into slices. Cut across slits to dice. Dicing is next in size of the cutting techniques (about 1/4 inch).

CHOP OR MINCE: Rinse and pare thinly or scrub. With a French knife, press down with two or three fingers of one hand, near point. With handle of knife in other hand, cut up and down, in rocking motion, pivoting knife. To mince with a paring knife, make a series of cuts lengthwise and then crosswise until product is in very small squares (about 1/8 inch).

SNIP: For parsley, rinse, shake dry. Place in measuring cup; snip with kitchen shears until of desired degree of fineness.

DIAGONAL CUT: Rinse vegetables and scrub with brush if sandy. With paring knife, cut them on the diagonal, into thin slices.

SHRED: Wash. Cut off unwanted ends. Pare with vegetable parer, grating onto board or wax paper.

JULIENNE: Wash. Cut off unwanted ends. Pare. Cut into very thin strips about three-four inches long.

FRUITS AND VEGETABLES-----INDIVIDUALIZED ACTIVITY

NAME _____ CLASS _____

WHAT'S UP DOC?

DIRECTIONS: Read the student guide--"WHAT'S UP DOC?" Answer the following questions on your own paper.

1. Name two reasons why vegetables are cooked.
2. Which kind of preparation requires the shortest cooking time before serving? (fresh, frozen, canned)
3. Name the five types of cooked vegetables that you most prefer.
4. What should be done to the liquid when heating canned vegetables before adding the vegetable?
5. What has already been done to frozen and canned vegetables before they are sold?
6. What oven temperature is used for baking vegetables?
7. What needs to be done when stir-frying vegetables before you heat up the wok?
8. What is the definition for braising?
9. Which contains the largest pieces--A vegetable that has been cubed, diced or chopped?
10. How long do microwaved vegetables need to rest before being served?
11. What two ingredients can be added to frozen or fresh vegetables while cooking to add flavor?
12. How do you pan fry a vegetable?
13. Explain how to prepare vegetables Julienne style.
14. Explain how to diagonally cut a vegetable?
15. List four characteristics of a well cooked vegetable.
16. List three characteristics of vegetables prepared in a microwave.
17. What should the texture of stir-fried vegetables be?
18. Name three ways to use the vegetable's cooking water.
19. Which color of vegetable is the least stable during cooking?
20. List the five basic steps in preparing a perfectly cooked vegetable.

FRUITS AND VEGETABLES

KEY

WHAT'S UP DOC?--KEY

ONE POINT POSSIBLE FOR EACH CORRECT NUMBER. 20 POINTS TOTAL.

1. Name two reasons vegetables are cooked. (ANY TWO)
SOFTENS THE TISSUES, IMPROVES DIGESTIBILITY, IMPROVES THEIR TASTE
2. Which kind of preparation requires the shortest cooking time before serving?
CANNED
3. Name the five types of cooking vegetables that you prefer most.
VARIETY OF ANSWERS POSSIBLE
4. What should be done to the liquid when heating canned vegetables?
BOIL DOWN TO HALF THE ORIGINAL AMOUNT
5. What has been done to frozen and canned vegetables before they are sold?
THEY ARE PARTIALLY COOKED
6. What oven temperature is used for baking vegetables?
MODERATE--350 DEGREES
7. What needs to be done when stir-frying vegetables before heating the wok?
CHOPPED, PLACED IN ORDER OF COOKING
8. What is the definition for braising?
TO COOK IN STEAM FROM A VEGETABLE'S OWN JUICE IN A SKILLET
9. Which contains the largest pieces--foods that are cubed, diced, or chopped.
CUBED
10. How long should you wait after microwaving vegetables before serving them?
TWO MINUTES
11. What two ingredients can be added to frozen or fresh vegetables while cooking to add flavor?
SALT, SUGAR
12. How do you pan-fry a vegetable?
COOK IN FAT IN AN UNCOVERED SKILLET
13. Explain how to prepare vegetables "Julienne" style.
WASH AND CUT OFF UNWANTED ENDS. PARE. CUT INTO 3/4" STRIPS.
14. Explain how to "diagonally cut" vegetables.
RINSE AND SCRUB. CUT VEGETABLES ON THE DIAGONAL--THIN SLICES.
15. List the four characteristics of a well-cooked vegetable.
 1. TENDER-CRISP TEXTURE
 2. RETAINS NATURAL COLOR
 3. RETAINS FLAVOR
 4. RETAINS MAXIMUM NUTRIENTS
16. List three characteristics of vegetables prepared in a microwave.
TENDER-CRISP TEXTURE, BRIGHT COLOR, FRESH FLAVOR
17. What should the texture of stir-fried vegetables be?
CRISP
18. Name three ways to use the vegetable's cooking water.
SOUPS, GRAVIES, SAUCES, STEWS
19. Which color of vegetable is the least stable during cooking?
GREEN
20. List the five basic steps in preparing a perfectly cooked vegetable.
 1. COOK SHORTEST TIME POSSIBLE
 2. USE AS LITTLE WATER AS POSSIBLE
 3. PARE JUST BEFORE COOKING
 4. PREPARE LARGE PIECES
 5. SAVE OR SERVE THE LIQUID

REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW

VEGETABLE BOWL INSTRUCTIONS

Give students the Vegetable Bowl worksheet. Have them answer the questions, then play the following game.

DIRECTIONS: Divide the class into teams. Appoint a captain for each team. The team captain may choose a 5 or 10 point question. Have students raise their hands if they think they know the correct answer.

Each team may have two chances to answer the question correctly. If they answer incorrectly, the opposing team has a chance to answer correctly for double the points. Add up the scores. The high scoring team wins.

REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW--REVIEW

NAME _____ CLASS _____

VEGETABLE BOWL

Answer the following questions to prepare for the review and test on this unit. You may write the answers on your own paper or on the back of this sheet.

1. Fresh produce are high in vitamins and minerals, but low in what?
2. What category of fruits is a good source of Vitamin C?
3. Most of the nutrients in fruits and vegetables are found:
A. In the seed B. In the skin C. Just under the skin
4. Where should root vegetables be stored?
5. What are two signs of spoilage in canned goods?
6. What is the top grade of canned goods. Describe its contents.
7. What grade of canned goods has the greatest nutritive quality?
8. Frozen vegetables are very comparable to what other form?
9. The freezing department should be kept at what temperature?
10. What part of the plant does a tomato and a cucumber come from?
11. What part of the plant does cauliflower and broccoli come from?
12. What part of the plant does celery and asparagus come from?
13. A potato is classified as what kind of vegetable?
14. Is Vitamin A a fat soluble or water soluble vitamin?
15. What color of fruits and vegetables are usually high in Vitamin A?
16. What is another name for Vitamin C?
17. What two things can be added to fruit to prevent browning?
18. Do vegetables retain more color when cooked covered or uncovered?
19. Which cutting technique produces the largest cubes:
A. Cube B. Dice C. Chop
20. What is the proper term for removing the skin from a fruit?
21. What can you add to water to prevent fruit browning?
22. What can you do when chopping an onion to prevent crying?
23. Which form of vegetable requires the shortest cooking time?
24. Name three ways to use the vegetable's cooking water.
25. What is the definition of a vegetable?

26. As they ripen, the starch in fresh fruits turns to what kind of carbohydrate?
27. Name three enemies of fresh fruits and vegetables.
28. The price of fresh produce are dependent upon what two factors?
29. Name three guidelines for purchasing fresh produce.
30. Name three conditions to avoid when purchasing fresh produce.
31. Name three items that must be included on a food label front.
32. What is the pigment in yellow fruits which changes to Vitamin A?
33. Choose A or B: Vitamin A--
 - A. Makes skin smooth, promotes growth, prevents night blindness
 - B. Helps fingernails grow, clots blood, helps digest food
34. What was the first vitamin ever discovered?
35. What type of oils are high in vitamin A?
36. Name three foods which have more than 100% RDA for Vitamin C.
37. What is the most unstable of all vitamins?
38. How does Vitamin C help your body?
39. What disease is caused by lack of Vitamin C?
40. What man did an experiment that led to the discovery of Vitamin C?
141. What is the scientific name for fruit browning?
42. What is the definition of a garnish?
43. What cutting technique produces strips about 3/4 inch long?
44. What is the term for cooking a vegetable in its own juice in an oiled, tightly-covered skillet?
45. What is the rule for storing canned goods?
46. Name the four ways fruits and vegetables can be purchased?
47. What does the word enjoyment mean in Latin?
- 48-50. Name the three R's of boiling vegetables.

REVIEW--REVIEW--REVIEW--REVIEW

KEY

VEGETABLE BOWL KEY**FIVE POINT QUESTIONS**

1. Fresh produce are high in vitamins and minerals, but low in what?
CALORIES
2. What category of fruits is a good source of Vitamin C?
CITRUS
3. Most of the nutrients in fruits and vegetables are found:
A. In the seed B. In the skin C. JUST UNDER THE SKIN
4. Where should root vegetables be stored?
IN A COOL, DARK, DRY PLACE
5. What are two signs of spoilage in canned goods?
LEAKING OR BULGING
6. What is the top grade of canned goods. Describe its contents.
GRADE A OR FANCY, TOP QUALITY IN TENDERNESS, FLAVOR, SHAPE
7. What grade of canned goods has the greatest nutritive quality?
ALL GRADES HAVE THE SAME NUTRITIVE QUALITY
8. Frozen vegetables are very comparable to what other form?
FRESH
9. The freezing department should be kept at what temperature?
0 DEGREES FAHRENHEIT OR LESS
10. What part of the plant does a tomato and a cucumber come from?
FRUIT
11. What part of the plant does cauliflower and broccoli come from?
FLOWER
12. What part of the plant does celery and asparagus come from?
STEM
13. A potato is classified as what kind of vegetable?
A TUBER
14. Is Vitamin A a fat soluble or water soluble vitamin?
FAT SOLUBLE
15. What color of fruits and vegetables are usually high in Vitamin A?
YELLOW AND ORANGE
16. What is another name for Vitamin C?
ASCORBIC ACID
17. What two things can be added to fruit to prevent browning?
ASCORBIC ACID, CITRUS FRUIT JUICE
18. Do vegetables retain more color when cooked covered or uncovered?
UNCOVERED
19. Which cutting technique produces the largest cubes:
A. CUBE B. Dice C. Chop

REVIEW--REVIEW--REVIEW--REVIEW

VEGETABLE BOWL--KEY, continued

20. What is the proper term for removing the skin from a fruit?
PARE
21. What can you add to water to prevent fruit browning?
ASCORBIC ACID OR VITAMIN C PRODUCT
22. What can you do when chopping an onion to prevent crying?
CUT OFF THE ROOT END LAST, PEEL UNDER COLD, RUNNING WATER
23. Which form of vegetable requires the shortest cooking time?
FROZEN
24. Name three ways to use the vegetable's cooking water.
SOUPS, GRAVIES, SAUCES, STEWS
25. What is the definition of a vegetable?
AN EDIBLE PLANT

TEN POINT QUESTIONS

26. As they ripen, the starch in fresh fruits turns to what kind of carbohydrate?
SUGAR
27. Name three enemies of fresh fruits and vegetables.
INJURY, INVADING MICRO-ORGANISMS, WATER, EXCESSIVE DRYING
28. The prices of fresh produce are dependent upon what two factors?
SOURCE OF SUPPLY AND THE SEASON OF THE YEAR
29. Name three guidelines for purchasing fresh produce.
FIRM TO THE TOUCH, THE RIGHT COLOR, WELL-SHAPED, HEAVY FOR THEIR SIZE, AROMATIC (SMELLS GOOD), IN GOOD CONDITION
30. Name three conditions to avoid when purchasing fresh produce.
TOO SOFT OR TOO HARD, UNDER-RIPE, DAMAGED, DISCOLORED
31. Name three items that must be included on a food label front.
COMMON NAME, FORM, VARIETY, SUGAR PACK, NET WEIGHT
32. What is the pigment in yellow fruits which changes to Vitamin A?
CAROTENE
33. Choose A or B: Vitamin A--
A. MAKES SKIN SMOOTH, PROMOTES GROWTH, PREVENTS NIGHT BLINDNESS
B. Helps fingernails grow, clots blood, helps digest food
34. What was the first vitamin ever discovered?
VITAMIN A
35. What type of oils are high in Vitamin A?
FISH LIVER OILS
36. Name three foods which have more than 100% RDA for Vitamin C.
CANTALOUPE, BROCCOLI, CAULIFLOWER, GRAPEFRUIT, ORANGES, STRAWBERRIES

REVIEW--REVIEW--REVIEW--REVIEW

VEGETABLE BOWL--KEY, continued

37. What is the most unstable of all vitamins?
VITAMIN C
38. How does Vitamin C help your body?
A. CEMENT CELLS TOGETHER AND PREVENT BACTERIAL INFECTIONS
39. What disease is caused by lack of Vitamin C?
SCURVY
40. What man did an experiment that led to the discovery of Vitamin C?
JAMES LIND
41. What is the scientific name for fruit browning?
OXIDATION
42. What is the definition of a garnish?
AN EDIBLE DECORATION
43. What cutting technique produces strips about 3/4 inch long?
JULIENNE
44. What is the term for cooking a vegetable in its own juice in an oiled, tightly-covered skillet?
BRAISE
45. What is the rule for storing canned goods?
FIRST IN--FIRST OUT
46. Name the four ways fruits and vegetables can be purchased?
FRESH, FROZEN, CANNED, DRIED
47. What does the word enjoyment mean in Latin?
FRUIT
- 48-50. Name the three R's of boiling vegetables.
REDUCE--AMOUNT OF WATER, REDUCE LENGTH OF COOKING TIME,
REDUCE AMOUNT OF PLANT SURFACE AREA EXPOSED

TEST - TEST - TEST - TEST - TEST - TEST - TEST - TEST - TEST - TEST - TEST - TEST - TEST - TEST - TEST - TEST

NAME _____ CLASS _____

FRUITS AND VEGETABLES TEST

MULTIPLE CHOICE

1. What nutrient is unstable and most easily destroyed?
 A. Vitamin A B. Vitamin B C. Vitamin C
2. Which has the highest Vitamin A content?
 A. Apples B. Oranges C. Carrots
3. Which has the highest Vitamin C content?
 A. Apples B. Oranges C. Carrots
4. Name a fruit low in calories and high in Vitamin C.
 A. Apples B. Apricots C. Cantaloupe
5. Fruits that are too hard were picked too:
 A. Early B. Late C. Ripe
6. Which fruit listed below will not brown when cut?
 A. Orange B. Apple C. Banana
7. If you do not want cut fruit to turn brown, place it in a solution of water and:
 A. Baking Powder B. Ascorbic Acid C. Baking Soda
8. When chopping, the largest pieces would be:
 A. Minced B. Diced C. Cubed
9. Most of the nutrients in fruits and vegetables are found:
 A. In the seed B. In the skin C. Just under the skin
10. What is another name for "Fancy Grade" in canned goods?
 A. Grade A B. Grade B C. Grade C
11. What vitamin is water soluble?
 A. Vitamin A B. Vitamin C C. Vitamin D
12. What is another name for Vitamin C?
 A. Acidic Acid B. Ascorbic Acid C. Sulfuric Acid
13. What is the proper term for removing the skin from a vegetable with a knife?
 A. Peel B. Pare C. Julienne
14. The color of fruits and vegetables usually high in Vitamin A is:
 A. Red B. Orange C. White
15. Vitamin A is needed by the body to:
 A. Prevent Night Blindness B. Digest Food C. Clot Blood
16. A good choice for a garnish would be:
 A. Fresh Vegetables B. Silk Flowers C. Fresh Flowers

TEST - TEST - TEST - TEST - TEST - TEST

TEST, continued

MATCHING

MATCH THE VEGETABLE OR FRUIT WITH THE PART OF THE PLANT IT COMES FROM:

- | | | | |
|-------|-----|-------------|-----------|
| _____ | 17. | TOMATO | A. FRUIT |
| _____ | 18. | CAULIFLOWER | B. STEM |
| _____ | 19. | CELERY | C. FLOWER |

TRUE OR FALSE. WRITE THE ENTIRE WORD.

- _____ 20. The scientific name for fruit browning is oxidation.
- _____ 21. The three R's of boiling vegetables are REDUCE--Amount of water used, length of cooking time and amount of salt used.
- _____ 22. The term for cooking a vegetable in its own juice in an oiled, tightly covered skillet is called sauteing.
- _____ 23. Fresh produce is high in vitamins and low in minerals.
- _____ 24. Root vegetables should be stored in the refrigerator.
- _____ 25. The freezing department should be kept at 0 degrees F.
- _____ 26. It is okay to use canned goods that have begun to leak if they are boiled for ten minutes first.
- _____ 27. As they ripen, the starch in fruits and vegetables turns to sugar.
- _____ 28. Ripe fruits are usually heavy for their size.
- _____ 29. Nutrition labeling must be on every food product.
- _____ 30. The largest fruit is always the best tasting.
- _____ 31. The heaviest citrus fruit is the juiciest.
- _____ 32. Grade A canned goods have more nutrients than Grade C.
- _____ 33. Frozen foods should be purchased last at the grocery store and put away first at home.
- _____ 34. A potato is classified as a tuber.
- _____ 35. The rule for canned goods storage is: first in, first out.

BONUS QUESTION: What fruit was originally known as a love apple?

FRUITS AND VEGETABLES TEST--KEY

PLACE YOUR ANSWERS ON THE ANSWER SHEET.

MULTIPLE CHOICE

1. What nutrient is unstable and most easily destroyed?
A. Vitamin A B. Vitamin B C. Vitamin C
2. Which has the highest Vitamin A content?
A. Apples B. Oranges C. Carrots
3. Which has the highest Vitamin C content?
A. Apples B. Oranges C. Carrots
4. Name a fruit low in calories and high in Vitamin C.
A. Apples B. Apricots C. Cantaloupes
5. Fruits that are too hard were picked too:
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6. Which fruit listed below will not brown when cut?
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8. When chopping, the largest pieces would be:
A. Minced B. Diced C. Cubed
9. Most of the nutrients in fruits and vegetables are found:
A. In the seed B. In the skin C. Just under the skin
10. What is another name for "Fancy Grade" in canned goods?
A. Grade A B. Grade B C. Grade C
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A. Vitamin A B. Vitamin C C. Vitamin D
12. What is another name for Vitamin C?
A. Acidic Acid B. Ascorbic Acid C. Sulfuric Acid
13. What is the proper term for removing the skin from a vegetable with a knife?
A. Peel B. Pare C. Julienne
14. The color of fruits and vegetables usually high in Vitamin A is:
A. Red B. Orange C. White
15. Vitamin A is needed by the body to:
A. Prevent Night Blindness B. Digest Food C. Clot Blood
16. A good choice for a garnish would be:
A. Fresh Vegetables B. Silk Flowers C. Fresh Flowers

FRUITS AND VEGETABLES

TEST KEY, continued

MATCHING

MATCH THE VEGETABLE OR FRUIT WITH THE PART OF THE PLANT IT COMES FROM:

- | | | | |
|--------------|-----|-------------|-----------|
| <u> A </u> | 17. | TOMATO | A. FRUIT |
| <u> C </u> | 18. | CAULIFLOWER | B. STEM |
| <u> B </u> | 19. | CELERY | C. FLOWER |

TRUE OR FALSE. WRITE OUT THE WHOLE WORD.

- TRUE 20. The scientific name for fruit browning is oxidation.
- FALSE 21. The three R's of boiling vegetables are REDUCE--Amount of water used, length of cooking time and amount of salt used.
- FALSE 22. The term for cooking a vegetable in its own juice in an oiled, tightly covered skillet is called sauteing.
- TRUE 23. Fresh produce is high in vitamins and low in minerals.
- FALSE 24. Root vegetables should be stored in the refrigerator.
- TRUE 25. The freezing department should be kept at 0 degrees F.
- FALSE 26. It is okay to use canned goods that have begun to leak if they are boiled for ten minutes first.
- TRUE 27. As they ripen, the starch in fruits and vegetables turns to sugar.
- TRUE 28. Ripe fruits are usually heavy for their size.
- FALSE 29. Nutrition labeling must be on every food product.
- FALSE 30. The largest fruit is always the best tasting.
- TRUE 31. The heaviest citrus fruit is the juiciest.
- FALSE 32. Grade A canned goods have more nutrients than Grade C.
- TRUE 33. Frozen foods should be purchased last at the grocery store and put away first at home.
- TRUE 34. A potato is classified as a tuber.
- TRUE 35. The rule for canned goods storage is: first in, first out.

BONUS QUESTION: What fruit was originally known as a love apple?
THE TOMATO

BAKED CINNAMON APPLES

- 1/2 apple per person
- 1 Tbsp. cinnamon-sugar mixture per person
- 1 tsp. margarine per person

Wash 1/2 apple per person. Core out center and pare the upper half of the apple to prevent splitting. Place apple in an ungreased glass baking dish. Place 1 Tbsp. cinnamon sugar mixture and 1 tsp. margarine in the center of each apple half. Place a lid on top of baking dish. Microwave on high about three minutes or until apple is tender when pierced with a fork.

- _____ 1. Get apple, cinnamon-sugar mixture and margarine for your unit.
- _____ 2. Wash, peel, core apples.
- _____ 3. Get out utensils. Place apples in ungreased glass baking dish. Add margarine and cinnamon-sugar mixture.
- _____ 4. Place a lid on baking dish and microwave until apples are tender when pierced with a fork--about three minutes.
- _____ 5. Get two wash cloths and two towels.
- _____ 6. Set table. Clear the table.
- _____ 7. Wash dishes. Wipe out the sink.
- _____ 8. Dry the dishes. Put used linen in washing machine.
- _____ 9. Put away dry dishes. Wipe off the table.
- _____ 10. Wipe off counters and rangetop.
- _____ 11. Wipe out the microwave.
- _____ 12. Sweep floor. Vacuum the carpet.
- _____ 13. TEACHER CHECK OFF FOR CREDIT.

UNIT MEMBERS: _____

HELLO JELL-O LAB--Two People

3 Tbsp. flavored gelatin
1/4 cup boiling water
4 ice cubes

1/4 cup non-dairy whipped topping
2 heaping Tbsp. fruit cocktail

Boil water in microwave. Dissolve gelatin in boiling water. Add ice cubes and stir until gelatin starts to thicken (about 3-5 minutes). Remove any ice. Blend in whipped topping with electric mixer. Add fruit cocktail. Pour into molds. Place masking tape with your name and hour on it on the mold. Refrigerate. Eat the next day.

- 1. Use a tray pick up supplies.
2. Get out needed supplies and equipment.
3. Boil water in glass measuring cup in microwave.
4. Place gelatin in mixing bowl. Add boiling water. Stir well until dissolved.
5. Add ice cubes. Stir. Take out any ice cubes which did not melt.
6. Add whipped topping. Blend with electric mixer.
7. Mix in fruit cocktail.
8. Label molds with masking tape. Pour into molds.
9. Refrigerate.
10. Wash dishes.
11. Dry the dishes. Put used linen in washer.
12. Put the dry dishes away. Wipe off the counters.
13. Sweep the floor.
14. TEACHER CHECK OFF FOR CREDIT.

(NOT COMPLETE UNTIL DISHES ARE WASHED THE NEXT DAY.)

UNIT MEMBERS: [Blank lines for names]

POTATO BOATS

Ingredients listed are for one person.

- | | |
|-------------------|-----------------------|
| 1 baked potato | 1 Tbsp. milk |
| 1 Tbsp. margarine | 2 Tbsp. grated cheese |
| 1/8 tsp. salt | Paprika |

Remember: 1/8 TEASPOON EQUALS ONE HALF OF A 1/4 TEASPOON.

- _____ 1. Use a tray to get the supplies. Pick up enough ingredients for each person in your unit.
- _____ 2. Fill the sink with hot, soapy water.
- _____ 3. Get two clean dish cloths and towels.
- _____ 4. Cut a criss-cross in the top of each potato with a sharp knife. Be careful not to break the skins.
- _____ 5. Set out a large bowl to mash potatoes. Scoop out the inside of the potatoes with a spoon.
- _____ 6. Add the margarine and salt to the bowl of potatoes. Beat until "mealy" with electric mixer.
- _____ 7. Add the milk. Beat until fluffy.
- _____ 8. Spoon the potato mixture back into the potato skins.
- _____ 9. Sprinkle with grated cheddar cheese and paprika.
- _____ 10. Place potatoes on a large plate. Microwave about 5 min. until potatoes are hot.
- _____ 11. Set the table. ENJOY YOUR POTATO BOATS!
- _____ 12. Clear the table. Wipe off the counters and table.
- _____ 13. Wash the dishes. Wipe out the sink.
- _____ 14. Dry the dishes.
- _____ 15. Wipe the microwave inside and out.
- _____ 16. Sweep the floor.
- _____ 17. Vacuum the carpet.
- _____ 18. TEACHER CHECK OFF FOR CREDIT.

UNIT MEMBERS: _____

STIR FRIED VEGETABLES

VEGETABLES

- 9 slices water chestnuts
- 1/3 stalk celery (Chinese Cut)
- 1/3 carrot (Chinese Cut)
- 2 Tbsp. oil
- 6 chunks pineapple, sliced in half
- 2 Tbsp. bean sprouts

Wash and slice vegetables. Heat oil in frying pan. Add water chestnuts, celery, onion and carrots. Use wooden spoon to turn often. When heated through, add pineapple and bean sprouts, cook uncovered ten minutes. Stir in sauce. Serve over cooked rice.

SAUCE

Make a paste of:

- 1/2 cup cold water
- 1/2 cup pineapple juice
- 1 Tbsp. cornstarch
- 1 Tbsp. vinegar
- 2 Tbsp. sugar
- 2 tsp. ketchup

Place in saucepan. Stir constantly with whisk or mixture will get lumpy. Bring to boil. Boil for two minutes. Mixture should be thick.

- _____ 1. Use a tray to pick up supplies for your unit.
- _____ 2. Fill sink with hot, soapy water.
- _____ 3. Get two clean dish cloths and towels.
- _____ 4. Get out utensils. Wash vegetables.
- _____ 5. Slice vegetables Chinese Style on cutting board.
- _____ 6. Heat oil in frying pan. Add water chestnuts, celery, and carrots. Use wooden spoon to turn.
- _____ 7. When heated through, add pineapple and bean sprouts, cook uncovered ten minutes.
- _____ 8. Cook sauce in saucepan until it boils for two minutes. Add sauce to vegetables.
- _____ 9. Heat 1 cup rice in microwave about three minutes.
- _____ 10. Set the table.
- _____ 11. Clear the table. Wipe off counters and table.
- _____ 12. Wash dishes. Wipe off the range.
- _____ 13. Dry dishes. Put used linen in washing machine.
- _____ 14. Sweep floor. Vacuum the carpet.
- _____ 15. TEACHER CHECK OFF FOR CREDIT.

UNIT MEMBERS: _____

FRUIT AND VEGETABLE RECIPES

BAKED CINNAMON APPLES

1/2 apple per person

1 Tbsp. cinnamon-sugar mixture per person

1 tsp. margarine per person

Wash 1/2 apple per person. Core out center and pare the upper half of the apple to prevent splitting. Place apple in an ungreased glass baking dish. Place 1 Tbsp. cinnamon sugar mixture and 1 tsp. margarine in the center of each apple half. Place a lid on top of baking dish. Microwave on high about three minutes or until apple is tender when pierced with a fork.

POTATO BOATS

Ingredients listed are for one person.

1 baked potato

1 Tbsp. milk

1 Tbsp. margarine

2 Tbsp. grated cheese

1/8 tsp. salt

Paprika

Cut a criss-cross in the top of each potato. Scoop out the insides and place in a bowl. Add the margarine and salt. Beat until mealy. Add milk. Beat until fluffy. Spoon mixture back into the potato skins. Sprinkle with cheese and paprika.

STIR FRIED VEGETABLES

VEGETABLES

9 slices water chestnuts

2 Tbsp. oil

1/3 stalk celery (Chinese Cut)

6 chunks pineapple, sliced in half

1/3 carrot (Chinese Cut)

2 Tbsp. bean sprouts

Wash and slice vegetables. Heat oil in frying pan. Add water chestnuts, celery, onion and carrots. Use wooden spoon to turn often. When heated through, add pineapple and bean sprouts, cook uncovered ten minutes. Stir in sauce. Serve over cooked rice.

SAUCE

Make a paste of:

1/2 cup cold water

1 Tbsp. vinegar

1/2 cup pineapple juice

2 Tbsp. sugar

1 Tbsp. cornstarch

2 tsp. ketchup

Place in saucepan. Stir constantly with whisk or mixture will get lumpy. Bring to boil. Boil for two minutes. Mixture should be thick.

HELLO JELL-O--STUDENT GUIDE

Gelatin desserts add color and sparkle to meals. They can be prepared in a variety of different ways. You can make gelatin desserts with either unflavored or flavored gelatin which is a mixture of sugar, gelatin and flavoring. It can be served clear or it may have added fruits and nuts when it begins to thicken and before it is poured into molds. Use leftover canned fruit juice liquid in making gelatin to give it added flavor and nutrients.

Gelatin is a product manufactured by the meat industry. It is formed from collagen, a protein in the connective tissue of animals. Gelatin is manufactured from bones and hides and is then purified. Cooking softens the connective tissue into gelatin. Recently, gelatin is being made from seaweed instead of from meat. It can be dissolved in cold water instead of hot water and becomes firm very quickly. It is usually dried and sold in packaged form.

Gelatin changes a liquid into a jelly-like solid. This is a process called gelation. It is a gradual process. It involves the linking together of gelatin molecules in various places to form a three-dimensional structure. The longer a gelatin mixture is allowed to stand, the stiffer it will become. It is usually best to allow gelatin mixtures to stand several hours or overnight at a low temperature in order for the mixture to obtain maximum stiffness.

Gelatin is 100% protein. However, it is not a wonderful protein food, because it lacks some amino acids. A protein is made up of 22 different known fragments called amino acids. Each one has a special name and does a particular job in building up the body. There are eight of these amino acids that need to be present at the same time in order for the body to use the protein properly. Gelatin contains only four of the eight essential amino acids. It is the only incomplete protein animal food. When a food has all eight of these essential amino acids present, we say it is a complete protein.

One tablespoon of gelatin contains about 30 calories and 9 grams of protein. Its nutritional contribution is too small to really be counted.

In an experiment, some animals were given gelatin as their only protein food. They failed to grow, their appearance deteriorated and finally they died. When milk was added to this same diet, similar animals not only lived, but grew normally. Milk is a complete protein food which contains all of the essential amino acids needed by the body to be used fully.

Gelatin is sometimes used to thicken, firm, gel and stabilize foods such as ice cream, frozen desserts, chocolate milk, artificially

sweetened desserts and some beverages. In ice cream, it keeps the ice crystals small and gives body to the mixture. It also prevents ice cream from losing shape so quickly when removed from the freezer. In some less expensive ice creams, too much gelatin is added as a filler and then the ice cream becomes gummy, especially when stored in the freezer for a long time.

When using packaged fruit-flavored gelatin, boiling water is added and the mixture is stirred to dissolve the gelatin. However, tiny granules of gelatin often remain on the spoon and bowl when only hot water is used. If you soften the gelatin first in a small amount of cold water, this should not happen.

When using plain granular gelatin, it is usually soaked in cold water first to soften the gelatin and then it has hot water added. After the gelatin solution has been dissolved, it is set in the refrigerator where it will form a gel.

Packaged fruit-flavored gelatins contain a lot of sugar unless you use one of the new kinds sweetened with Aspartame (Nutrasweet). One four-ounce serving of plain, regular gelatin contains about 80 calories. This is before fruits, vegetables or whipping cream are added.

Gelatin that has been cooled very quickly (in the freezer) will melt faster at room temperature than gelatin that has been cooled slowly (in the refrigerator).

If too much fruit juice is added to gelatin, it may prevent gelation of the mixture or may make a very soft gel that will not set up. Adding a small amount of fruit juice will produce a soft gel that still sets up well and is not rubbery.

If fruits or vegetables are to be combined with gelatin, the mixture should be cooled and allowed to stand until it is the thickness of thick egg white first. It will be thick enough at this point to prevent the vegetable or fruit from floating or shrinking to the bottom. Raw pineapple should not be used with gelatin because a gel will not form. Pineapple contains the enzyme bromelain which digests protein and will not allow the bonds to form which create gelation.

FOAMS--If the gelatin is to be beaten in a whip, sponge or cream, it should be cooled until it has reached the consistency of thick egg white. It will yield a foam at least double the volume of the original amount. If gelatin is beaten before it has started to thicken, much time will be wasted because it will take a long time to whip and it will not have as much volume. If too much time passes and the gelatin has already started to set, small bits of solid gelatin particles will be seen and it will not beat to twice the original amount.

CREAMS--Bavarian and Spanish creams are names of foods which have fruits and whipped cream folded into the gelatin mixtures.

SPONGES--Sponges or snows are gelatins to which you add beaten egg whites. They are often served with fruit or custard sauces.

MOLDS--For molded gelatin salads, fruits and vegetables are often cut finer than for salads that are not molded. Meats and chicken used in salads are usually diced.

FOLLOW THESE STEPS TO UNMOLD GELATIN DESSERTS EASILY:

1. The container in which the gelatin is to be set may be oiled lightly with salad oil so that it will be easy to unmold the gel. When the container with the gel is dipped momentarily in lukewarm water, the oil becomes more fluid. Hot water should not be used, as this will melt the gelatin. Loosening the gel at one side of the container with a paring knife will allow air to come between the gel and the container and the gelatin will then slide from it.
2. Place an inverted serving dish on top of the mold and turn the mold upside down. Hold the mold and dish tightly and shake gently to loosen the gelatin from the mold.
3. If the gelatin does not unmold easily, dip the mold in warm water again.

AFTER YOU FINISH THE ASSIGNMENT THAT GOES WITH THIS ACTIVITY, YOU MAY CHECK OUT SUPPLIES TO MAKE JELL-O.

Name _____

Class _____

HELLO JELL-O WORKSHEET

**ONE POINT POSSIBLE FOR EACH CORRECT ANSWER.
TEN POINTS POSSIBLE FOR THE LAB. THIRTY POINTS TOTAL.**

1. Forming a liquid into a jelly-like solid.
2. The only incomplete protein animal food.
3. A complete protein animal food.
4. A new kind of gelatin product is made from this.
5. Gelatins are beaten to this when the consistency of egg whites
6. Fruits and whipped cream folded into gelatin.
7. Use this on molds to remove mixtures easily.
8. Gelatin mixtures with added egg whites.
9. Dip molds in this temperature of water to remove gelatin quickly.
10. Prepare meats and vegetables like this before adding to gelatin.
11. Gelatin is added to this to make it thicker.
12. The only nutrient found in gelatin.
13. Gelatin is made from this connective tissue.
14. One serving of gelatin contains about thirty of these.
15. The small fragments that make up protein.
16. Gelatin is added to ice cream to keep these small.
17. Packaged, fruit-flavored gelatin contains this.
18. Raw pineapple contains this enzyme.
19. This process softens connective tissue.
20. Without adequate protein, an animal may not do this.

KEY***

HELLO JELL-O--KEY

ONE POINT POSSIBLE FOR EACH CORRECT ANSWER.
TEN POINTS POSSIBLE FOR THE LAB. THIRTY POINTS TOTAL.

1. Forming a liquid into a jelly-like solid. GELATION
2. The only incomplete protein animal food. GELATIN
3. A complete protein animal food. MILK
4. A new kind of gelatin product is made from this. SEAWEED
5. Gelatins are beaten to this when the consistency of egg whites FOAMS
6. Fruits and whipped cream folded into gelatin. CREAMS
7. Use this on molds to remove mixtures easily. OIL
8. Gelatin mixtures with added egg whites. SPONGES
9. Dip molds in this temperature of water to remove gelatin quickly. WARM
10. Prepare meats and vegetables like this before adding to gelatin. DICED
11. Gelatin is added to this to make it thicker. CHOCOLATE MILK
12. The only nutrient found in gelatin. PROTEIN
13. Gelatin is made from this connective tissue. COLLAGEN
14. One serving of gelatin contains about thirty of these. CALORIES
15. The small fragments that make up protein. AMINO ACIDS
16. Gelatin is added to ice cream to keep these small. ICE CRYSTALS
17. Packaged, fruit-flavored gelatin contains this. SUGAR
18. Raw pineapple contains this enzyme. BROMELIN
19. This process softens connective tissue. COOKING
20. Without adequate protein, an animal may not do this. GROW

Name _____

Class _____

IN THE SUPERMARKET--FRUITS & VEGETABLES

DIRECTIONS: Choose one vegetable and one fruit that can be purchased at the store in at least three of the following forms: fresh, frozen, dried or canned. Use the labels and a cookbook to help you determine the correct answers. Compare the following items:

METHOD OF PROCESSING	COST PER SERVING	PREPARATION TIME	COOKING TIME
FRUIT			
A.			
B.			
C.			
VEGETABLE			
A.			
B.			
C.			

25. What is the least expensive way to buy the fruit per serving?
26. Which fruit requires the least amount of preparation time? (Including cooking time)
27. Which way would you prefer to buy this particular fruit?
28. What is the least expensive way to buy the vegetable per serving?
29. Which vegetable requires the least amount of preparation time?
30. Which way would you prefer to buy this particular vegetable?

IN THE SUPERMARKET KEY--FRUITS AND VEGETABLES--KEY

Your teacher will correct this assignment for you.

Name _____

Class _____

MAKING RAISINS**Materials Needed:**

Fresh, firm seedless grapes
 Scales
 Colander
 Large container of boiling water
 Tray with sides for baking
 Oven or food dehydrator
 Glass container with tight-fitting lid

1. Weigh the grapes and record the data below.
2. Place the grapes in a colander and wash them thoroughly under running water.
3. Drain the grapes completely. Dip the grapes in boiling water to crack the skins.
4. Remove the grapes from their stems and spread one layer of grapes evenly on a tray with sides.
5. Place the tray containing the grapes in an oven or other heating device. Set the oven on BAKE at the lowest temperature it has.
6. Turn the grapes at least twice while they are drying. **WATCH THEM CAREFULLY.**
7. Let the grapes remain in the oven until they are pliable. This requires from two to six hours, depending on the temperature and humidity. The higher the temperature and the lower the humidity, the less time will be required.
8. When the grapes are dry, remove them from drying chamber and weigh. Record the data. Compare this with the original data.
9. Store raisins in the glass container.

(Adapted from "Making Raisins" U.S.D.A. Science Study Aid No. 1)

WEIGHT OF ORIGINAL GRAPES _____

WEIGHT OF RAISINS _____

HOW DO YOU ACCOUNT FOR THIS DIFFERENCE? _____

PARENT'S SIGNATURE _____

TEACHER CHECK OFF _____

(Bring a small sample of the raisins to class for the teacher to see)