Harvest of the Month
October 2004

GRAPES

The goal of the “Harvest of The Month” program is to increase enjoyment & consumption of fruit & vegetables and to motivate students to make healthy choices by tasting & exploring different fruits & vegetables.

GREAT GRAPE FACTS

- Today, an estimated 8,000 different varieties of grapes are cultivated. Over 50 different varieties* are grown in California.
- California is by far the nation’s biggest grape producer, growing 97% of the USA’s table grapes. In fact, California out produces every grape growing country in the world.
- In the U.S., per capita consumption of table grapes is 8 pounds per person.
- The best selling grape in the U.S. is the green Thompson Seedless.
- On average there are 100 berries per bunch on each grape cluster.
- Botanically, grapes are considered berries.
- Concord grapes are one of only three fruits native to North America. The other two: blueberries and cranberries.
- Grapes contain phytonutrients which are strong antioxidants that help prevent cell damage that can lead to disease.

Nutrition Facts

<table>
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<th>Amount Per Serving</th>
<th>Calories 110</th>
<th>Calories from Fat: 2 % Daily Value*</th>
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<tr>
<td></td>
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<td>Total Fat 0g</td>
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<td>Saturated Fat 0g</td>
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<td></td>
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<td></td>
<td>Vitamin A 2%</td>
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<td></td>
<td></td>
<td>Calcium 2%</td>
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</table>

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

*Underlined words are defined in the Grape Glossary (Page 4)
GRAPE MOMENTS IN HISTORY

- Grapes are one of the oldest known crops cultivated. Approximately 8000 years ago the grape variety Vitis vinifera was grown between the Black Sea and the Caspian Sea, near northern Iran.
- There are records of Egyptians growing grapes 6000 years ago.
- Grapes are mentioned in the oldest known language, Sumerian, dating back 5000 years ago.
- Native Americans were known to grow grapes 3800 years ago.
- In early Roman times, birch trees were planted near grape vines, so the vines would climb the tree, rather than spread on the ground. Thus the first trellis system was developed.
- In 1769 Spanish Friars began growing grapes at missions in California.
- In the late 1960's and early 1970's Cesar Chavez used a grape boycott to peacefully fight for better working conditions and higher wages for migrant farm workers, who picked the grapes.
- As recently as 1997 scientists at the University of Illinois released evidence that grapes may help prevent cancer.

Project: Draw a timeline to represent these grape moments in history

GRAPES ACROSS THE CURRICULA

1. Dehydrate Grapes – (see “From Grapes to Raisins” Pg. 3)
2. Grape Activity – Test different varieties of grapes for pH level using Litmus paper. Is there any relationship between acidity level and color?
   - How would temperature affect mold growth?
   - Does it matter if the grapes are wet or dry?
   - What other variables can you think of that would affect mold growth?
   - Is mold in food sometimes beneficial?
4. Grape Attributes – describe the inside/outside of a grape. Note the size, shape, texture, taste, and smell.

*CAUTION: Be sure to keep all mold experiments enclosed. Some people have allergies to mold spores.
Glittering Grapes

Ingredients:
1 pound red seedless grapes  
1 three oz package of cherry or strawberry flavored gelatin powder (match grape color to gelatin flavor)

Directions:
Divide grapes into small bunches, rinse & drain. Put gelatin powder in a small plastic container with a lid that can be frozen. Add grapes and shake to coat. Shake off excess powder, put lid on container and freeze. Serve grapes frozen. 

A Greater Grape-ier Healthier Halloween

Avoid the traditional candy-filled classroom at Halloween make a healthy snack to enjoy with your students:

Grape Salsa Recipe

Ingredients:
2 cups coarsely chopped seedless grapes  
1 cup chopped green onions 
1 cup diced fresh or canned Anaheim chilies 
2 tablespoons vinegar 
1 clove garlic, minced 
1/2 teaspoon salt 
1/8 teaspoon bottled hot pepper seasoning (optional)

Directions:
Combine all ingredients in medium bowl; mix well. Let stand at least 1 hour before serving. Drain off excess liquid before serving. Makes about 2 cups. (Serve with baked tortilla chips)
Grapes and Nutrition:

Taste and convenience are the top reasons for the popularity of grapes, but there is a real nutrition bonus hidden in these sweet treats. Grapes are high in vitamin C and contain a variety of phytonutrients. Phytonutrients are substances found in plant foods that may help explain the disease prevention properties of diets high in fruits, vegetables, and other plant foods.

Phytonutrients are strong antioxidants that help prevent cell damage that can lead to disease. Four of the phytonutrients found in grapes belong to a group called phenolic compounds. Grapes are actually one of the few foods that contain resveratrol, a phytonutrient that has been shown to slow down tumor growth in animals. Some of the phytonutrients in grapes may also help prevent heart disease by inhibiting the build up of plaque in coronary arteries.

Physical Activity Corner

Fruit Basket

A quick physical activity break which can be adapted for the classroom or outside.

Equipment needed: None

Object of Challenge: Do the right thing in 5 seconds or less.

Skills Needed: Listening intently; Thinking quickly; Following instructions accurately; Working cooperatively.

Prep: Write on the board the fruits and their corresponding movements or teach them to the class one fruit at a time.

Fruits: Apple: Sit down; Orange: Jump up; Lemon: Make a sour looking face; Bananas: Stand side by side; Watermelon: Lie down on the ground; Kiwi: Jog to the left side of the room; Pineapple: Skip to the right side of the room; Grapes: Get into a cluster;

Fruit Basket: Everyone get together in one group

Challenge: Caller will say a fruit. Everyone has 5 seconds to do the appropriate response or face a consequence.

Consequence: Do 10 jumping jacks, smile at 3 people, do a muscle pose, etc.

Variation: Change the type of fruit (mango, pear), locomotor skill (galloping, leaping), the level (high, low) or the path of movement (zigzag, diagonal).

Grape Glossary

migrant farm workers — people who move from place to place in order to find work

cultivate — to grow plants (including all of the steps from preparing the soil, planting, watering to harvesting)

trellis — structure of crossed wood used as a support for climbing plants

dehydrate — to remove water from (as with foods)

grape variety — one kind of grape that differs from another by taste, color, size...

phytonutrient — Phyto refers to a plant (plant nutrient). They are not required for normal functioning of the body but nonetheless have a beneficial effect on health. Lycopene is an example of a phytonutrient found in tomatoes.

boycott — to join with other people in refusing to deal with a person or a company in order to change an unjust situation.
"The Hungry Fox & the Grapes"
A story from Aesop’s Fables

One day, a fox was trotting through the woods when he spotted a large, juicy bunch of grapes hanging high up on a vine. The fox was hungry and the grapes looked ripe and delicious. The fox tried jumping up to catch some of the grapes in his mouth. But however high he jumped the grapes were always just out of his reach. He became tired and angry as he jumped again and again. Soon the fox realized he would never reach the grapes. He walked away feeling disappointed. To make himself feel better, he muttered that the grapes looked small and unripe and would have tasted sour.

*Moral:* It is easy to scorn or despise what you cannot have. (This is where the saying “sour grapes” comes from).

**K-2 Connections:**

**Objective:** To explore the *moral* of the fable by interpreting the feeling of “frustration”

Read *Fox and the Grapes* aloud to the class.

Ask children:
- How might you feel if you were the hungry fox who couldn't get the grapes? (Sad, frustrated, grumpy, mad)
- Do you ever feel like the fox when you want something that you can not get or can not have?
- Have you ever felt frustrated? (Allow children to give their best examples.)

Using the attached template (Pg. 7), have students finish the writing prompt and draw a picture of when s/he felt frustrated.

**3-5 Connections:**

**Objective:** To understand the terms *fable* and *moral*; to write a personal fable using the moral from “The Fox and the Grapes”

- Read the *Fox and the Grapes* aloud to the students or copy for distribution.
- Discuss the story characters, setting and purpose.
- Define: Fable & Moral

Fable: A fable is a short story in which animals talk and act like humans. The purpose of the story is to teach a moral point or a lesson.

Moral: An important point or lesson that is taught in a story or fable.

*Copy and distribute other fables (Pg. 6).* Have students choose a moral and write their own versions of the story.

**Additional Book Suggestions:**

- *A Book of Fruit* (Lember) Pre K – K
- *My Grapes* (McGrath) Gr. K – 1
- *First Day in Grapes* (Perez) Gr. 1 – 3
- *Commander Toad and the Planet of the Grapes* (Yolen) Gr. 1 – 3
- *Daddy, There’s a Hippo in the Grapes* (Dobkins, Botero) Gr. 4 – 5
The Hare and the Tortoise

The Hare was once boasting of his speed before the other animals. “I have never yet been beaten,” said he, “I challenge any one here to race with me.” The Tortoise said quietly, “I accept your challenge.” “That is a good joke,” said the Hare; “I could dance round you all the way.” “Keep your boasting till you’ve beaten me,” answered the Tortoise. “Shall we race?”

So a race course was set and the start was made. The Hare darted almost out of sight at once, but soon stopped and laid down to have a nap. The Tortoise plodded on and plodded on, and when the Hare awoke from his nap, he saw the Tortoise just near the finish line and could not run up in time to save the race.

➢ Moral: Slow and steady wins the race.

The Dove and the Ant

An Ant, going to a river to drink, fell in, and was carried along in the stream. A Dove felt sorry for her, and threw a small leaf into the river by means of which the Ant reached the shore. The Ant afterward, seeing a man with a gun aiming at the Dove, stung him in the foot sharply, and made him shout aloud, and so that the Dove flew away. The Ant had saved the Dove’s life.

➢ Moral: Little friends may prove to be great friends.

The Fox and the Goat

A FOX one day fell into a deep well and could not get out. A Goat, overcome with thirst, came to the same well, and seeing the Fox, inquired if the water was good. “Oh Yes!” said the Fox, “it is excellent! Come down.” The Goat, without thinking jumped down, but just as he drank, the Fox informed him that there was no way out and suggested a plan for their escape. “If,” said he, “you will place your front feet upon the wall and bend your head, I will run up your back and escape, and will help you out afterwards.” The Goat agreed and the Fox leaped up his back. Steadying himself with the Goat’s horns, he safely reached the mouth of the well and made off as fast as he could. When the Goat scolded him for breaking his promise, he said, “You foolish old fellow! If you had as many brains in your head as you have hairs in your beard, you would never have gone down before you had checked the way up.”

➢ Moral: Look before you leap.
I feel frustrated when ___________________.