Science of Life Explorations

The Fruit Belt:

Fruits of New York
It's Grape to Live in NY!

New York is ranked 3rd in grape production nationwide, behind California and Washington. In 2005, the grape crop was worth $34.3 million dollars.

Grapes are grown on farms known as VINEYARDS. Grapes grow on vines that grow up and wrap around posts and wire trellises built by grape growers. The grape vines take a long time to grow before they start producing their own fruit.

Farmers use PRUNING to help their vines grow bigger and produce better quality grapes. Pruning is when farmers cut the ends of the vines so that the vines will grow more branches and produce more grapes.

Many of New York’s vineyards are in the Finger Lakes region, near Lake Erie, in the Hudson valley and on the eastern end of Long Island.

These regions of New York, especially the Finger Lakes and eastern Long Island, are well known for the many vineyards that are owned and run by local WINERIES. Wineries are businesses that FERMENT grapes to make wine. Many people like to travel to New York and go on tours of the wineries.

Only 1/3 of New York’s grapes are used to make wine. The other 2/3 of grapes make grape juice and other grape products like jelly and juice. The harvest season for grapes last from September through the end of October.

One healthy thing about grapes is that they contain a lot of PHYTONUTRIENTS. Phytonutrients give plants their scent, color, and flavor. Studies have shown that phytonutrients help the human body prevent some cancers and heart disease. Grapes also contain vitamin C.
There are many kinds of grapes. Grapes can be grouped together based on their purpose. Some are meant to be eaten (table grapes) or if they are meant for wine-making (wine grapes). Grapes come in many colors such as yellow, green, red, blue, purple and black.

These are some common Table grape varieties in New York:

- Alden
- Golden Muscat
- Steuben
- NY Muscat
- Swenson Red

These are some common Wine grape varieties in New York:

- Catawba
- Concord
- Moore’s Diamond
- Niagara
- Delaware

What two states produce more grapes than New York?

________________________

________________________

If New York is the 3rd largest producer of grape, how many states produce fewer grapes or no grapes at all?

________________________

What are “Table” grapes?

________________________

________________________

Name an area in NY that is well known for its wineries:

________________________
Strawberry Fields!

New York comes in 7th place nationwide in strawberry production. The 2005 crop was worth $8.27 million. 95% of the strawberries harvested were sold fresh and the other 5% were processed.

Strawberries were first CULTIVATED in ancient Rome. The Native Americans harvested wild berries in the wilderness. They were also used in medicines during the middle ages of Europe.

Seven medium strawberries provide 140% of your daily requirement of Vitamin C, 20% of your daily requirement of Folic Acid (also known as Vitamin B-9), and only 50 calories.

Strawberries are also fat free, sodium free, and cholesterol free. They also contain ellagic acid which helps prevent cancer.

To get a bigger harvest, farmers will pick off the strawberry blossoms before any fruit grows. The plant will be more likely to grow bigger before it makes fruit. The bigger the plant, the more fruit it can produce.

Strawberries can be grouped into three kinds, June-bearing, double-cropping, and day-neutrals. June-bearing strawberries are ready to harvest in spring. They are the most common kind of strawberry. June is strawberry season!

Strawberries are often eaten fresh, added to gelatin, made into jam, pie, juice, and other treats.

What is your favorite way to eat strawberries?

Name two healthy things about strawberries: _______
Enzyme - complex proteins produced by living plant or animal cells that start biochemical reactions

Ferment - the process of yeast (a small bacteria) feeding on the natural sugar found in foods like grapes or grains

Orchards - farms on which fruit is grown

Oxidation - a chemical action of combining with oxygen

Pruning - to cut off or cut back parts of plants for better shape or more fruitful growth

Phytonutrients - nutrients concentrated in the skins of many vegetables and fruits, and are responsible for their color, scent, and flavor. They help slow aging and prevent disease.

Variety- when things are a little different from each other

Vineyards - farms that grow grapes

Wineries - businesses that use grapes from vineyards to make wine
Review

New York!

* New York is:
  - in 2nd nationwide for APPLE production
  - in 3rd nationwide for GRAPE production
  - in 7th nationwide for STRAWBERRY production

* Apples and strawberries have no fat, sodium or cholesterol in them.

* Grapes have phytonutrients which help prevent cancer and heart disease.

* Strawberries have 140% daily requirement of vitamin C and 20% daily requirement of Folic Acid (B-9).

* Removing blossoms on strawberry plants and pruning grape vines help the plants grow bigger and produce more fruit.

* Table grapes are good tasting and eaten fresh, wine grapes are better for fermenting and making wine.

* Three types of strawberries: June-bearing, double-cropping, and day-neutrals.
1. Grape production for New York makes it the country’s:
   a. 7th biggest producer
   b. 3rd smallest producer
   c. 3rd biggest producer
   b. 7th smallest producer

2. Vineyards that also produce their own wine are called:
   a. wine-makers
   b. vine-wines
   c. wineries

3. Why would a farmer pick off the blossoms on a strawberry plant? 
   This encourages the plant to grow more fruit
For Teachers and Parents:

New York State is one of the top five states in agricultural production in the United States. Our main agricultural industry is dairy. Our 2nd biggest industry is fruit production. The top three fruit crops in New York’s fruit industry are apples in 1st place, grapes in 2nd place, and strawberries in 3rd place.

According to the New York State Department of Agriculture and Markets, New York’s fruit crop receipts were valued at $216 million in 2004. The crop worth of apples was $187 million in 2005. The crop worth of grapes was $34.3 million in 2005. Also in 2005, 5.2 million pounds of strawberries were produced and earned growers $8.06 million.

This lesson gives students an insight into the fruit industry. Fruits are grown and harvested by real people whose livelihoods depend on good crops. Fruits such as our New York grapes bring in tourists from other areas to tour the vineyards and wineries in the Lake Erie, Finger Lakes, and Hudson River valley regions. Many towns celebrate their crops with festivals and counties often have agricultural exhibits at their fairs.

Knowing more about what foods New York State farmers produce can give many residents a sense of pride in their state.
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What two states produce more grapes than New York? ________________

California and Washington

If New York is the 3rd largest producer of grape, how many states produce fewer grapes or no grapes at all?

50 - 3 = 47

What are “Table” grapes? ________________

Grapes meant for eating fresh, not for making wine

What area is well known for its wineries? ________________

Finger Lakes Region or Long Island

List one healthy thing about grapes: ________________

They contain phytonutrients and Vitamin C