

# Grapes

**1. Where are most phytochemicals found in grapes?**

Primary/Secondary-level response:

Most phytochemicals (also known as phytonutrients) are found in the skin of the grape.

**2. Name three health benefits of iron. What happens if you consume too much iron? Too little?**

Primary/Secondary-level response:

- Carries oxygen to cells and tissues
- Assists in making red blood cells
- Aids in brain development
- Supports the immune system

Too much iron can cause nausea, vomiting, and constipation. Very high doses can be fatal. Iron overload can contribute to health problems such as heart disease. As few as five high-potency iron tablets can be fatal for a small child. If you don't consume enough iron, the result can be iron deficiency anemia. Oxygen is not as available to the body, resulting in fatigue, dizziness, headaches, lowered immune function, and interference with the ability to learn.

**3. There are two different descriptions of sugars. How are they classified? Why are they different?**

Primary-level response:

The two classifications for sugar are simple and complex. This depends on their chemical structure and how quickly the body breaks it down and absorbs it. Simple sugars break down faster.

Secondary-level response:

The two classifications for sugar are simple and complex. This depends on their chemical structure and how quickly the body breaks it down and absorbs it. Simple sugars break down faster, whereas complex sugars take longer to break down and be

absorbed by the body. Some examples of simple sugars are table sugar, candy, soda, and cookies.

- 4. What does the color of a grape’s skin indicate about the environment where it was grown?**

Primary/Secondary-level response:

Grapes come in three colors – green, red, and blue-purple. The various colors are harvested at different times of the year and vary in the sweetness and uses.

- 5. Map the origin of grapes and the various geographical regions in California where grapes are grown.**

Primary/Secondary-level response:

There is evidence that Egyptians were involved with grape production. Grapes came to California when the Spanish set up missions in California. Most of California’s table grape production is in the southern San Joaquin Valley region, with the Coachella Valley region accounting for the bulk of the remaining production. Major grape-producing counties include Kern, Tulare, Riverside, and Fresno, with much smaller production in Madera, San Joaquin, San Bernardino, Kings, Merced, and Imperial counties.

- 6. List the different uses (e.g., fresh, juice, dried) for which grapes are harvested in California. Rank them in order of use from greatest to least use.**

Primary/Secondary-level response:

California grown grapes are used for wine, marketed and eaten as fresh, dried into raisins, and processed into juice and jelly/jam.

Sources:

[www.fruitsandveggiesmatter.gov/month/grapes.html](http://www.fruitsandveggiesmatter.gov/month/grapes.html)

[www.ipmcenters.org/cropprofiles/docs/cagrapes-table.html](http://www.ipmcenters.org/cropprofiles/docs/cagrapes-table.html)

[www.fas.usda.gov/htp/horticulture/grapes.html](http://www.fas.usda.gov/htp/horticulture/grapes.html)

Updated: May 2011