

NUTRITION

Eating fruit is part of a balanced and healthy diet as fruits provide vitamins and minerals for overall health and disease prevention. When eaten raw, fruits contain water that our bodies need to stay hydrated as well as fiber, which is important to digestive health. While fresh fruits have the most vitamins, they are not always available – like in winter.

OTHER GOOD FRUIT OPTIONS INCLUDE 100% FRUIT JUICE WITH NO SUGAR ADDED, DRIED FRUIT, FROZEN FRUIT, OR CANNED FRUIT IN 100% JUICE OR LIGHT SYRUP. IT IS RECOMMENDED TO EAT 1 TO 2 FRUIT SERVINGS PER DAY, DEPENDING ON YOUR AGE. GENERALLY, ONE CUP OF FRUIT OR FRUIT JUICE OR 1/2 CUP DRIED FRUIT IS THE EQUIVALENT OF A SERVING.



THE MATHEMATICS OF FRUIT

Weigh fruit at the market or in class.



Which weighs more?

one banana, one apple or one orange?



_____/lb. _____/lb. _____/lb.



How many individual pieces of fruit does it take to get

1 pound of apples?

1 pound of bananas?

1 pound of oranges?



What is the price per pound advertised for each of these fruits?

Bananas \$ _____/lb. Apples \$ _____/lb.

Oranges \$ _____/lb.

Fill in the chart below to determine how much fruit you can buy at each budget level. Which fruit can you get the most of for the least cost?

Budget	Bananas	Apples	Oranges
\$10.00	lb.	lb.	lb.
\$5.00	lb.	lb.	lb.
\$1.00	lb.	lb.	lb.

VOCABULARY

ACRE

A measure of land area in the US that equals 4,849 square yards.

AGRI-TOURISM

Agriculture + tourism. The practice of touring agricultural areas to see farms and often to participate in farm activities.

BOTANY

The study of plants.

CANNING

The process of cooking and/or storing food to preserve it for later use.

DAILY VALUE

Nutrition specialists know how much of each food group kids and adults should get every day to have a healthy diet. The daily value (DV) tells you how much of this food you should eat to meet these daily goals.

FARMER'S MARKET

A location where farmers and vendors come together to sell their products directly to consumers.

FRUIT

A food that contains the seeds of the plant.

NUTRIENT

A substance that plants, animals, and people need to live and grow.

ORGANIC

An agriculture method that avoids most synthetic (made by chemical) materials, such as pesticides and fertilizers.

PATENT

The exclusive right granted to an inventor for a manufacture, use, or sell an invention for a certain number of years.

PRUNING

To cut off undesired twigs, branches or roots.

SAVORY

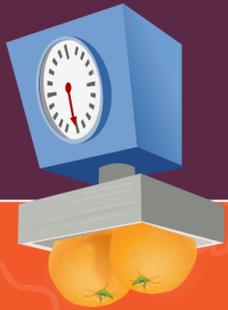
Foods that are salty and/or spicy but not sweet.

VEGETABLE

The part of a plant that can be eaten raw or cooked; can refer to leaves, stalks, stems, roots or flowers.

Did you know?

When looking for the weight on food packaging pounds will often be abbreviated to lb.



HEALTHY EATING, SMART LEARNING!

Nevada's School Meal Pattern has a number of benefits. It is designed to improve the health of Nevada's children. It encourages:

- Healthy eating habits
- Increased consumption of fruits, vegetables and whole grains
- Right-size meal portions

Nevada Academic Content Standards supported by this resource:

Math: 4.MD.A.1

Language Arts: RI.3.1, RI.3.2,

RI.3.4, RI.3.5, RI.3.7, W.3.1b,

RI.4.1, RI.4.2, RI.4.4, RI.5.1, RI.5.2

Health: 1.5.1, 1.5.4, 5.5.1, 6.5.2, 7.5.2

Social Studies: E9.3.2, G8.3.2, G8.3.3, E9.4.2, E11.4.3, G6.4.4

Visit agclassroom.org and agri.nv.gov for more resources.



HEALTHY EATING, SMART LEARNING!

FRUITS



The USDA is an equal opportunity provider.

1 cup of Grape Juice = 1 cup Serving



TO GET THE MOST NUTRIENTS FROM FRUITS, IT SHOULD BE EATEN WHOLE RATHER THAN AS A JUICE. EVEN THOUGH IT'S EASIER TO DRINK A GLASS OF ORANGE JUICE THAN TO EAT AN ORANGE, YOU'LL BE MISSING OUT ON THE BENEFITS OF DIETARY FIBER AND OTHER NUTRIENTS.

HIGH FIBER DIETS MAY REDUCE THE RISK OF CERTAIN CANCERS, DIABETES, HEART DISEASE AND DIGESTIVE DISORDERS.

(Source: fsn.usda.gov/help)

THE NEW SCIENCE CLASS!

A fun way to learn about your food is to grow it!

A number of schools have started gardens or greenhouses for students to learn about food and science. The food you grow might even be served in the school cafeteria! Gardens grow food in small containers on your porch or in the house. Visit www.fns.usda.gov/school-gardening for resources on getting a school garden started. You can also participate in a community garden, grow a small garden at home, or even grow food in small containers on your porch or in the house. We asked Wendy Madson of the Healthy Communities Coalition to share her experience in helping schools start gardens.

"I stand in the area in which the students will begin to build their garden. They are a class of second graders who are having a hard time containing their enthusiasm. As the tools are distributed, the digging and the conversations begin. We make sure to let them know that the school garden belongs to every one of them, their very own to work and learn from, to produce and to consume. Students so gently placing them into the dirt, covering them with soil and alfalfa.

Months later a beautiful harvest! Tomatoes, "but I don't like tomatoes," "Just try it!" replies a classmate. Hesitant but willing, she places the cherry tomato into her mouth as we all watch with anticipation. She puts her hands on her hips and declares that clearly this tomato must have been the one she planted because it was "the best tomato ever made"! The kindergartners squeeze together tightly as their teacher carefully slices into the skin of a watermelon, revealing the juice inside the sweet produce of their hard work, and then eating what their hands had grown.

We were told by many in the beginning that some of the work would be too difficult for the younger students. Fortunately we didn't listen. From double digging, removing rock, laying alfalfa, planting, harvesting and tasting, many times working in gale force winds, freezing temperatures or scalding afternoons, the children have been excited to be a part of the garden that they call their own."

APPLE TASTE TEST

Collect a few varieties of apples to compare and complete the graph. Don't forget to ask an adult to help you safely slice the apples.

Use the following to describe the apples:

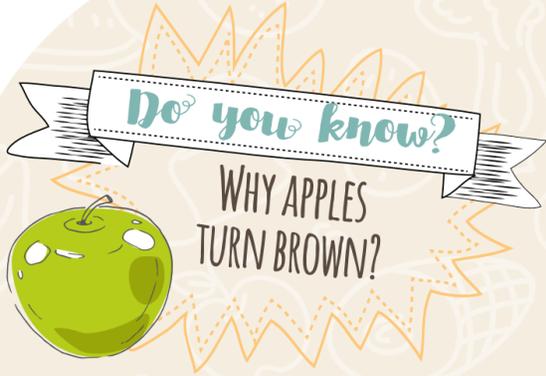
- Variety: Type of apple
- Shape: Round, oblong, oval
- Texture of Skin: Hard, smooth, waxy
- Color of Skin: Red, green, yellow
- Sound: Quiet/soft, loud/crunchy
- Taste: Sour, sweet, spicy, tart
- # of Seeds: How many seeds does the apple have?

Ranking: Rank the varieties from favorite to least favorite

Variety	Shape	Texture of Skin	Color of Skin	Sound	Taste	# of Seeds	Rank of Apple



WHICH APPLE WAS YOUR FAVORITE?



When you bite into an apple, set it down for a few minutes and then look at it again, what do you most often discover? Your apple has begun to turn brown. This happens with other foods too, but we most often notice it with apples. Have you ever wondered why this happens?

When fruit is cut an enzyme within the fruit reacts with oxygen in the air and other elements within the fruit turning it brown. This process is called oxidation. Oxidation in food can be slowed by not allowing oxygen to reach the cut surface of the food. Can you think of a way to slow oxidation?

You could leave the apple whole, but that makes it hard to eat! You could cook the apple, which destroys the enzyme, but maybe you don't want a cooked apple. The other option to prevent browning is to add an acid to the food to slow the oxidation process. Acids are naturally found in foods like lemon and other citrus.

EXPERIMENT:
Soak apple slices in a lemon bath
1 tablespoon lemon juice in 1 cup of water – to prevent them from turning brown!



NEVADA'S FAMOUS FRUIT

Churchill County is known for its high-quality and delicious melons, particularly the "Hearts of Gold" cantaloupe. First farmed in Nevada by O.J. Vannoy in 1911, farmers including Lattin Farms in Fallon still grow the sweet melons today. Compared with other cantaloupes, the Hearts of Gold melons have a shorter shelf life only lasting about three days once they are ripe. According to the Seed Savers Exchange, which tracks the seed source of many varieties of fruits and vegetables, the Hearts of Gold was first introduced in Michigan when a man named Roland Mill crossed the Osage melon with the Netted Gem melon to produce the new variety. He was granted a patent for the new seed variety in 1914. The melon is so popular that each September Fallon plays host to the annual Fallon Cantaloupe Festival, formerly called the "Hearts of Gold Cantaloupe Festival," the longest running food festival in the state celebrating the popular melon's harvest season.

AGRITOURISM LATTIN FARMS, FALLON

A few miles south of Highway 50 in Fallon, Lattin Farms now sits on 400 acres of countryside and has been home to the Lattin family farm for more than 100 years. Five generations have sown and harvested fruits and vegetables for sale and as time has passed and the region grew, so did their business. Today, along with growing a wide variety of fruits and vegetables, Lattin Farms also jars, preserves, and pickles various jams, jellies, and relishes for sale at the farm. The farm also boasts a bakery offering a variety of treats and breads made with locally grown ingredients. Lattin Farms products can be found on grocery store shelves in the region and for sale alongside the fresh produce Lattin Farms has for sale at many area farmer's markets.

An expanding focus of business for Lattin Farms in recent years also comes from agritourism, opening the gates of the farm and inviting the public to experience a taste of farm life, said Lattin Farms owner Rick Lattin. Visitors can pick their own apples, berries, pumpkins, and other produce, depending on the season. They can also tour the farm, ask questions of the people who work on the farm, ride a hay wagon, and find their way out of a corn maze.

In a state like Nevada where nearly every city or town relies in some part on tourists and visitors to support the local economy, it's no surprise that agritourism is growing in popularity. When Lattin Farms first built a corn maze in 1998 it was the only one in the state. Now there are five just within a two hour drive from Reno. More and more small farms are inviting the public to visit the farm and learn more about how food is grown.

"Most people live where their days are spent on concrete and asphalt and they have no idea what life on a farm is like. So to have the chance to pick your own berries or apples and create a connection with the land has become a very popular thing to do," Rick Lattin said. "Everybody eats and uses the products of farms, but many people have never seen where their food comes from."

Activity Time!

WORD SCRAMBLE

Using what you learned about Nevada's famous fruit. Unscramble the words below.

- LAOPCAUETN _____
- ERHAST FO OGD L _____
- VTIAERSE _____
- SBRETEEPM _____
- IHRUCHELL COUTNY _____
- SLMEON _____
- EDTINTE MGE _____
- EADSG _____
- ETLSFVAI _____
- AVRTESH _____

SCIENCE VOCABULARY

Enzyme: Protein molecules that react with other molecules to create a reaction.

Oxidization: an enzymatic reaction that causes some food to turn brown when exposed to oxygen.

pH level: a measure of acidity on a scale of 0 to 14; solutions below 7 are acidic, solutions above 7 are basic and solutions at 7 are neutral.

Acid: a substance below 7 on the pH scale and characterized by a sour taste; can be used as a preservative in food

WHAT IS YOUR FAVORITE FRUIT?

Explain in detail, providing at least three reasons why this is your favorite fruit.

- _____
- _____
- _____

Answers to word scramble
Cantaloupe, Hearts of Gold, Varieties,
September, Churchill County,
Melons, Netted Gem, Osage,
Festival, Harvest

CAREER CORNER

Jack Jacobs, Owner of Jacobs Family Berry Farm, Gardnerville, NV

Describe Jacob's Family Berry Farm and your job there.

Set on a 5 acre farm dating back to 1870, I decided to transition a 1 acre alfalfa field into a berry field. We planted almost 1,000 berry plants and today produce 6 varieties of blackberries, 2 varieties of black raspberries and 7 varieties of red raspberries. In addition to growing and harvesting the berries, we sell the berries to the public in a store on the farm. When the plants aren't producing berries, we spend our time freezing berries or using them to make jams, syrups, butters, pies and sauces to sell in our store year-round.

As the owner I oversee all aspects of the operation from growing, harvesting, marketing and selling. One of the challenges of berry farming is that you only have a few days to sell your product once it's been harvested. As a result we do aggressive marketing. We also do a lot of research. I work with the University of Nevada to conduct experiments on the varieties to see what grows well within the state and what people like.

How did you get into this line of work?

I was a civil engineer for many years and looked at farming as new challenge. I was very specialized in my former career, berry farming required a broader scope of understanding from planting, nurturing, harvesting, marketing, selling and running the business. I found the diversity exciting!

What is a typical day like for you?

My day depends on the season. I have a few employees and based on the growing season we'll be prepping, pruning, or harvesting. In our store we could be holding a taste testing to get customer feedback on the most desirable varieties or working on marketing our product.

What is your favorite part of your job?

I love that every day is different and fun! I'm always learning. As we get through one season, I'm adapting and prepping to make the next season even better. I really enjoy explaining how to grow berries!

What kind of preparation, training, or skills does it take to do this kind of work?

I didn't have any formal training, but along the way I've learned a few things. Most important is to find a mentor who can guide you. You also have to be passionate about farming. It's a challenging career and takes someone who can adapt, growing and learning with each season.



BERRY VARIETIES – THE SAME, BUT DIFFERENT!

It may just look like a raspberry to you, but that berry actually has a special name. Each type of berry variety is named for its unique qualities of color, taste and/or size. Next time you're at the store look for the berries with different names and see if you can figure out how they are different!

