1. **What is a cherry**
2. Cherries are members of the Rosaceae family and are distant cousins to peaches, plums, apricots and almonds.
3. The general definition of the cherry is the fruit of a number of plants of the genus Prunus.
4. The cherry is the fleshy “drupe” or stone fruit of these plants.
5. Sweet cherries (aka wild cherry)are members of the species ***Prunus avium***
6. Sour or tart cherries are members of the species ***Prunus cerasus***
7. The sweet and the sour varieties do not cross-pollinate. However, the sour cherry is thought to be a natural hybrid that developed in the Caucusus Mountains of Europe where the species *Prunus avium* (sweet cherries) and another smaller sour species *Prunus fruticosa* come into contact*.* The hybrid stabilized and interbred to create a new distinct species.
8. Sweet Cherries are larger than sour cherries. They tend to be heart shaped and range in color from golden red to purplish-black. Examples of sweet varieties include:
9. Bing
10. Rainier
11. Lambert
12. Tartarian
13. Royal Ann
14. Sour Cherries are normally too tart to eat raw, tend to be more globular in shape and have a softer flesh. Most are bright red to dark red in color. Examples include:
15. Early Richmond
16. Montmorency
17. Morello
18. **History of the Cherry**
19. Cherry consumption dates back to about 4000 BC.
20. It is one of the oldest cultivated fruits dating back to about 300 B.C.
21. Cherries were brought to America by ship with early settlers in the 1600’s.
22. Its name comes from the Greek and in Latin it means ***“of or for the birds”*** due to an obvious love that birds have of the fruit. (no doubt birds also had a role in spreading the seeds!)
23. The cherry tree was beloved by the Egyptians, Greeks and Romans both for its beautiful flowers and versatile fruit.
24. Of the 1000’s of varieties of Cherries grown in the US, only about 10 are grown commercially!
25. **Nutrition and Health Benefits**
26. Cherries are a good source of vitamin A which is essential for eye health. Beta carotene is also found in cherries and this compound can be changed into vitamin A when the body needs it. Beta carotene has been linked to lower risk of some cancers and cataracts.
27. Cherries are a good source of vitamin C. Vitamin C also has been linked to a reduced risk of certain cancers and is important in healing and immune function.
28. Cherries also provide potassium, magnesium and folate.
29. Like most fruit, cherries provide dietary fiber, both soluble (fleshy part of the fruit) and insoluble (skin of the cherry). Fiber helps with intestinal health.
30. A growing body of research is showing that cherry consumption may help relieve arthritis symptoms by reducing inflammation. Other inflammatory conditions may also be improved with cherry consumption but most research has centered around arthritis. It is believed that the antioxidant, ***Anthocyanin*** is responsible for this benefit. Anthocyanin is the pigment found in cherries and other fruits/vegetables that give them their distinct dark red color.
31. A recent study in the American Journal of Clinical Nutrition, found that tart cherries ranked 14in the top 50 foods for highest antioxidant content per serving. It surpassed red wine, prunes, dark chocolate and orange juice.
32. Cherries have been touted as “gout-healing” since the 1950’s but the evidence has been primarily anecdotal. A recent study that involved 633 patients who self-reported their gout symptoms did show benefits to cherry consumption. However, the study lacked a control group and other aspects that would make the results more reliable. Even still it is certainly worth a try for anyone who suffers from this painful condition!
33. Tart Cherries are one of only a few food sources of melatonin, a substance that is intricately involved in our circadian rhythms and sleep patterns.

**Circadian rhythm is our body’s 24-hour clock that regulates everything from sleep, hormone release, body temperature and other biological functions. It is not the same as biological clock. Circadian rhythm is the reason that some people just can’t adjust to working nights, and the reason that some people can only work night shifts.**

1. **Selection, storage & pitting**
2. Selecting cherries
3. Choose cherries with a firm and glossy skin free of blemishes.
4. They should feel hard and have a darker tinge.
5. The stems should be bright green indicating health and freshness.
6. Storing cherries
7. Room temperature limit to 2 days. Wash and dry before setting out so they are ready to go.
8. Refrigerate in plastic bag for 3-5 days. Do not wash before refrigerating.
9. If you have a lot of cherries, divide into smaller bags to prevent bruising.
10. Cherries will freeze well. Wash and thoroughly dry before doing so. You may wish to pit them. Place cherries in single layer on baking sheet that is lined with waxed, parchment or freezer paper. When completely frozen, place cherries in freezer bags and remove as much air as possible to avoid freezer burn.
11. Pitting cherries
12. Use a cherry pitter (probably the fastest and cleanest method but perhaps not something you want to invest in unless you use a lot of cherries)
13. Use a paper clip or bobby pin(please clean and sanitize first!). If you want to keep the stem intact, just insert paperclip from the bottom.
14. Use the “garlic mashing” method with a chef’s knife. This is okay if you aren’t concerned about how it looks when done!
15. **Does anyone have other ideas for pitting cherries?**
16. Cherries tend to go off color shortly after pitting. You may want to place the pitted cherries in a bowl of water with a little bit of lemon juice.
17. **Cooking**

A. If you choose to cook cherries for a sauce or topping, try to limit cooking time in order to maintain as much color and texture.

B. Cherries are a low acid food so if you are canning you must use a pressure method.

C. When using cherries in baked goods, you might notice a blue discoloration around the cherries in the finished product.

1. This is caused by a chemical reaction between the cherries and alkalines, like baking powder/soda in the product.

2. To prevent this, try substituting buttermilk or sour cream for the milk in the recipe or add an acidic liquid like lemon juice.

D. Generally speaking, the darker the cherry, the sweeter the flavor, although the yellow cherry varieties would be the exception to that rule.

E. Pure almond extract is a natural companion to cherries. ¼ teaspoon extract to a cherry mixture can really bring out the natural cherry flavors.

F. You can plump up dried cherries in the same manner you would raisins…cover with hot water and let stand about 30 minutes.

G.Black pepper complements cherry very well especially when paired with pork, beef and game meats. Dairy products also bring out the mild tart flavor of cherries, particularly sweet cream, ricotta cheese and mascarpone.

H. Frozen cherries can be substituted for fresh cherries in most recipes. If you are substituting canned cherries for fresh, you may need to drain and/or rinse off the syrup before proceeding.
• 1 pound fresh unpitted cherries = about 80 cherries
• 1 pound fresh unpitted cherries = 2-1/3 cups pitted
• 1 pound fresh unpitted cherries = 1-1/2 cups cherry juice
• 16 ounces canned cherries = 1-1/2 cups
• 21 ounces canned cherry filling = 1-1/2 cups
• 10 ounces frozen cherries = 1 cup
• 2 ounces dried cherries = 1/2 cup
• 1 cup fresh sweet cherries = 1 serving

1. **Fun Facts**

A. The US cherry industry produces more than 650 million pounds of tart and sweet cherries each year.

B. Washington, California, Oregon and Michigan are the primary sweet cherry producing states, accounting for more than 97% of the quantity produced nationally.

C. Michigan also grows about 75% of the tart cherry crop in the US. Utah, Wisconsin, Washington, New York, and Pennsylvania are also contributors.

D. Turkey is the number one producer of Cherries in the world. US is the second largest.

E. 2012 was a bad year for sour cherries. As the leading producer, Michigan experienced record high temps in the spring causing early budding, followed by an extended period of low temps. Much of the Michigan crop was lost! Wisconsin growers suffered the same fate.

F. In 1912, the people of Japan sent 2,000 cherry trees to the US as a gift of friendship. Disease killed most of these and another 3,000+ trees were sent. First Lady Taft and Viscountess Chinda, wife of the Japanese Ambassador planted the first two trees on the northern bank of the Tidal Basin. These two trees are still standing today! The remaining trees were planted by workman around the Tidal Basin, East Potomac Park and White House grounds.

G. Guinness World Record for competitive cherry pit-spitting is 93 feet-6 ½ inches!

H. The average sweet cherry tree will produce about 800 cherries in one season. There are about 7,000 cherries on an average tart cherry tree.

I. It takes about 250 cherries to make a cherry pie. Cherry pie filling is the number one pie filling sold in the US.

**Door County** is known for Cherry production in Wisconsin. It started in 1896 when two men began planting cherry trees on land stretching north of the city of Sturgeon Bay. One by one, new orchards were planted farther north up the peninsula by menu who had faith in Door County’s special “fitness” for growing this fruit. By 1906 the bountiful cherry crops received national attention and a number of large corporations started planting hundreds of acres, the first of which was Sturgeon Bay Orchard & nursery Company. In 1917 it took around 230 railroad cars to haul the harvest to markets! By the time the Door County cherry industry had expanded to over 10,000 acres, it became a challenge to maintain a large enough work force, thus the UW Agricultural Engineering Department developed a mechanical cherry harvester!

1. **Activities**
	* 1. Demonstrate different ways to pit a cherry.
		2. Sample dried cherries and explain different ways to use them.