

Flow chart Completion Skill Building Exercise 2

A Brief (and Tasty) History of Chocolate

The first records that chronicle the manufacture and consumption of chocolate originate from about 200-950 A.D., during the Classic Period of Mayan culture. Glyphs and ancient Vessels provide the first evidence that the *Theobroma cacao* a tree that grows in the tropical rainforest - was harvested for its cacao seeds. The Mayan culture was spread over vast Mesoamerican territory, covering what is now southern Mexico, Belize, Guatemala, Honduras, and part of El Salvador.

Not only were cacao trees harvested in the wild, but Mayans also grew the trees near their homes, in their own backyard gardens. After the cacao pods were picked, the seeds found inside were fermented and dried. The seeds would then be roasted over a fire, followed by grinding between two large stones. The resulting paste was mixed with water, chilli peppers, cornmeal and other ingredients. This final concoction made the cacao paste *Xocolatl* a spicy, frothy, and rather bitter drink. With sugar unknown to the Mayans, if chocolate were sweetened at all, the sweetener would have been honey or flower nectar.

The Mayan culture reached its zenith during the Classic period, followed by centuries of decline. By 1400, the Aztec empire dominated much of the Mesoamerican landscape. The Aztecs not only adopted the cacao seeds as a dietary staple but also as a form of currency. (Cacao seeds were used to pay for items, and also given as tribute by conquered peoples. While in the Mayan culture many people could drink chocolate, at least occasionally, in Aztec culture the chocolate was reserved mostly for royalty, priests, and upper echelons of society. The priests would also present cacao seeds as offerings to the gods, serving chocolate drinks during sacred ceremonies, one reason for our calling chocolate the 'elixir of the gods'.

During the conquest of Mexico by the Spaniards in 1521, Europe became aware of chocolate for the first time. Spaniards had observed the Aztec royalty and priesthood making and drinking the dark concoction, and quickly came to like it as well. Cacao seeds were shipped back to Spain in bulk, where the paste was mixed with spices like cinnamon and sugar, thus taking the edge off their bitterness. An expensive import, only the Spanish elite could afford to purchase chocolate, and for the next 300 years, chocolate was treated as a status symbol. Spain continued to import and manufacture its chocolate in secret for at least a hundred years before the rest of Europe caught wind of the delicious brew. Once out, chocolate became one of the greatest fads to hit the continent.

Production of both cacao beans and sugar were labour-intensive and time-consuming processes. To keep up with demand for both items, many European countries set plantations in the New World for the cultivation of these two crops. Wage labourers and slaves were used to grow the crops, then process them, for export to and sale in Europe.

It was not until the 1800s that mechanisation speeded up the process of chocolate-making making chocolate cheaper, more plentiful, and thus available to the public at large. With the advent of the steam engine, cacao beans could be ground automatically. Bakers and cheese seized the opportunity to work with this suddenly available medium, establishing shops to the exclusive manufacture of chocolate, especially in countries like Belgium, Switzerland, Germany, and France. Lindt & Sprungli, of Switzerland, showed up in 1845, and Neuhaus Master Chocolate Makers, of Belgium, in 1857.

Different chocolate manufacturing processes were also invented along the way. One of the three biggest processes to change the way in which chocolate was made and consumed was the addition of milk, instead

of water, to chocolate. This idea, credited to Sir Hans Sloane, further reduced cacao bitterness and improved taste. Sir Sloane kept his discovery trade secret for some time before selling the recipe to a London apothecary (which later on became the property of the Cadbury brothers). Condensed and powdered milk eventually replaced whole milk, allowing for a smoother and far sweeter product than before; milk chocolate is by far the most popular chocolate item in America today.

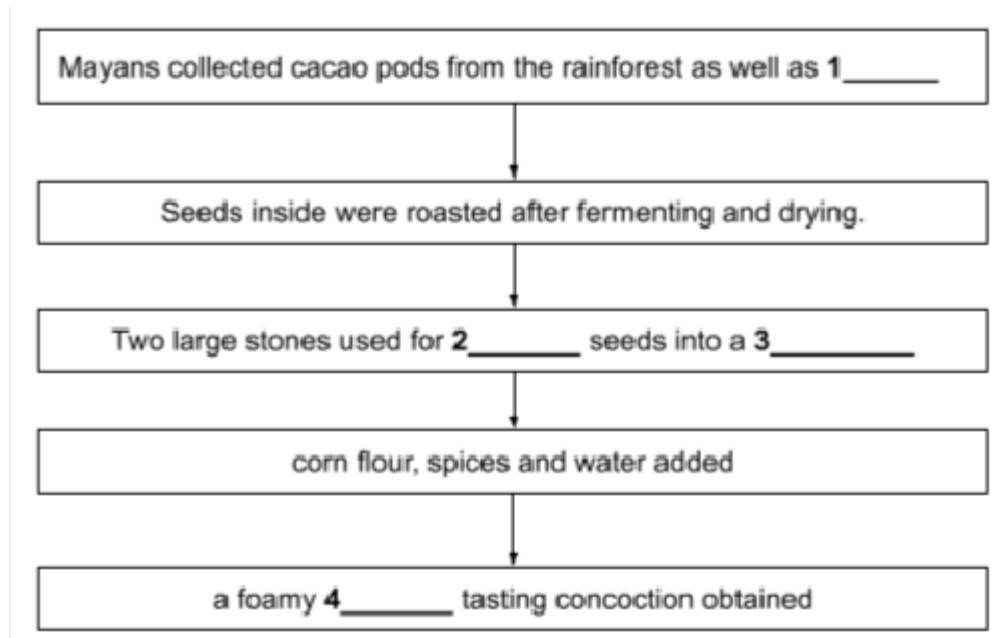
Another improvement in manufacturing came with the making of liquid chocolate into semi-solid edible bars, allowing the item to become much more portable and not as perishable (solid chocolate has a shelf-life of about a year). The secret to bar-making comes from cacao butter, the fatty part of the cacao bean. When the bean is ground up, about 55% of the resulting paste is cacao butter. This fat percentage, though seemingly high, is still too low to make soft (and edible) bar chocolate, yet way too high for powdered chocolate (such as is used to make hot chocolate). Heavy-duty presses are used to remove about half of the cacao butter from the paste, after which the purified butter is added into "untouched" raw paste, making bar chocolate that is about 75% cacao butter, and semi-solid at room temperature. The stripped paste, devoid of about half of its fat content, solidifies into a hard cake that is pulverised into cacao powder.

A third, and major, improvement in chocolate manufacturing came with the discovery of the conching method - the mixing of chocolate over a period of several days in order to allow volatiles and moisture to evaporate, resulting in a more pleasing, smoother taste to the final product. Conching is credited to Rudolph Lindt (of Lindt & Sprungli fame), who found out that a batch of chocolate left mixing for several days became much smoother in texture and taste than allowed to solidify immediately.

Despite modern improvements to the processing of chocolate, the actual harvesting of the cacao bean has remained virtually unchanged since the days of the Mayans and Aztecs and is still cultivated in tropical climates, within 10 to 20 degrees of the Equator.

Questions 1 – 4. Complete the flow chart below. Choose NO MORE THAN TWO WORDS from the passage for each answer.

Harvesting and Consumption of Cacao in Mayan Culture



Answer Key: 1.backyard gardens 2.grinding 3.paste 4.bitter