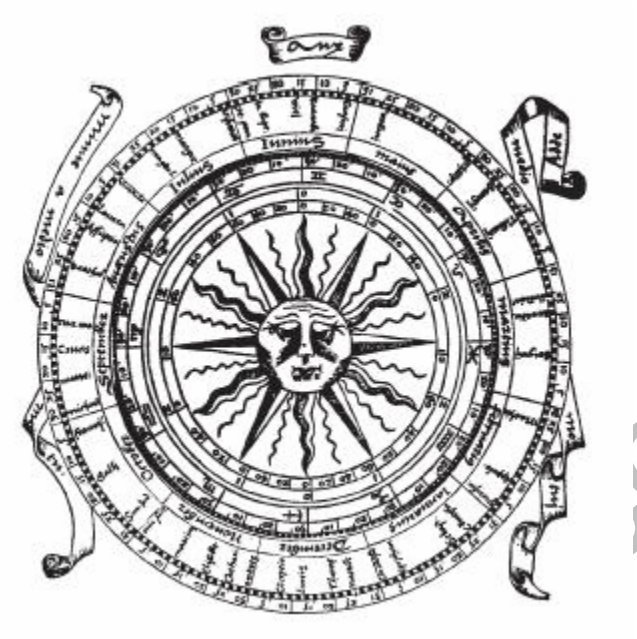
How was the Calendar Started?



An early Roman calendar. (Corbis-Bettmann)

In the beginning of civilization, when man observed the sun rising and setting, he felt the occurrence of the day and night. The idea of the month might have occurred to him with the observation of the phases of the moon. And probably the change in the seasons gave birth to the idea of the year and the beginning of a calendar. Finally, with the development of science, man came to know things more correctly. He defined the period of revolution of the earth round the sun as one year. The time taken by the moon in completing one revolution round. the earth was called a month and the time taken by the earth to complete one rotation on its axis was called a day.

In the initial calendars of Egypt, one year used to have 1 2 months, with one month having 30 days. The extra days were added to the year in the end to make it exactly equal to 365 days. The people of Greece used the lunar calendar according to which an additional period or three months used to be added to every eighth years. In the year 432 B.C. the astronomer Meton found out that 235 lunar months exactly fit into 19 years.

The first major step in the direction of the development of calendars was taken by the Roman ruler Julius Caesar in 46 B.C. He took Greek astronomer Sosigenes' help in this work. This calendar was based on the time taken by the earth in completing one revolution round the sun. This was named as the solar calendar. The earth completes one revolution round the sun in $365^{1/4}$ days, hence this period was taken as one year.

The extra quarter of a day caused confusion, so Caesar ordered that the year 46 B.C. should have 445 days to catch up. The astronomers of Caesar defined a year as consisting of 365 days and every fourth year consisted of 366 days so that one-fourth of a day left out every year was compensated in the fourth year. This fourth year was called the 'leap year'. Any year divisible by the number 4' was taken to be a leap year. 365 days of a year were divided into twelve months. The months January, March, May, July, August, October and December consisted of 31 days each, while April, June, September and November consisted of 30 days each. The month February was taken to consist of 28 days, whereas, in the leap year, it would have 29 days. This calendar continued for 1600 years. However, later on, a mistake of 10 days was detected in these calculations, because the earth actually takes 365.2422 days to complete one revolution of the, sun. As such, it was natural that a difference of 7.8 days should have taken place over a period of 1000 years. In the year: 1582, Gregory made a decision to drop ten days of the year 1582. And for the future accuracy he ordered that leap year should be skipped in the last year of every century unless it was divisible by 400. So 1700, 1800 and 1900 were not leap years, but the year' 2000 will be a leap year having February of 29 days. This is called the Gregorian calendar and is in use all over the world.

The second calendar in use is the lunar calendar which is based on the movement of the moon. Since the moon takes $29^{1/2}$ days to complete one revolution of the earth, it takes 354 days (291/2 X 12) for twelve such revolutions. As such the lunar year, consisting of 354 days, is less than the solar year by 11 days. This way a difference of 33 days occurs in every three years. This difference is removed by making every third lunar year consisting of 13 months. This additional one month is called 'Malmas' in Hindi.

In addition to these two calendars, some countries have other kinds of calendars also, which are used for the religious purposes of those countries.

You have already read while making the calendar, the 365 days of a year were divided into 12 months. These months have been named as January, February, March, April, May, June, July, August, September, October, November and December. Do you know how they got these names?

January is the first month of the year. It's name originated from Janus' the name of a Roman god. The Romans think that this God has two faces—one for seeing into the past and the other into the future.

February is named after the Roman festival Februo.

Mars was the warrior god of the Romans. March is named after him.

April is probably derived from the Latin word aperire which means ‘to open’. Since the spring season falls in this month and there is blossoming in trees and plants, this month has been named April.

The word May is derived from the Roman Goddess Maia’s name.

The origin of June is not definitely known but probably this has been’ derived from the name of Juno—the Queen of heavens.

July is named after Julius Caesar, who was born in this month. He was the first man who made big contributions to the development of the modern calendar.

August is named after king Augustus of Rome who had won many battles in this month.

September finds its Origin in the Latin word ‘Septem’ meaning ‘seventh’. This was the seventh month in the old Roman calendar.

October comes out of the Roman word ‘octo’ meaning eight. In the old Roman calendar this was the eighth month.

November originates from the Latin word ‘Novem’, meaning nine. This was the ninth month in the old Roman calendar.

December is derived from the Latin word ‘Decem’, meaning tenth. This was the tenth month in the old Roman calendar.