



LEAP YEAR!



February 29th only comes around once every four years! This makes it a special, if a little oddball, day in the calendar. The story of Leap Year is an odyssey of different time systems and traditions spanning thousands of years. Join the DEIB office as we explore the origins and reasoning behind this quirky date!

WHY DO WE HAVE LEAP YEAR?

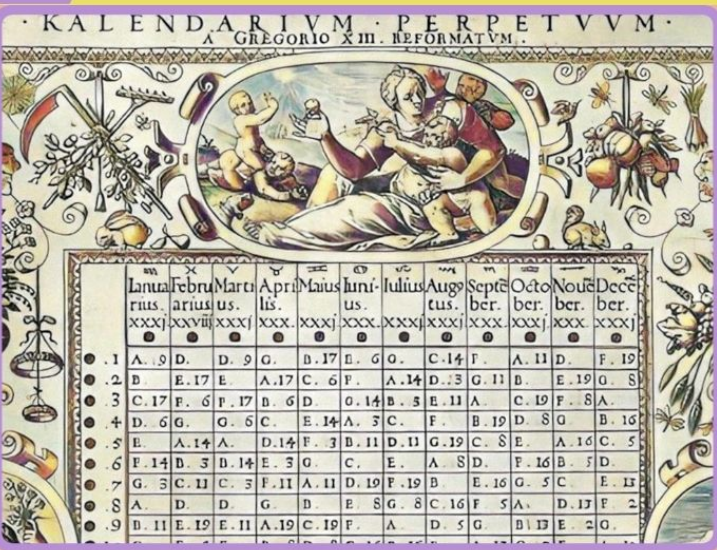
Also known as a bissextile, or intercalary year, exists to account for astronomical events not having consistent repetition for a whole number of days. Without a Leap Year, slowly, over time, seasons would fall out of sync with calendar dates.

A TALE OF TWO CALENDARS

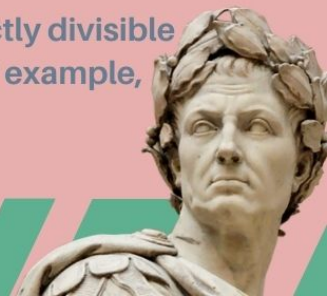
In 45 BC, Julius Caesar changed the **Roman Calendar** into what would be known as the **Julian Calendar**. Before, the Roman Calendar would add entire intercalary months to keep a consistent passage of time. The Julian calendar did away with this, adding a 366th day every four years.

THE GREGORIAN CALENDAR

In 1528 AD, Pope Gregory XIII implemented the **Gregorian Calendar**. This new time keeping method was established to fix minor errors in the Julian Calendar and is now the most widely used calendar across the world, including the United States. Caesar incorrectly calculated that the solar year was 365.25 days. This was causing a gradual time drift, sending the Spring Equinox further and further away from its March 21st date. The new calendar compensated by using a modified equation. The Julian Calendar is currently thirteen days behind the Gregorian Calendar.



“Every year that is exactly divisible by four is a leap year, except for years that are exactly divisible by 100, but these centurial years are leap years if they are exactly divisible by 400. For example, the years 1700, 1800, and 1900 are not leap years, but the year 2000 is.”
— United States Naval Observatory”



5784-5785

THE JEWISH CALENDAR

The Jewish calendar is the oldest extant calendar in the world. It averages 355 days a year, adding a whole month during Leap Years!

1445-1446

THE ISLAMIC CALENDAR

Traditionally, days on the Islamic Calendar begin at sunset and end on the following sunset. In the Tabular Variant, Leap Years have a 30 year cycle; 11 years of 355 days & 19 years of 354 days.

4722-4515

THE CHINESE CALENDAR

Early iterations of the Chinese Lunar Calendar were tied to Natural Phenomena, such as the apricot harvest or blossoming of lotuses. Modern calendars handle Leap Year by adding one extra month every three years.

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THE MESOAMERICAN CALENDARS

Most Mesoamerican calendars did not survive colonialism. Some followed a 365 day outline; 18 months, 20 days each. 'Nemontemi', or 'Five Unlucky Days', refer to the extra days at the end of the year devoted to no Gods. People would try to be extra cautious during this time and do as little as possible.



CALENDARS OF THE WORLD



2974

THE BERBER CALENDAR

From North Africa, the Berber Calendar is derived from the Julian Calendar. It's primarily used to keep track of agricultural seasons. Their Leap Year adds an extra day onto the end of the year rather than in February.

Reiwa 6

THE JAPANESE CALENDAR

Japan handles Leap Year much in the same way the Gregorian Calendar does. Seasons work a bit different. While the four main ones exist broadly, they are further subdivided into 24 micro seasons that emphasize change.

1386

THE BURMESE CALENDAR

The Burmese Calendar incorporates two days simultaneously. There is the Astronomical day that spans from midnight to midnight, and then there is the Civil Day. The Civil Day is split into two halves; the first half beginning at sunrise, the second half beginning at sunset.

12024

THE HOLOCENE CALENDAR

This calendar is a newer invention, aiming to establish a point of reference more broadly universal; the Neolithic Revolution, or when humans moved from a hunter/gatherer society to an agricultural one. You can determine the Holocene year by adding ten thousand to the current year.

What happens if your birthday falls on February 29th?

People born on the 29th are colloquially referred to as 'Leapers' or 'Leaplings'. While the notion of saying a 24 year old is only 6 because they were born on the 29th may be amusing, in reality most countries dictate the birthday falling on either Feb 28th or March 1st in 'common' years. Sorry, not very exciting, we know.

LEAP YEAR FOLK TRADITIONS

Across Ireland and the United Kingdom it has been traditionally said that during leap year women are allowed to propose a marriage rather than men. In 1288, Queen Margaret of Scotland, then five years old, decreed that men refusing a woman's proposal on Leap Year Day were required to pay a fine; One pair of leather gloves, a single rose, a kiss, and one dollar. A similar tradition in old Finland requires a man to pay a woman in nice fabrics for a skirt in recompense for a rejection. In Greece, it is considered unlucky to wed in Leap Year. 1 in 5 couples will avoid getting married during a Leap Year.



A newspaper comic strip from the 1908 edition of 'La Bougie du Sapeur' (The Sapper's Candle), a French satirical magazine that is only printed on February 29th. The panel depicts a woman arming herself with all sorts of weapons, vowing to force the man of her desires to marry her.

The Leap Second: We're all familiar with the Leap Year, but are you familiar with the Leap Second? The 'Atomic Clock' is Earth's absolute reference point for time, which monitors the resonant frequency of atoms. Even so, it still falls out of line with Earth's astronomical position from time to time. To compensate, every so often the year is inflated by one second longer than usual. The next Leap Second is December 31st, so save the date!