Leap years

A leap year occurs every four years. A leap year is any year when the year number divides exactly by four. The year 2000 was a leap year but, strangely, the year 1900 was not. There is an explanation.

In a leap year February has 29 days instead of the usual 28 and, consequently, the year lasts 366 days instead of the common 365. The Earth does not travel right around the sun in an exact number of full days. It takes about 365 and a quarter days (365.25). A calendar that had the same number of days in each year would, over time, not line up with the seasons. By occasionally inserting an additional day into the year, the drift can be corrected. A year that is not a leap year is called a common year.

A problem arises because the Earth's rotation is not exactly 365 full days and a quarter. Three days are lost in every 400 years. So over a millennium (1000 years) an adjustment has to be made. It is done by declaring that the century years must be divisible by 400. 1900 is not divisible by 400 evenly. Therefore 1900 was not a leap year.

A person born on 29 February may be called a leapling or a leaper. In common years they usually celebrate their birthdays on 28 February or 1 March. For legal purposes, their birthdays depend on how the law in their country counts time intervals.

There are many examples of plots in literature where a person's claim to be only a quarter of their actual age turns out to be based on counting their leap-year birthdays. Such a ploy is used in the plot of Gilbert and Sullivan's operetta *The Pirates of Penzance* (1879).

The superhero Superman was born on 29 February. The author chose this date as a way to keep the character young, as well as to account for the differences between years on Earth and Superman's birth planet Krypton.

In English-speaking countries, it is a tradition that women may propose marriage only in leap years. Because men felt that put them at great risk, the tradition was in some places tightened to restricting proposals to the day of 29 February.