

THE CALENDAR.

A calendar is a system for organising time based on groups of days, weeks and months. **There is not one unifying calendar used throughout the world.** Different cultures have their own calendars. The Muslim, Jewish, Hindu and Chinese calendars are all different to the one we use in the Western world

- Chinese Calendar: 4703
- Tibetan Calendar: 2132
- Muslim Calendar: 1383
- Jewish Calendar: 5766.
 - Hindu Calendar: 2059.

That is not the only difference between calendars. **Different astronomical phenomena have been used since ancient times for measuring time** and indeed we still use these phenomena. For example, the passing of day into night was probably one of the first references that our early ancestors used. The cycles of the lunar phases or the passing of the seasons are also astronomical references which allow us to measure the passing of time.

Our calendar, called Gregorian calendar, is a solar calendar. We use a 365 days long year, the time the Earth takes to complete a full journey around the Sun. However, the **Muslim calendar** is a lunar calendar. The passing of time is calculated exclusively on lunar phases. In the Muslim calendar there six months with 29 days and six months with 30 days. Remember that the movement of the Moon around the Earth lasts 29,5 days. There are 354 days in a Muslim year and it's 11 days shorter than the solar year. Due to this difference the calendar is not in sequence with the season.

Gregorian calendar, is a solar calendar that comes from the Roman calendar. **Romans had ten months:** martius (31 days), aprilis (30), maius (31), junius (30), quintilis (31), sextilis (30), september (30), october (31), november (30) y december (30). The first five months were dedicated to gods: Mars, Apolo, Jupiter (Maius) y Juno. The last five months were named with an ordinal.

This calendar was too short: it had only 304 days. So **Romans introduced two new months:** January (dedicated to Jano) and February (dedicated to Pluto or Februus). In this way twelve months appeared. Later on, some names changed: a month dedicated to the emperor Julius Caesar and other dedicated to Augustus Caesar.

At the time of Julio Caesar the 365 days year was settled down with a leap year every four years. The years when there are 366 days are known as leap years and in those years February has 29 days.

That will be right if a solar year lasted 365,25 but it really lasts 365,2422 days. It seems to be a very short difference but it's important for long periods of time. Julian calendar was settled in 45 b.C. and in the Middle Age the imbalance was 13 days. **In 1582, Pope Gregory XIII** ordered that the following day to the 4 of October was 15 of October, to correct an error of 0,0078009 días/año (13 days accumulated during 1622 years). Gregorian calendar sets:

- leap years are those years whose number is multiple of four,
- but if the number ends in two zeros it's not a leap year
- except if the remaining two numbers are multiple of four.

The calendar we use in the Western world **seems good but it has some problems**. Do you know in what day of the week will be your next birthday? Will Christmas day be on weekend? Is there a “puente de Andalucía”? What day of the week will be “Virgen de los Remedios”? And so on. You don't know because every year is different. You need to look at the calendar all the time.

We can solve this problem this way: imagine a **13 months year and months of 28 days**. If January the 1st is Monday, which day is February the 1st? And March the 1st? And September the 1st of 2134? If Christmas were Thursday the 25th of December, it would be Thursday every year. And you would know every 25th would be Thursday.

EVERLASTING CALENDAR

JANUARY

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

FEBRUARY

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

APRIL

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MAY

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

JUNE

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

JULY

1	2	3	4	5	6	7
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15	16	17	18	19	20	21
22	23	24	25	26	27	28

AUGUST

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

SEPTEMBER

1	2	3	4	5	6	7
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22	23	24	25	26	27	28

OCTOBER

1	2	3	4	5	6	7
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22	23	24	25	26	27	28

NOVEMBER

1	2	3	4	5	6	7
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15	16	17	18	19	20	21
22	23	24	25	26	27	28

DECEMBER

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

NEW MONTH

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28