

# Calendar Count

## NOVA Activity | Lost King of the Maya



If someone asks you when your birth date was, you probably answer them by giving a month, day, and year. But that's not the only way to record passing time. Different cultures have used different calendar systems to mark time. One such system used by the Maya culture is called the Maya Long Count. In this activity, you'll figure out your birth date in Maya Long Count.

### Part I

Most people today measure time in days, months, years, decades, and centuries, based on what's known as the Gregorian calendar system. The ancient Maya measured time in kins, uinals, katuns, and baktuns based on the Maya Long Count system. The numbers add up to the number of days since the beginning of the Maya Fourth Creation (which is calculated as August 13, 3114 B.C.E., on the Gregorian calendar used today).

### Procedure

- ① Your first task is to convert a Maya Long Count date into days. In Maya Long Count, the date December 31, 1979 is recorded as **12.18.6.9.14**
- ② Use the *Maya Long Count Conversions* chart below to convert each Long Count place value in the date above to days and then add up all five values to calculate the total number of days. Write your answer below.

**Days from the beginning of the Maya Fourth Creation to December 31, 1979 = \_\_\_\_\_**

### Maya Long Count Conversions

Maya Long Count dates are written as a series of numbers separated by periods.

\_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_  
 baktun    katun    tun    uinal    kin

**baktun = 144,000 days**  
**katun = 7,200 days**  
**tun = 360 days**  
**uinal = 20 days**  
**kin = 1 day**

### Part II

#### Procedure

- ① Now, using the *Days in Each Month/Year* chart below, calculate how many days there are from January 1, 1980, to the day you were born. Note that leap years have an extra day in February.

### Your Birth Date \_\_\_\_\_

**Days from January 1, 1980,  
to your birth date = \_\_\_\_\_**

#### Days in Each Month/Year

(Leap years are noted in **bold**.)

Days in month	Days in year
January = 31	<b>1980 = 366</b>
February = 28/29	1981 = 365
March = 31	1982 = 365
April = 30	1983 = 365
May = 31	<b>1984 = 366</b>
June = 30	1985 = 365
July = 31	1986 = 365
August = 31	1987 = 365
September = 30	<b>1988 = 366</b>
October = 31	1989 = 365
November = 30	1990 = 365
December = 31	

### Part III

#### Procedure

- ① Add the number of days from the beginning of the Maya Fourth Creation to December 31, 1979, and the number of days from January 1, 1980, to your birth date. Write the total in below.

**Days from the beginning of the Maya Fourth Creation to your birth date = \_\_\_\_\_**

- ② Now it's time to convert the number of days since the Maya Fourth Creation to your birth date back into Maya Long Count. Use the *Maya Long Count Conversions* chart to turn the number of days into Long Count. Write the conversions in below.

\_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_ . \_\_\_\_\_  
 baktun    katun    tun    uinal    kin

- ③ Congratulations! Now when somebody asks you when you were born, you can say "Do you want to know by the Gregorian calendar or Maya Long Count?"

