

Calendar Mysteries

1) Track your birthdays.

Make a chart to show what day of the week your birthday has been on during each year of your life. Indicate leap years. Remember that leap years affect your birthday differently depending on whether your birthday is before leap day (February 29) or after. Here's how my chart would start out:

March 8, 1944	Wednesday	a leap year
March 8, 1945	Thursday	
March 8, 1946	Friday	
March 8, 1947	Saturday	
March 8, 1948	Monday	a leap year

2) Can you memorize how many days each month has? Can you memorize how many days are in a year?

3) *Why* doesn't our birthday stay on the same day of the week, year after year?

4) There are many types of calendars. Can you do some research and report (in your own words) about a calendar different from our own? Examples: the Chinese calendar, the Islamic calendar, the Hindu calendars, the Baha'i calendar, the Jewish calendar.

5) How did human beings first learn how many days are in a year?

6) *Why* do we have leap years? What would happen if we didn't?

7) This question is inspired by Nancy's birthday song choices on Fridays! Could a child go to PFS from first through eighth grade and never have their real birthday fall on a Friday? (I'm talking about a child with a birthday other than February 29.) How long could a person go without having their birthday land on a Friday? Explain clearly and give a chart to show how it would work.

8) I was born on March 8 in the year 1944, a leap year. Growing up I had a friend named Louis, who was eight days older than me—he was born on February 29, 1944. Louis was often teased by other kids; they said he was still a baby because he hadn't had many birthdays. For example, in 1956, the year I turned twelve, kids told Louis he was only three years old, because he'd only had three birthdays since he was born. Was Louis really three years old in 1956? Explain!

9) According to the Oxford English Dictionary, the words *month* and *moon* are related. Can you explain how a calendar month is related to the moon?

10) On Tuesday, September 20, 1519, Ferdinand Magellan left Spain with five ships in an attempt to sail around the world. His fleet sailed west through the Atlantic, rounded the southern part of South America (through the strait now named *Magellan*) and entered the Ocean to which he gave the name *Pacific*. Magellan died in battle in the Philippines, but the expedition continued westward around the world past India and Africa. After many misadventures, just one ship, with eighteen sick and starving men aboard, returned to Spain on Sunday, September 7, 1522, after a round-the-world journey of almost three years. But wait! An Italian member of the expedition, Antonio Pigafetta, had kept a daily journal of the voyage. Both his journal and the ship's log said it was September 6! Explain that missing day!

Have fun!