GREAT INVENTIONS

THE CALENDAR

As I was checking the calendar today, I saw that I had written down that I have an exam in two weeks. Given the initial anguish, thinking I didn't have time to study, I tried to imagine how people measured time long ago. So, even though I should have been studying, I decided to spend a little time finding the answer on the internet. I couldn't believe what I was reading, and I was having so much fun learning that the hours flew by. If you want to know what I found, keep on reading.

Calendars were first invented so people would know when it was time to plant and to harvest crops. It also helped them to have an idea of when the various seasons were beginning. All ancient civilizations have calendars like the circular one on the left. The first calendars were based on the lunar cycles; our modern calendar is based on the time that it takes for the earth to circle the sun on its orbit.

Our calendar has its origin with the Roman Empire. Most of the names of the months are in honor of the gods they worshiped.
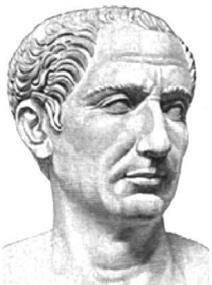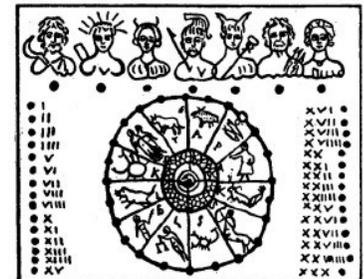
Julius Caesar

In the year 45 B.C., Roman emperor Julius Caesar commissioned astronomer Sosigenes of Alexandria to create their calendar; it is known as Julian calendar. To make the calendar, the astronomer had to calculate how long a year lasted. He calculated that it lasted 365 days and six hours. This calculation was surprisingly accurate for the time because we know today that one year lasts 365 days, 5 hours, 48 minutes, and 46 seconds. Incredible, but true.

1.

Every four years, the additional six hours that Sosigenes calculated add up to 24 hours. It was decided that one additional day would be added every four years called a leap year. The month of February originally had 30 days, but now has 28. This change happened because Julius Caesar added a day to July, the month he was born, and Caesar Augustus did the same with August. Both days were subtracted from February. It was decided that the extra day needed every four years would be added to February, giving February 29 days on a leap year.
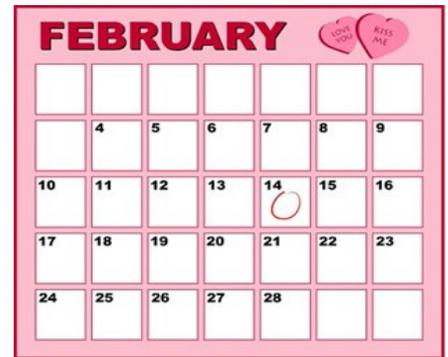
In 1582, Pope Gregory XIII commissioned Lilius, also written as Lilio, and a Jesuit German Christopher Clavius, to reform the Gregorian calendar. After a few more adjustments, it is the solar calendar that we use to this day.

In China, around 2637 B.C., the twelve-year calendar was introduced. This calendar is governed by twelve distinct animals that change every year: The Rat, The Ox, The Tiger, The Rabbit, The Dragon, The Snake, The Horse, The Goat, The Monkey, The Rooster, The Dog, and the Pig.
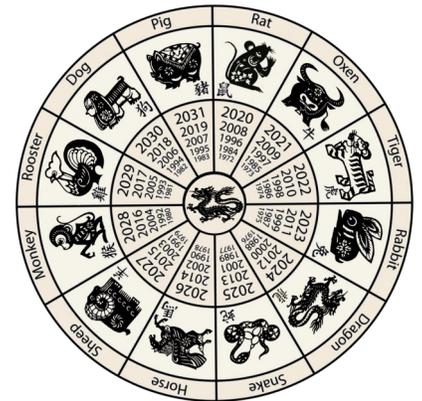
Here's a challenge, which animal of the Chinese calendar falls this year? If you don't know, ask someone, or research it.

Stonehenge

Name_____   Date_____

THE CALENDAR

Answer the questions.

1. When do I have my exam?
   - a. in seven days
   - b. in ten days
   - c. in fourteen days
   - d. in twenty days

2. What were the first calendars based on?
   - a. Solar
   - b. Lunar
   - c. Romans
   - d. Orbital

3. Our modern calendar based on_____.
   - a. the Chinese calendar
   - b. Caesar Augustus
   - c. my exam
   - d. the Earth's orbit

4. Most of the names of months are __.
   - a. gods
   - b. animals
   - c. Romans
   - d. foods

5. Who commissioned Sosigenes to develop the calendar?
   - a. Julius Caesar
   - b. César Augusto
   - c. Pope Gregory XIII
   - d. Lilio

6. How long is a year?
   - a. 365 days, 6 hours, 46 min, 48 sec
   - b. 365 days, 5 hours, 48 min, 46 sec
   - c. 365 days, 7 hours, 46 min, 48 sec
   - d. 365 days, 6 hours

7. What is the name of the year when February has 29 days?
   - a. Julian Year
   - b. Gregorian Year
   - c. Leap year
   - d. Year B.C.

8. Who developed the calendar we use today?
   - a. Julius Caesar
   - b. Caesar Augustus
   - c. Lilio
   - d. Pope Gregory XIII

9. The Chinese calendar has _____.
   - a. the names of 14 animals
   - b. months of 12 animals
   - c. five 12 year cycles
   - d. a year of the bear

10. Why is February only 28 days?

   _____
   _____
   _____