



When Astronomy Writes the Calendar

Read the passage and answer the questions. (CEFR B1–B2)

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1 Most national holidays are tied to a historical event or a fixed date chosen by lawmakers. Japan's Vernal Equinox Day is different: the law simply names an astronomical event and leaves the date to science. Every February, the National Astronomical Observatory publishes the following year's equinox in the Official Gazette, and only then does the holiday become official.



2 The reason is that the solar year does not fit neatly into our calendar. Earth takes almost six hours longer than 365 days to orbit the Sun, so the equinox drifts later each year until a leap day pulls it back. In 2026, the equinox fell just 14 minutes before midnight, a reminder of how thin the line can be. Without these careful calculations, no publisher could print next year's calendar with confidence.

3 This astronomical date even appears in other laws. Japan's Coast Act uses the high and low tides on Vernal Equinox Day as the standard for marking protected coastal zones. It is a small but striking example of a modern state borrowing its measurements directly from the sky. Ancient farmers watched the Sun to plan their year, and in a quiet way, Japan still does.

Comprehension

1. What is the main idea of the passage?

- (A) Japan's Vernal Equinox Day is decided by lawmakers every year. (B) Japan uses astronomy to set both a national holiday and some legal measurements.
- (C) Ancient farmers in Japan created the first calendar. (D) Leap days were invented to protect Japan's coasts.

2. When does the date of Vernal Equinox Day become official?

- (A) On January 1 of the same year (B) Ten years before the holiday
- (C) On the morning of the equinox (D) When the National Astronomical Observatory publishes it in the Official Gazette every February

3. According to the passage, why does the equinox drift later each year?

- (A) Earth takes almost six hours longer than 365 days to orbit the Sun. (B) The Moon pulls the Earth away from the Sun.
- (C) Lawmakers change the calendar every year. (D) Publishers print calendars too early.

4. What can we infer from the sentence "In 2026, the equinox fell just 14 minutes before midnight"?

- (A) The holiday in 2026 was canceled. (B) The equinox always happens just before midnight.
- (C) If the equinox had come a little later, the holiday would have been on a different date. (D) Scientists made a mistake in their calculation.

5. In paragraph 3, the word "striking" in "a small but striking example" is closest in meaning to

- (A) violent (B) boring
- (C) very noticeable and interesting (D) difficult to understand

6. Why does the writer mention ancient farmers in the last sentence?

- (A) To show that Japan still has many farmers today. (B) To connect Japan's modern use of the equinox with an old human habit of watching the Sun.
- (C) To explain how botamochi is made. (D) To argue that the calendar should be decided by farmers.



Vocabulary, Paraphrase & Summary

Match the words with the definitions. Then rewrite and summarize.

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|-----------------|---|
| 1. astronomical | a. near the coast or on the land next to the sea |
| 2. lawmaker | b. connected with the Sun, the Moon, the stars, and the planets |
| 3. publish | c. a person who helps to make the laws of a country |
| 4. orbit | d. to make information available to the public, often in print |
| 5. drift | e. to travel around a planet or star in a curved path |
| 6. reminder | f. to move slowly away from a place or position |
| 7. confidence | g. something that makes you remember or notice something |
| 8. coastal | h. the feeling that you can trust something or be sure about it |

Paraphrase — say it in your own words

1. “Japan's Vernal Equinox Day is different: the law simply names an astronomical event and leaves the date to science.”

Hint: Keep "is different", and use "does not give a date" and "scientists decide".

2. “Without these careful calculations, no publisher could print next year's calendar with confidence.”

Hint: Start with "If scientists did not ..." and use "be sure".

3. “It is a small but striking example of a modern state borrowing its measurements directly from the sky.”

Hint: Use "This ... example shows" and "uses the sky as a ruler".

Summary

Summarize the passage in about 50 words.



Debate & Opinion Essay

Prepare for a debate. Then write your opinion (100–150 words).

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Motion: National holidays should have fixed dates instead of dates decided by nature.

FOR 賛成

- Fixed dates are easier for schools, companies, and families to plan for many years ahead.
- With a moving date, the holiday becomes official only a year early, so calendar makers have to wait for the Official Gazette.
- Most national holidays are tied to fixed dates chosen by lawmakers, so a fixed date would match the other holidays.

Add your own reason:

AGAINST 反対

- The equinox is a real event in the sky, so the holiday should be on the day it actually happens.
- The date changes only between March 20 and 21 in most years, so it does not cause big problems for planning.
- A holiday decided by nature reminds people of the Sun and the seasons, just as ancient farmers watched the Sun to plan their year.

Add your own reason:

Opinion	<i>I believe / I think that ...</i>
Reason 1	<i>First, ... For example, ...</i>
Reason 2	<i>Second, ... In fact, ...</i>
Counter	<i>Some people say ... However, ...</i>
Conclusion	<i>In conclusion, ...</i>