

Date: _____

Chapter 9, lesson B: Spinning of Earth (9.B.1)

1. Complete the sentence. Choose from the following words.

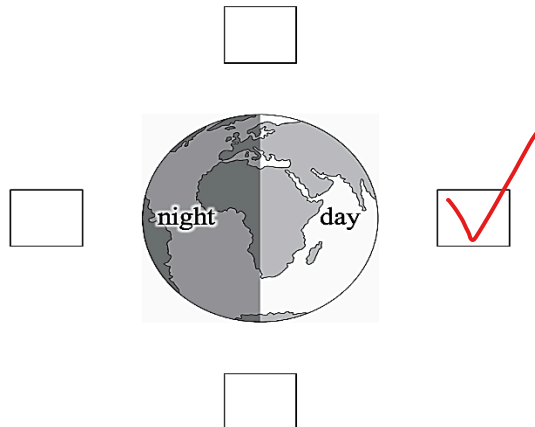
axis	centre	days	hours
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Earth spins on its axis.

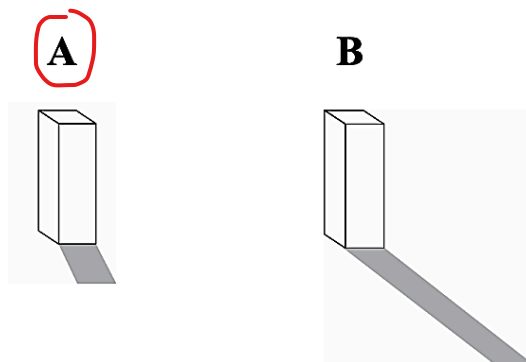
It takes 24 hours to complete one spin.

2. Look at the diagram. One side of Earth has day, and the other side has night. Where is the Sun shining when this happens?

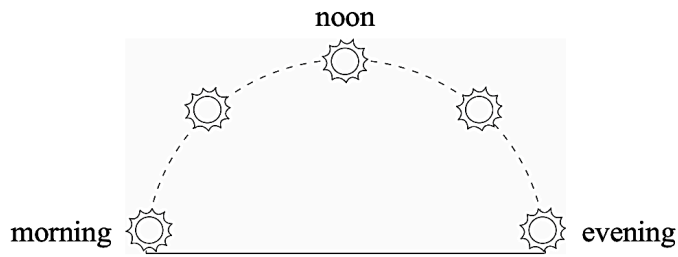
Tick (✓) the correct box.



3. Look at the diagram. Which diagram shows the shadow of the stick under the Sun around noon? Circle the correct letter.



4. The diagram shows the position of the Sun at different times of the day.



a. Complete the sentence.

The Sun appears to move across the sky because
Earth is spinning on its axis.

b. One morning, Samir observes the shadow of a tree in the garden.

He notices that the shadow changes in length and position at noon.

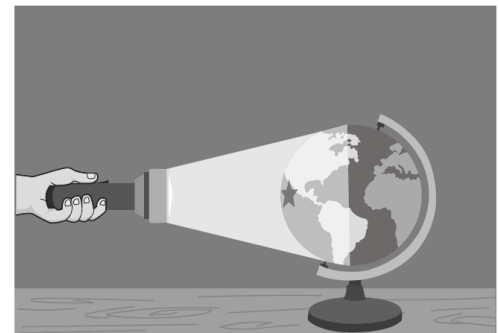
Explain why the shadow changes.

**The position of the Sun in the sky changes during the day.
In the morning, the Sun is low in the sky. So, the shadow is long.**

At noon, the Sun is higher in the sky. So, the shadow is shorter and in a different position.

5. The diagram shows a model.

Explain why we have day and night on Earth.
Use the model to help you.

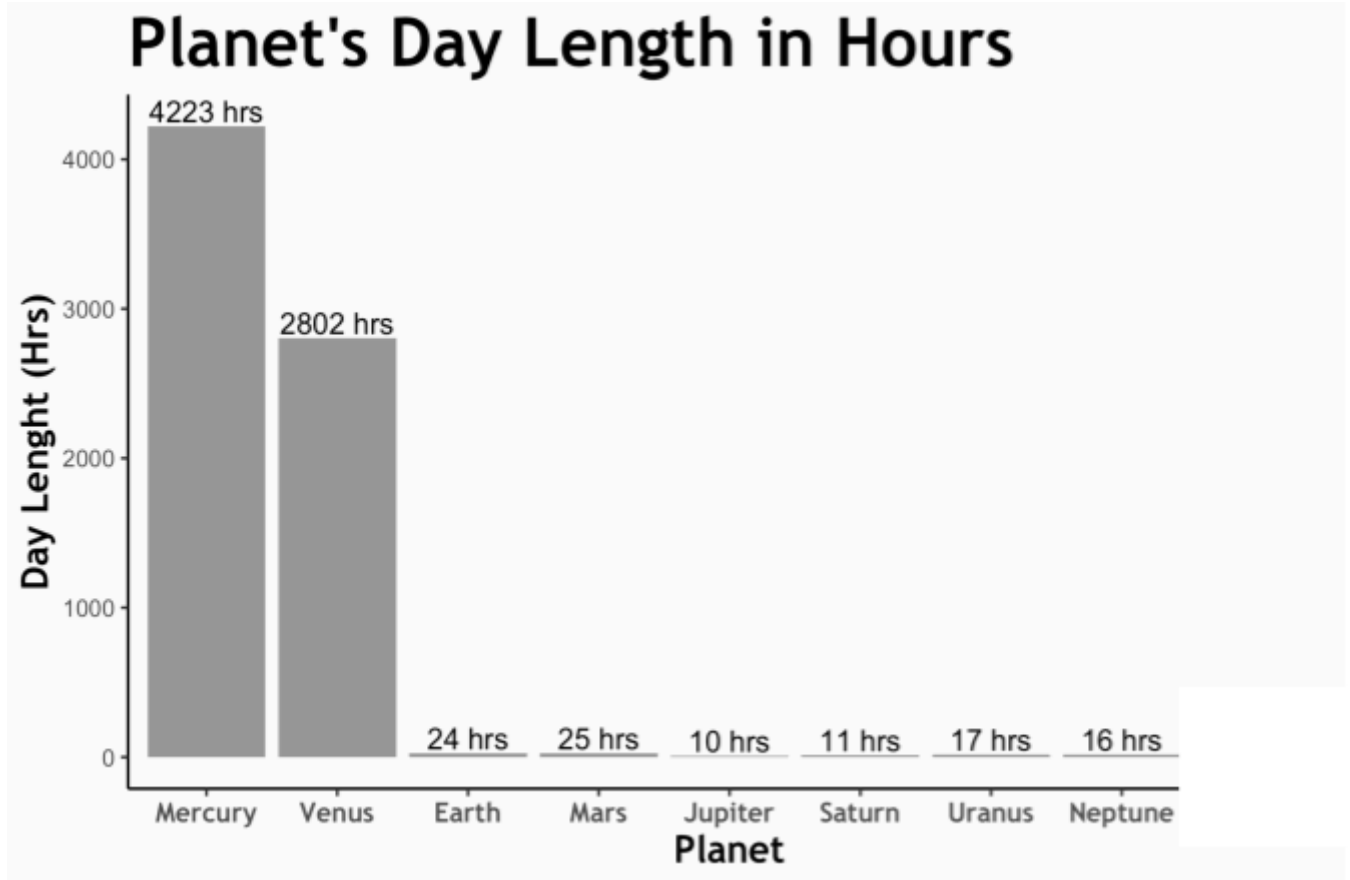


It is because Earth spins on its axis.

The Sun lights up one side of Earth at a time.

The side that is facing the Sun has day while the side that is not facing the Sun has night.

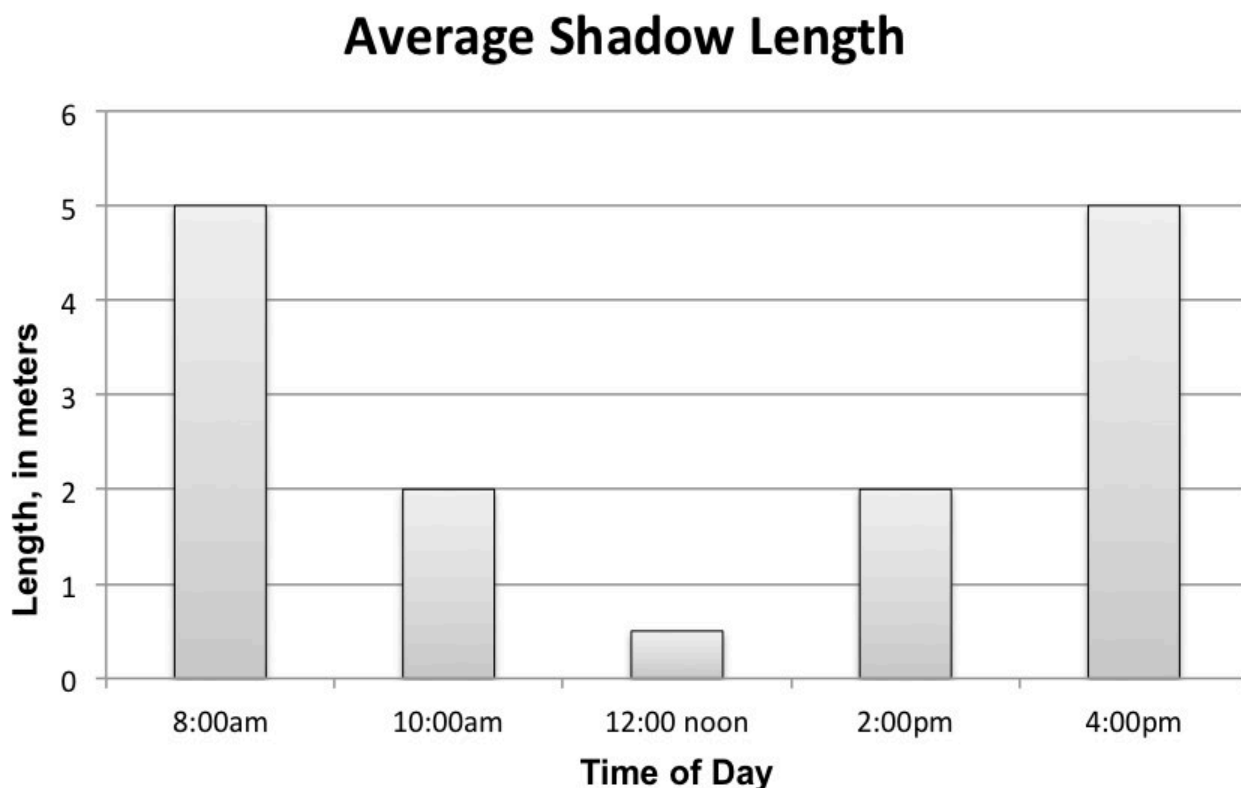
6. The bar chart shows how long a day is on each planet.
Answer the questions below after looking at the bar chart.



- a. Which planet has the longest day? Mercury
- b. Which planet has the shortest day? Jupiter
- c. Explain why Earth has 24 hours in a day?

This is because it takes Earth 24 hours to complete a full turn on its axis.

7. The bar chart below shows the length of a tree's shadow during the day.



a. At what time is the shadow the shortest during the day?

at 12:00 pm (noon)

b. The length of the shadow is 5 meters at 8:00 am and 4:00 pm.

c. The length of the shadow is 2 meters at 10 am and 2 pm.

d. Explain why the shadow is the longest at 4pm but the shortest at noon/ 12pm.

The shadows differ in length and position because Earth is spinning on its axis.

The position of the Sun in the sky changes during the day. In the afternoon, the Sun is low in the sky and the shadow is long.

At noon, the Sun is higher in the sky and the shadow is short and in a different position.