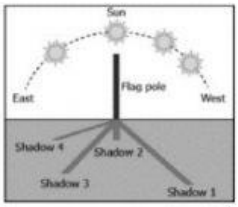
4.E.3B.3 Sun and Shadows Indicator Assessment

Name: _____

1. What causes the change in the length of shadows throughout the day?

A. the rotation of Earth
B. the rotation of the Sun
C. the revolution of Earth
D. the revolution of the Sun

2. The image shows four different shadows made by a flag pole kept in a playground. It also shows different positions of the Sun through the day. Which shadow occurs at noon?



A. Shadow 1
B. Shadow 2
C. Shadow 3
D. Shadow 4

3. A student observed that the shadow of a flagpole was different in the morning from the afternoon. What most likely caused the change?

A. The Sun's position in the sky changed.
B. The Sun was brighter in the morning than in the afternoon.
C. The flagpole was closer to the Sun in the morning.
D. The flagpole changed size.

4. A student measures the length of the shadow of a stick in his school garden at three different times during the day and records the measurements in a table, as shown.

Time	Length of Shadow (cm)
8:00 a.m.	170
10:00 a.m.	45
12:00 p.m.	25

What is the reason for the variations in the lengths of the shadows between 8 a.m. and 12 p.m.?

A. The position of the Sun in the sky remained low.
B. The position of the Sun in the sky remained high.
C. The position of the Sun in the sky changed from low to high.
D. The position of the Sun in the sky changed from high to low.

5. What happens as the day goes from morning to noon?

A. The shadows get longer.
B. The shadows get wider.
C. The shadows get thinner.
D. The shadows get shorter.

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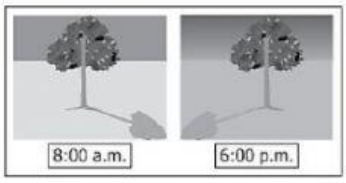
6. The image below shows the shadows of a tree at two different times of a day. What is true about the position of the Sun based on the image?



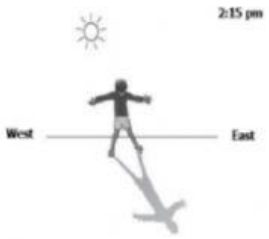
A. The Sun appears low in the sky in the morning and the evening.
B. The Sun appears high in the sky in the morning and the evening.
C. The Sun appears low in the sky in the morning and high in the sky in the evening.
D. The Sun appears high in the sky in the morning and low in the sky in the evening.

7. Which time of the day would the sun cast its shortest shadow during the summer?

A. 9 a.m.
B. 12 noon
C. 4 p.m.
D. 7 p.m.

8. Josh is standing outside at 2:15 p.m. and observes his shadow. What would happen to Josh's shadow if he came outside and stood at the same place at 6:30 p.m.?

A. His shadow would be shorter.
B. His shadow would be the same size.
C. His shadow would be longer.
D. His shadow would be behind him.

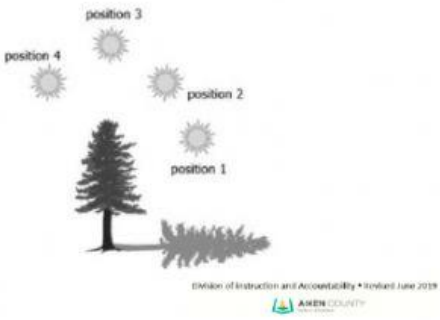


9. A long shadow indicates what times of day?

A. morning and night
B. noon and evening
C. noon and night
D. morning and evening

10. Use the image shown below to answer the question. Which position of the Sun would most likely cause the shadow?

A. position1
B. position 2
C. position 3
D. position 4



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