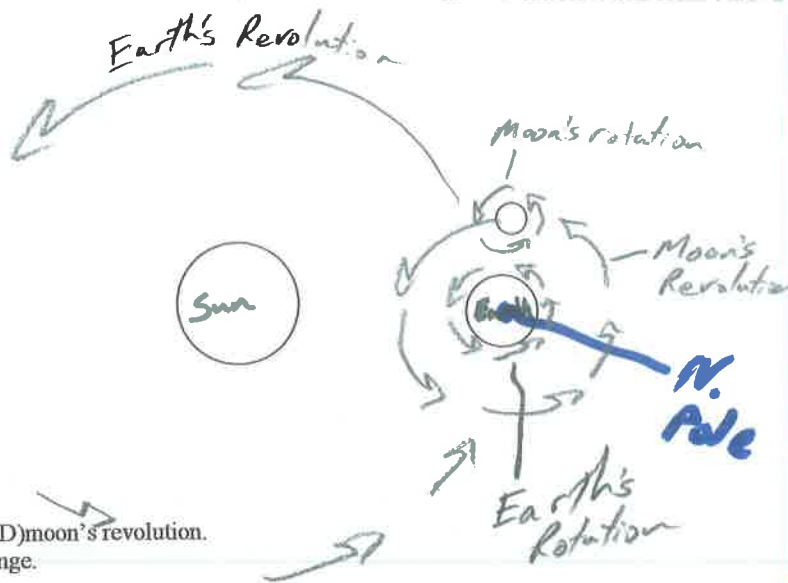


A

Earth Science
Practice Test: Motions of The Earth and Moon

1. The diagram on the right shows the Sun, Earth, and Moon. Use arrows to show the directions of the Earth's rotation, the Earth's revolution, the moon's rotation, and the moon's revolution.



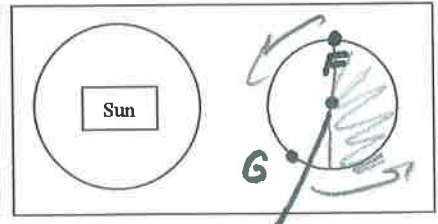
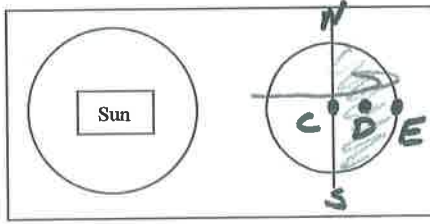
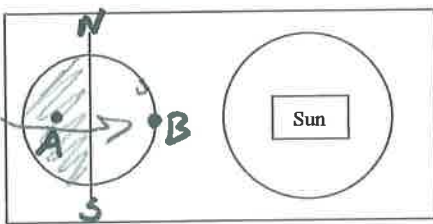
This view shows Earth's N. Pole

The following questions are multiple choice. Choices: A) Earth's rotation, B) Earth's revolution, C) moon's rotation, D) moon's revolution.

2. If it weren't for the B, the seasons would never change.
 3. We have night and day because of the A.
 4. The phases of the moon change because of the D.
 5. The daily changes in tides are caused primarily by the A.
 6. We need time zones because of the A.

7. Use the three diagrams below to determine the time of day at each letter. Choices: 12AM 3AM 6AM 9AM 12PM 3PM 6PM 9PM

Letter	A	B	C	D	E	F	G
Time	3AM	12PM	6PM	9PM	12AM	6AM	3PM



8. How would having only one time zone for the entire Earth make life more difficult?

In some places, the sun would rise at 9PM

9. How would having only one time zone for the entire Earth make life easier?

You would not have to re-set your watch when travelling.

10. Give a specific example which shows why the world would be more confusing if we did not have an international dateline.

If you took a trip around the world, heading eastward, you would add 24 hours to your watch. So your watch would be a full day ahead of people who hadn't traveled.

11. You are traveling west. You pass into two new time zones on your trip. Your trip lasts 4 hours, and it was 7:45 PM when you left. What time is it in your new time zone when you arrive? 9:45 PM
 12. You are standing next to the international dateline. Your watch is correct; it says 3:00PM, Jan. 15th. When you step to the East across the international dateline, you should re-set your watch so that it says 4PM, Jan 14th

The picture on the right shows a time-lapse photograph of stars in the Northern Hemisphere.

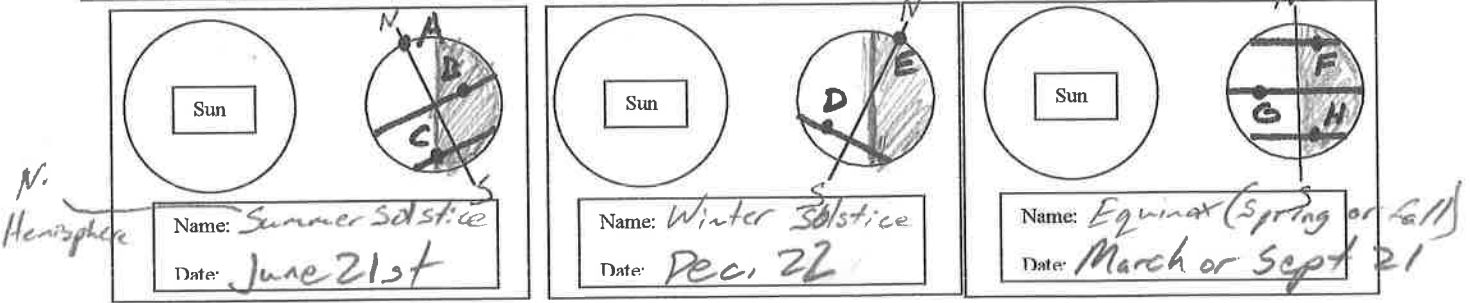
13. For approximately how long was the camera's shutter open? 18 hours
 14. Which letter would be your target if you decided to walk north? D

14.5 During what season was the picture taken?
Winter



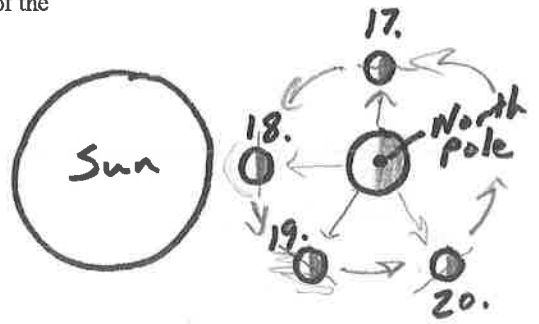
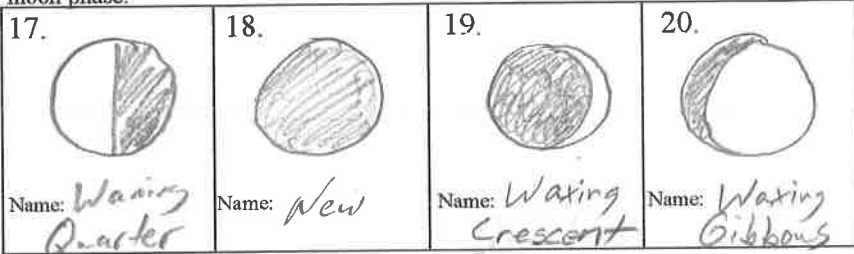
15. The lines on the diagrams below represent lines of latitude which circle the globe. For each lettered line of latitude, tell the approximate number of daylight hours. Choices: 0, 6, 12, 18, 24

Letter	A	B	C	D	E	F	G	H
Daylight	24	12	6	18	0	12	12	12



16. The diagrams above represent the Northern Summer Solstice, the Northern Winter Solstice, and the Northern Vernal Equinox. Label each diagram with the correct name, and date.

The diagram on the right shows several positions of the moon. For each position, draw what the moon phase would look like to us in the Northern Hemisphere, and write the correct name of the moon phase.

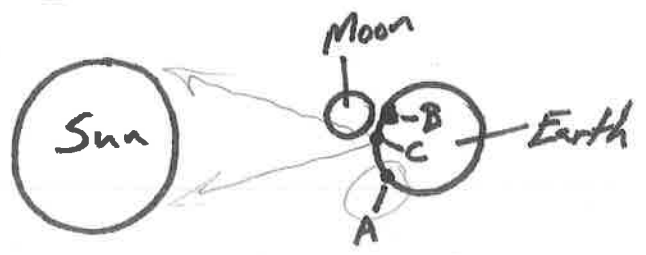


21. In the space on the right, sketch and label the Earth, Moon, and Sun as they should be positioned during a full lunar eclipse.



Look at the diagram on the right.

22. a) Which point is experiencing a partial eclipse? C
 b) Explain how you answered part a.
 23. Which point is experiencing a total eclipse? top.
 24. Which point is not experiencing any eclipse? A



25. Look at the diagrams below. On each diagram, label the places on the Earth which are experiencing a low tide (L), and label the places which are experiencing high tide (H).
 26. Rank the diagrams according to which should produce the most extreme tides.

