

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.



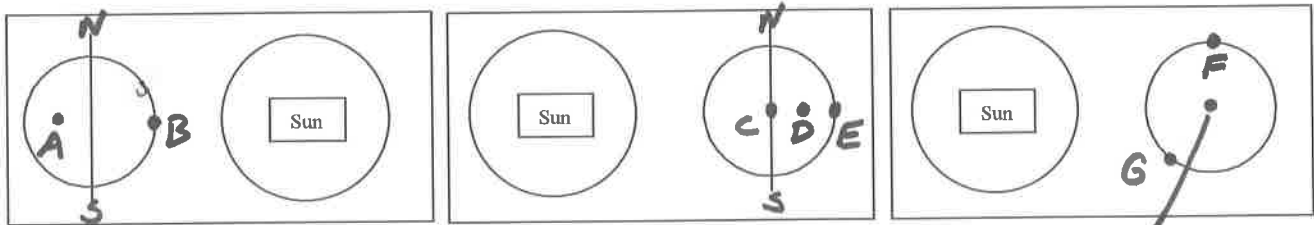
The following questions are multiple choice.

Choices: A) Earth's rotation, B) Earth's revolution, C) moon's rotation, D) moon's revolution.

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

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							



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

North Pole

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

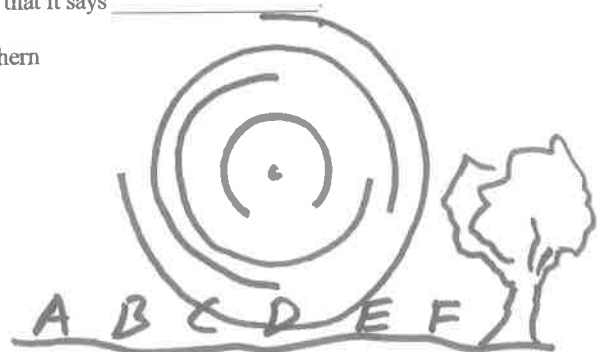
10. Give a specific example which shows why the world would be more confusing if we did not have an international dateline.

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?
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 _____.

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?
14. Which letter would be your target if you decided to walk north?

14.5 During what season was the picture taken?



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								

Name: _____
Date: _____

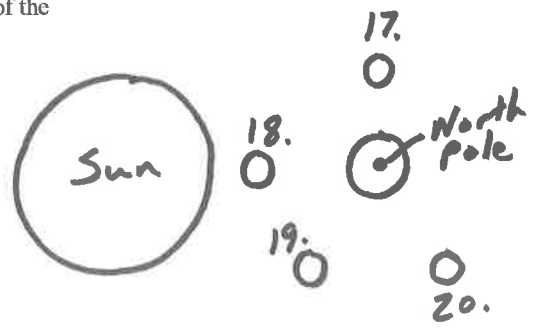
Name: _____
Date: _____

Name: _____
Date: _____

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.

17. Name: _____	18. Name: _____	19. Name: _____	20. Name: _____
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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?
b) Explain how you answered part a.
23. Which point is experiencing a total eclipse?
24. Which point is not experiencing any eclipse?



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.

A

B

North pole

C