

Earth's Motion Study Guide

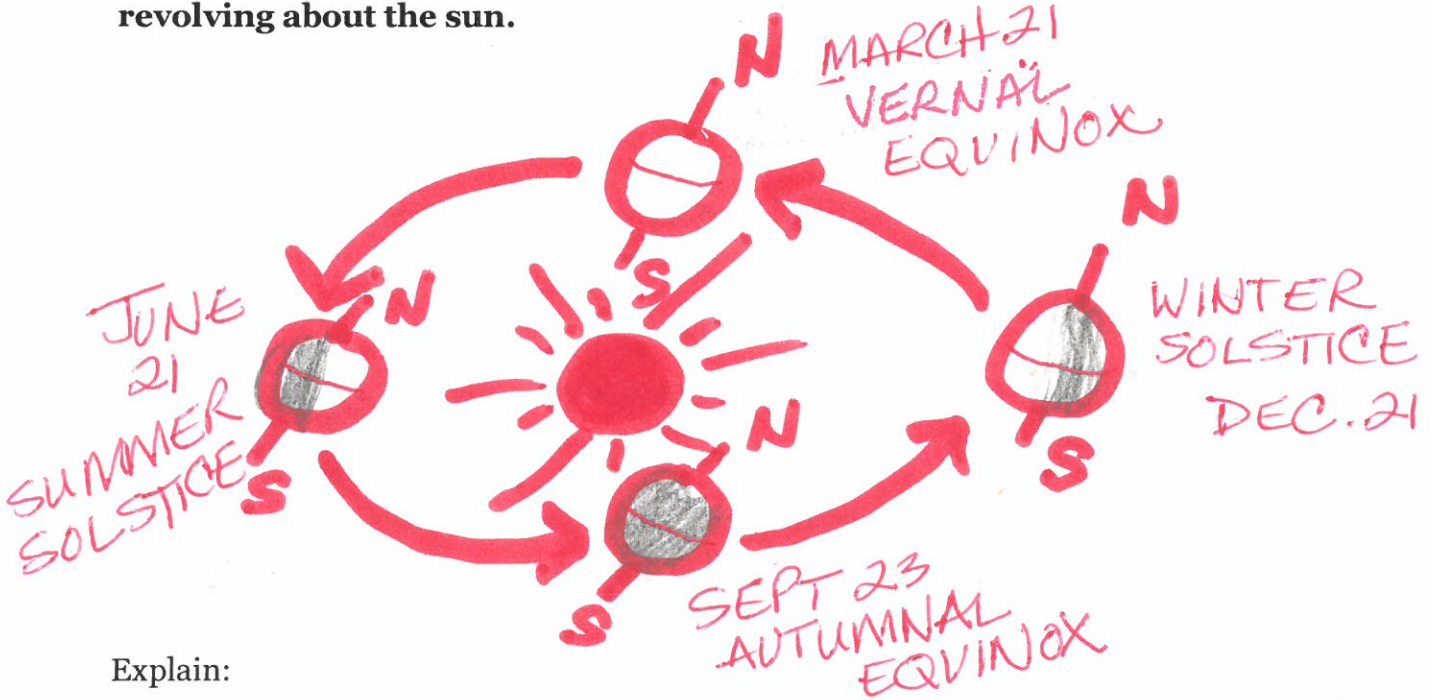
Rotation and Revolution

1. Draw a picture to show the Earth rotating. Explain what happens due to the Earth's rotation.



Explain: The Earth spins on its axis causing day and night

2. Draw a picture to show the Earth revolving. Illustrate the Earth at each of the solstices and each of equinoxes. Explain what happens due to the Earth's revolving about the sun.



Explain:

THE EARTH MOVES IN AN ORBIT COUNTERCLOCKWISE AROUND THE SUN. THIS LEADS TO THE EARTH HAVING SEASONS.

Name _____ Date _____ Hour _____

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3. The seasons are caused by ① INDIRECT VS. DIRECT SUNLIGHT
② EARTH REVOLVING AROUND THE SUN
③ EARTH BEING TILTED ON ITS AXIS

4. Describe two ways the Earth moves in space
① THE EARTH ROTATES ON ITS AXIS
② THE EARTH REVOLVES AROUND THE SUN

5. Earth revolves around the sun tilted on its AXIS.

6. How long does it take for the Earth to make a complete revolution around the sun?

365 $\frac{1}{4}$ days ~~Each planet~~ makes one revolution each YEAR.

7. How long does it take for the Earth to make a complete rotation around ~~the sun?~~
ITS AXIS

24 hours. The time it takes for a planet to make one rotation is called a day on that planet.

8. At the equator it always feels WARMER compared to the poles because there are more DIRECT rays from the sun.

9. Do we have winter because the Earth is much farther away from the sun? and summer because the sun is much closer? NO, WE ARE NOT

SIGNIFICANTLY DISTANCED. IT IS HOW THE SUN'S RAYS HIT US.

10. The day of the year that has the most amount of time between sunrise and sunset is called SUMMER SOLSTICE.

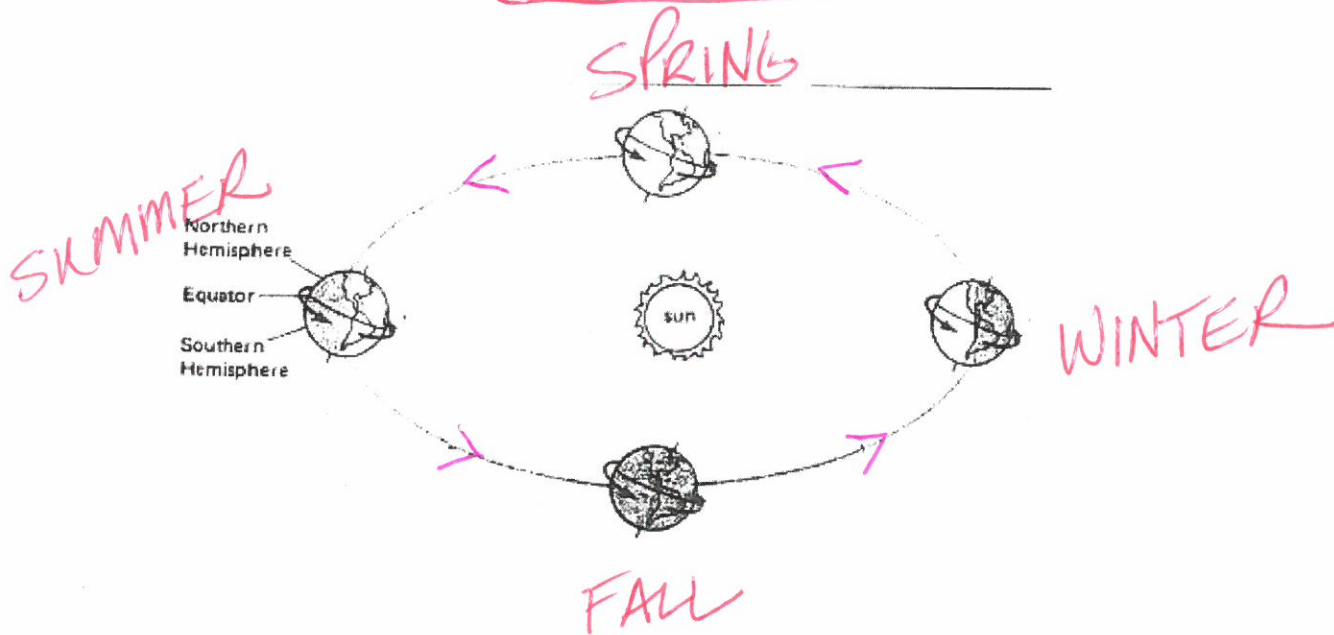
11. The day of the year that has the least amount of time between sunrise and sunset is called WINTER SOLSTICE.

12. A day of the year where there are equal amounts of time between sunrise and sunset and sunset and sunrise is EQUINOX.

→ CALLED AN

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13. Look at the picture of the Earth revolving around the sun. Label each **season** we would experience in the Northern Hemisphere according to the Earth's position.



14. The sun's rays in the summer are more DIRECT.

15. The sun's rays in winter are more INDIRECT.

16. Explain how it can be summer in the Northern Hemisphere and winter in the Southern Hemisphere at the same time.

WHEN THE NORTHERN HEMISPHERE IS TILTED AWAY FROM THE SUN, THE SOUTHERN HEMISPHERE IS TILTED TOWARD IT SO A DIFFERENT TYPE OF SONLIGHT IS RECEIVED (INTENSITY)

