Earth Science – Chapter 1 Test – The Earth’s Motion

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Study Time: \_\_\_\_\_\_\_\_\_\_

Fill in the blank: Fill in each blank with the correct theory.

1. The view that the sun is at the center of the solar system is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ theory.
2. The view that the earth is at the center of the universe is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ theory.

The following statements or phrases apply to either the heliocentric theory or the geocentric theory. If the statement or phrase applies to the heliocentric theory place an “A: in the space provided. If the statement or phrase applies to the geocentric theory place a “E” in the space.

1. \_\_\_\_\_ Theory taught by Galileo and Copernicus
2. \_\_\_\_\_ Teaches that the earth is stationary (does not move)
3. \_\_\_\_\_ Theory that is also named after its promoter, Ptolemy
4. \_\_\_\_\_ Planets move around in small circles called epicycles
5. \_\_\_\_\_ Believed strongly by the Roman Catholic church during the Middle Ages
6. \_\_\_\_\_ Atmosphere dragged along by the earth
7. \_\_\_\_\_ Described by the order: sun, mercury, venus, earth
8. \_\_\_\_\_ Described by the order: earth, moon, mercury, venus

Match the names with the correct statement. A name may be used more than once or not at all.

1. Copernicus B. Newton C. Tycho

D. Ptolemy E. Foucault F. Aquinas

G. Galileo H. Kepler

1. \_\_\_\_ Polish astronomer who developed the heliocentric theory during the 1500’s
2. \_\_\_\_ Was inspired to formulate the law of gravity after observing an apple fall from a tree
3. \_\_\_\_ Author of *The Revolutions*
4. \_\_\_\_ This man was one of the first scientist to use a telescope therefore he was the first to see many things such as the rings around Saturn and the moons of Jupiter
5. \_\_\_\_ Greek philosopher who attempted to prove the earth centered theory of the solar system. Lived during the second century AD
6. \_\_\_\_ A student of Tycho Brahe: formulated the laws of planetary motions
7. \_\_\_\_ Hung a 200 ft. pendulum inside the Pantheon
8. \_\_\_\_ A Roman Catholic theologian and Italian philosopher who claimed he could harmonize the science and thinking of the ancient thinkers with Christianity
9. \_\_\_\_ One of the most accurate astronomical observers of all time
10. \_\_\_\_ Used a pendulum to prove that the earth rotates on its axis

Matching: Match each word with the correct definition.

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| --- | --- |
| 1. \_\_\_\_ Atmosphere
 | 1. A day around December 21 when the sun appears to stop directly over the Tropic of Capricorn; often called the beginning of winter
 |
| 1. \_\_\_\_ Autumnal Equinox
 | 1. A day around June 21 when the sun appears to stop directly over the Tropic of Cancer; often called the beginning of summer
 |
| 1. \_\_\_\_ Copernican Theory
 | 1. A day around March 21 when an equinox occurs; often called the beginning of spring
 |
| 1. \_\_\_\_ Eccentric
 | 1. A day around September 22 when an equinox occurs; often called the beginning of fall
 |
| 1. \_\_\_\_ Ecliptic
 | 1. A day when the sun is directly over the equator, making the amount of daylight and night nearly equal
 |
| 1. \_\_\_\_ Epicycle
 | 1. A small circle that was part of a planet’s orbit in Ptolemy’s system
 |
| 1. \_\_\_\_ Equinox
 | 1. An apparent shift in position caused by a change in the point of observation; used to determine distance to nearby stars
 |
| 1. \_\_\_\_ Hydrosphere
 | 1. An imaginary line on the earth’s surface at 23 ½ N latitude
 |
| 1. \_\_\_\_ Inertia
 | 1. An imaginary line on the earth’s surface at 23 ½ S latitude
 |
| 1. \_\_\_\_ Law of Gravitation
 | 1. An off-center circle
 |
| 1. \_\_\_\_ Lithosphere
 | 1. The apparent path of the sun among the stars
 |
| 1. \_\_\_\_ Parallax
 | 1. The expanse of the universe in which the solar system, stars, and galaxies are located
 |
| 1. \_\_\_\_ Revolution
 | 1. The force that makes all bodies in the universe tend to move toward one another
 |
| 1. \_\_\_\_ Rotation
 | 1. The layers of air surrounding the earth
 |
| 1. \_\_\_\_ Science
 | 1. The movement of the earth around the axis
 |
| 1. \_\_\_\_ Space
 | 1. The movement of the earth around the sun
 |
| 1. \_\_\_\_ Summer Solstice
 | 1. The solid part of the earth
 |
| 1. \_\_\_\_ Tropic of Cancer
 | 1. The study of observable facts or events
 |
| 1. \_\_\_\_ Tropic of Capricorn
 | 1. The tendency of matter to keep moving in the same direction
 |
| 1. \_\_\_\_ Vernal Equinox
 | 1. The theory developed by Nicolaus Copernicus which states that the earth rotates on its axis and that the planets revolve around the sun
 |
| 1. \_\_\_\_ Winter Solstice
 | 1. The water on the earth
 |

List two of the four evidences for a rotating earth that we discussed in class.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

List two of the three evidences for a revolving earth that we discussed in class.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_