

SECTION

1

Reinforcement

Earth's Motion and Seasons

W

Directions: *Unscramble the terms in italics to complete the sentences below. Write the terms on the lines provided.*

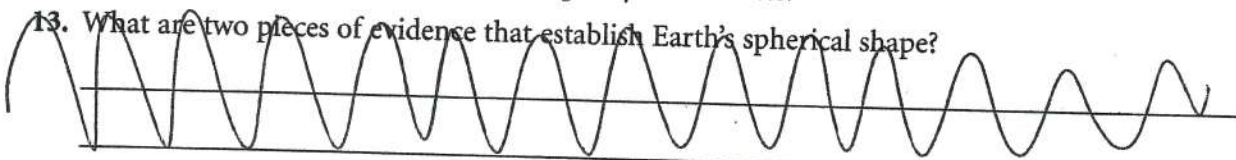
- _____ 1. The Sun reaches its greatest distance north or south of the equator at the *summer and winter solstices*.
axis
- _____ 2. Earth spins on its *axis*, an imaginary line drawn through the north geographic and south geographic poles.
orbit
- _____ 3. The *broth* of Earth is an ellipse.
rotation
- _____ 4. The *rotation* of Earth on its axis causes us to experience night and day.
revolution
- _____ 5. The seasons occur with the *rotation* of Earth around the Sun.
equinox
- _____ 6. The Sun is directly above Earth's equator at *equinox*.

Directions: *Complete the following sentences using the correct terms.*

7. The longest day of the year occurs during the summer solstice.
8. Daylight hours are longer for the hemisphere that is tilted toward the Sun.
9. Earth is shaped like a ball or sphere.
10. Gravity is a force that attracts all objects toward each other.
11. Earth's tilt and revolution cause seasons to occur.
12. The summer solstice, the longest day of the year, happens on June 21 or 22 for the northern hemisphere and on December 21 or 22 for the southern hemisphere.

Directions: *Answer the following questions using complete sentences.*

13. What are two pieces of evidence that establish Earth's spherical shape?



14. What effect does Earth's tilt have on the seasons?

The tilt of the earth causes the amount of daylight to change with the seasons.

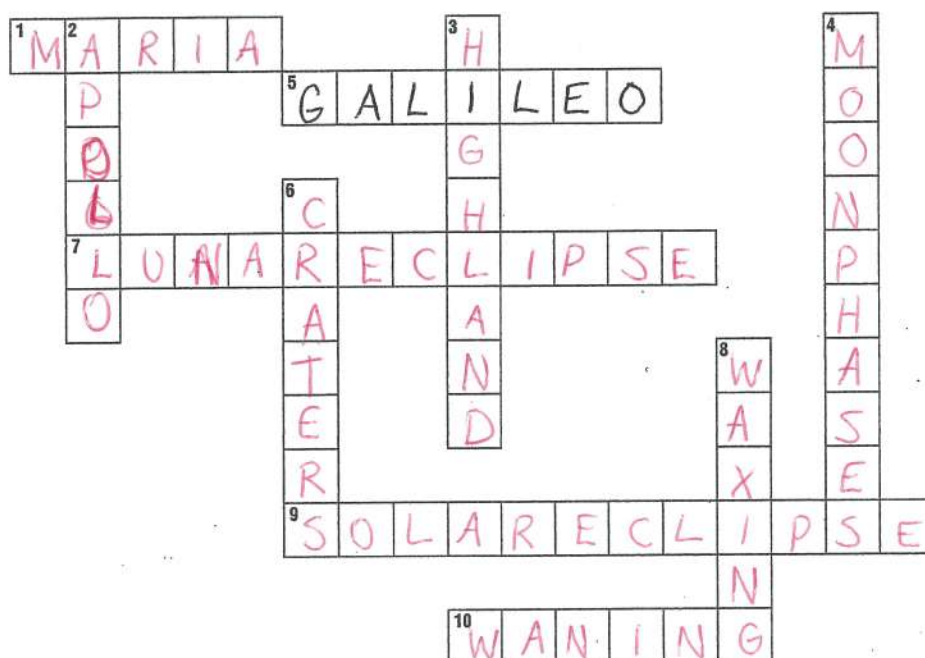
SECTION

2

Reinforcement

Earth's Moon

Directions: Use the clues below to complete the crossword puzzle



Across

- Dark areas on the Moon, probably caused by lava flows
- Astronomer who studied the Moon and named its features
- When the Sun, Earth, and the Moon are lined up such that the full moon moves into Earth's shadow
- When the Moon blocks sunlight from reaching a portion of Earth's surface
- During these moon phases, the amount of the lighted side that can be seen begins to decrease.

Down

- U.S. space program that sent astronauts to the moon
- A light area on the Moon; these hold the oldest Moon rocks analyzed so far
- Changing views of the Moon as seen from Earth
- Depressions on the Moon caused by meteorites
- During these Moon phases, the amount of the lighted side that can be seen begins to increase.

Directed Reading for Content Mastery

Section 1 ■ Earth's Motion and Seasons
Section 2 ■ Earth's Moon

Directions: For each of the following, write the letter of the term or phrase that best completes the sentence.

- b 1. Earth's shape is _____ spherical.
a. exactly b. nearly
- b 2. The length of day equals the length of night during the _____.
a. solstice b. equinox
- a 3. _____ can only occur when the Sun, the Moon, and Earth are perfectly lined up.
a. Eclipses b. Seasons
- b 4. The spinning of Earth on its axis is called _____.
a. revolution b. rotation
- ~~5. Evidence gathered by Apollo space program supports the hypothesis that life formed _____.~~
~~a. _____ large object collided with Earth~~
~~b. at the same time and from the same material as Earth~~
- a 6. During summer, Earth's northern hemisphere is tilted _____ the Sun.
a. toward b. away from
- a 7. _____ are regions of the moon that probably formed when lava filled bowl-like basins on the Moon's surface.
a. Maria b. Highlands
- b 8. The waxing phases of the Moon are immediately followed by _____.
a. new moon b. full moon
- a 9. The curved shadow on the Moon during a lunar eclipse is evidence of Earth's _____.
a. shape b. density
- b 10. The complete cycle of the Moon's phases takes about _____ days.
a. 32 b. 29.5



Chapter Review

Earth in Space

W

Part A. Vocabulary Review

Directions: Select the term from the following list that matches each description.

axis	orbit	rotation	revolution	equinox
solstice	lunar eclipse	Moon phases	solar eclipse	craters
asteroids	comets	solar system	astronomical unit	nebula

- craters 1. depressions caused by large meteorites
- rotation 2. the spinning of Earth on its axis
- nebula 3. cloud of gas, ice, and dust in space
- solar system 4. composed of the Sun, planets, asteroids, comets, and other objects in orbit around the Sun
- revolution 5. the orbiting of Earth around the Sun
- axis 6. imaginary line that runs from the north geographic pole through Earth to the south geographic pole
- Astronomical Unit 7. distance of about 150,000,000 km (93 million miles)
- asteroids 8. small, rocky objects that lie in a belt between Mars and Jupiter
- moon phases 9. the changing views of the Moon as seen from Earth
- lunar eclipse 10. when Earth blocks sunlight from reaching the Moon
- solstice 11. when the Sun reaches its greatest distance from the equator (June & Dec.)
- solar eclipse 12. when the Moon blocks sunlight from reaching Earth's surface
- equinox 13. when the Sun is directly above Earth's equator (March & Sept.)
- comets 14. objects made mainly of rock and ice that partly vaporize and form tails as they approach the Sun
- orbit 15. curved path that Earth follows around the Sun

Part B. Concept Review

1. Number the planets in the order they appear from the Sun, with the planet closest to the Sun being number 1 and the planet farthest from the Sun being number 8.

- | | | |
|---------------------|--------------------|--------------------|
| <u>8</u> a. Neptune | <u>6</u> d. Saturn | <u>2</u> g. Venus |
| <u>5</u> b. Jupiter | <u>3</u> e. Earth | <u>7</u> h. Uranus |
| <u>1</u> c. Mercury | 4 | <u>4</u> i. Mars |

Chapter Review (continued)

Directions: Answer the following questions on the lines provided.

2. How were maria probably formed?

Lava flows filling craters

3. Describe the two types of Earth's motions. How long does each one last?

rotation - spinning on its axis ; lasts 24 hours

revolution - travel around the sun ; lasts 365 1/4 days

4. How are Earth and Venus similar? How are they different?

They are similar in size and they orbit the Sun.

Venus is much hotter than Earth and has more carbon Dioxide, volcanoes and lava flows

5. What is the asteroid belt and where is it located?

Band of rocky objects between Mars and Jupiter.

6. What is the current scientific explanation of the origin of Earth's Moon?

Directions: Complete the following sentences using the correct terms.

7. The inner planets are solid, rocky, and Earth-sized.

8. ~~Most~~ All of the outer planets are gaseous and have thick atmospheres.

9. The hemisphere tilted toward the Sun receives more daylight than the other hemisphere.

10. ~~Of the five outer planets, the one that is made of gas is~~

Chapter Test

Earth in Space

Review

I. Testing Concepts

Directions: For each of the following, write the letter of the term or phrase that best completes the sentence.

- c 1. Dark areas on the Moon's surface created by lava flows are _____.
a. highlands b. nebulas c. maria d. craters
- a 2. Earth's axis is _____.
a. tilted b. curved c. vertical d. horizontal
- b 3. Light-colored areas on the Moon are _____.
a. maria b. highlands c. moon phases d. high cliffs
- a 4. Earth completes one _____ each year.
a. revolution b. rotation c. solstice d. phase
- b 5. A _____ occurs when Earth moves into the Moon's shadow.
a. lunar eclipse b. solar eclipse c. solstice d. moon phase
- d 6. _____ are the changing views of the Moon as seen from Earth.
a. Waning moons b. Waxing moons c. Orbits d. Moon phases
- d 7. During a(n) _____, Earth's tilt is not toward or away from the Sun.
a. solstice b. revolution c. solar eclipse d. equinox
- b 8. Both Earth and the Moon _____ around an axis.
a. orbit b. rotate c. co-form d. revolve
- c 9. Earth's curved path around the Sun is a(n) _____.
a. axis b. rotation c. orbit d. equinox
- a 10. The _____ includes the Sun, planets, asteroids, and comets.
a. solar system b. nebula c. solstice d. asteroid belt
- d 11. _____ are used to measure distances between objects in the solar system.
a. Kilometers b. Solar units c. Nebulas d. Astronomical units
- b 12. When the Sun, Earth, and the Moon are lined up and the full moon moves into Earth's shadow, a(n) _____ occurs.
a. moon phase b. lunar eclipse c. solar eclipse d. equinox
- b 13. Meteorites striking the surface of the Moon created _____.
a. highlands b. craters c. the crust d. a dense iron core
- c 14. During each _____, the Sun is directly over either the Tropic of Cancer or the Tropic of Capricorn.
a. solstice b. equinox c. season d. moon phase
- c 15. Earth's orbit around the Sun is _____.
a. circular b. angular c. elliptical d. unpredictable

Chapter Test (continued)

- ~~16. Almost all _____ in our solar system are located beyond Neptune.~~
~~a. asteroids b. gaseous planets c. rocky planets d. comets~~
- C 17. The _____ separates the inner and outer planets.
 a. Moon b. nebula c. asteroid belt d. highland
- C 18. Our solar system is thought to have formed from a large _____, a rotating cloud of gas, ice, and dust.
 a. comet b. asteroid belt c. nebula d. Oort Cloud

II. Understanding Concepts

Skill: Identifying and Labeling Illustrations

Directions: Study the following diagram. Then identify each phase by filling in each blank below.



1. wax cres 2. 1st quarter 3. wax gib 4. full moon 5. wan gib 6. 3rd quarter 7. wan cres

Skill: Concept Mapping

Directions: Complete the concept map using the correct terms from the chapter.

