Name _____ Class_____Date_____

Skills Worksheet

DR 18-1 pgs. 554 – 557

Section: Astronomy: The Original Science

1. In what way did people in ancient cultures mark the passage of time?

_____

2. What science did the study of the night sky eventually become?

_____

OUR MODERN CALENDAR

Match the correct definition with the correct term. Write the letter in the space provided.

_____ 3. roughly the amount of time required for the moon to orbit once around the Earth

_____ 4. the time required for the Earth to orbit once around the sun

_____ 5. the time required for the Earth to rotate once on its axis

a. day
b. month
c. year

WHO'S WHO OF EARLY ASTRONOMY

_____ 6. Most early astronomers thought that the universe consisted of
   a. the sun and the Earth.
   b. the sun and the planets.
   c. the sun, the moon, and the planets.
   d. the sun, the moon, and the Earth.

_____ 7. What was Ptolemy's theory of the universe?
   a. The Earth was at the center of the universe, and the sun, moon, and other planets revolved around it.
   b. The sun was at the center of the universe, and the Earth and the other planets revolved around it.
   c. The sun and the moon revolved around the Earth, but the other planets revolved around the sun.
   d. The planets revolved around the sun in elliptical orbits.

_____ 8. How long did Ptolemy's Earth-centered theory remain the popular theory for the structure of the universe?
a. about 100 years
b. about 500 years
c. over 1,500 years
d. over 5,000 years

_____ 9. Why was Ptolemy's theory of the universe helpful even though it was incorrect?
a. It helped revolutionize astronomy.
b. It predicted the motions of the planets better than any other theory at the time.
c. It promoted new research in the study of the universe.
d. It explained the sun's role in the universe.

_____ 10. What was Copernicus's theory of the universe?
a. The Earth was at the center of the universe, and the sun, moon, and other planets revolved around it.
b. The sun was at the center of the universe, and the Earth and the other planets revolved around it.
c. The sun and moon revolved around Earth, but the other planets revolved around the sun.
d. The planets revolved around the sun in elliptical orbits.

_____ 11. Which astronomer's theory led to major changes in science and society?
a. Hubble
b. Brahe
c. Ptolemy
d. Copernicus

_____ 12. What was Brahe's theory of the universe?
a. The Earth was at the center of the universe, and the sun, moon, and other planets revolved around it.
b. The sun was at the center of the universe, and the Earth and the other planets revolved around it.
c. The sun and moon revolved around Earth, but the other planets revolved around the sun.
d. The planets revolved around the sun in elliptical orbits.

_____ 13. Why was Brahe's work helpful even though his theory of the universe was incorrect?
a. He accurately described the planets' orbits.
b. He made detailed measurements of the sun.
c. He explained the sun's role in the universe.
d. He made very precise observations of the planets and stars.

_____ 14. What did Kepler believe about the universe?

a. The Earth was at the center of the universe, and the sun, moon, and other planets revolved around it.
b. The sun was at the center of the universe, and the Earth and the other planets revolved around it.
c. The sun and moon revolved around Earth, but the other planets revolved around the sun.
d. The planets revolved around the sun in elliptical orbits.

_____ 15. What laws did Kepler state that are still in use today?

a. laws of planetary names
b. laws of planetary motion
c. laws of solar motion
d. laws of gravity

_____ 16. Who was one of the first scientists to use a telescope?

a. Galileo
b. Kepler
c. Newton
d. Hubble

17. What four discoveries did Galileo make that showed planets are physical bodies like the Earth and not "wandering stars"?

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18. What did Newton prove about gravity?

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19. Newton's laws of motion and gravity helped to explain many other scientists' observations. For example, what law announced by Kepler was supported by Newton's laws?

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MODERN ASTRONOMY

20. What were two milestones in the development of modern astronomy?

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21. What did many astronomers believe about galaxies prior to the 1920s?

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22. What did Edwin Hubble prove in 1924?

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23. What belief of other astronomers did Edwin Hubble's discovery confirm?

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24. What tools do astronomers use to study space?

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25. How are computers used to study space?

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