

Chapter Test A

Chapter: Planets of the Solar System

MATCHING

In the space provided, write the letter of the definition that best matches the term or phrase.

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| _____ 1. Ptolemy | a. a large body made up of smaller bodies that joined together through collisions and gravity |
| _____ 2. gas giant | b. an astronomer who believed the planets moved in epicycles as they revolved in larger circles around Earth |
| _____ 3. planetesimal | c. a rotating cloud of gas and dust from which Earth's solar system formed |
| _____ 4. terrestrial planet | d. a type of planet with a deep, massive atmosphere made mostly of gas; denser than an inner planet |
| _____ 5. protoplanet | e. a small planet that is farthest from the sun; not considered a gas giant |
| _____ 6. Copernicus | f. a small body from which a planet originated in the early stages of the solar system |
| _____ 7. solar nebula | g. a planet that is made of solid rock and has impact craters and a metallic core; another name for inner planet |
| _____ 8. Kuiper belt | h. a scientist who hypothesized that a moving body will stay in motion and resist a change in speed or direction until an outside force acts upon it |
| _____ 9. Newton | i. a region just beyond the orbit of Neptune; contains many small bodies made mostly of ice |
| _____ 10. Pluto | j. an astronomer who proposed a heliocentric model of the solar system |

MULTIPLE CHOICE

In the space provided, write the letter of the answer choice that best completes each statement or best answers each question.

- _____ 11. The right combination of temperature, water, and oxygen
- a. affects Neptune's orbit.
 - b. causes gas giants to form.
 - c. supports life on Earth.
 - d. results in storms on Jupiter.

Chapter Test A *continued*

- _____ **12.** Kepler's first law states that planets orbit the sun in paths called
a. ellipses. **c.** epicycles.
b. circles. **d.** periods.
- _____ **13.** Young Earth formed a core, mantle, and crust in a process called
a. layering.
b. settling.
c. dispersion.
d. differentiation.
- _____ **14.** Early fresh water oceans became salty when
a. rainwater carried dissolved solid rock to the oceans.
b. coral reefs created a salty ocean bottom.
c. salt particles fell from the atmosphere into the oceans.
d. floods carried salty soil to the deltas and then into the oceans.
- _____ **15.** The two inner planets most alike in size, mass, and density are
a. Mercury and Venus.
b. Earth and Mars.
c. Venus and Earth.
d. Mars and Mercury.
- _____ **16.** Kepler's third law describes the relationship between the average distance of a planet from the sun and the planet's
a. orbital period.
b. average temperature.
c. gravitational pull.
d. inertia.
- _____ **17.** Which planet has volcanic regions that may still be active?
a. Mercury **c.** Saturn
b. Pluto **d.** Mars
- _____ **18.** Kepler's second law states that equal areas are covered in equal amounts of time as an object
a. spins on its axis.
b. travels one light year.
c. orbits the sun.
d. completes an eclipse.
- _____ **19.** Which of the following planets has the most complex ring system?
a. Neptune **c.** Uranus
b. Jupiter **d.** Saturn
- _____ **20.** The early atmosphere developed when many volcanic eruptions released large amounts of gases in a process called
a. lava flow. **c.** combustion.
b. outgassing. **d.** ozone.