

Name:

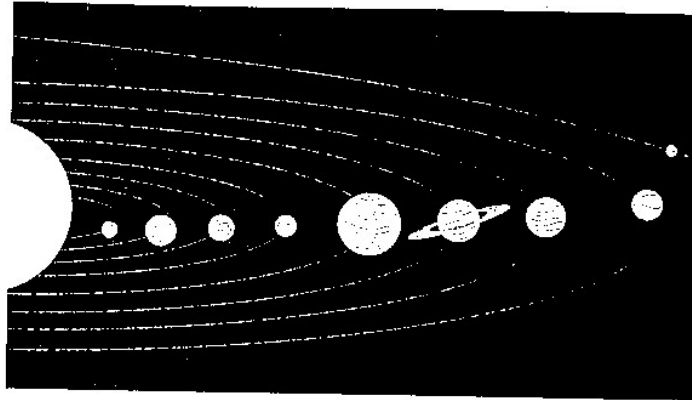
Teacher:

## MAP Science Test Prep, Unit D Test

### Constructed-Response Items

Directions: Type the answer in the square that follows each question.

1.



(a) What is one way the model shown above is similar to the actual solar system?

(b) What is one way the model shown above is different from the actual solar system?

2.



(a) A student observes the phase of the Moon shown in the drawing above. What phase will she see in about 14 days?

- (b) Suppose the Moon completed one rotation faster than the time it completes one revolution. How would this affect how much of the Moon people can see from Earth? Explain your answer.
3. Suppose you observe the constellation Ursa Major one evening.
- (a) You first see the constellation at about 7:00 p.m. If you look for it again in the same place in the sky at 11:00 p.m., you will not see it. Explain why.
- (b) The next evening you again look at the sky. You see Ursa Major in the same place in the sky where you first saw it the night before. What time is it? Explain how you know.
4. The gasoline engine is used to run automobiles and other kinds of transportation.
- (a) Give an example of a positive effect that the use of the gasoline engine has had on society.
- (b) Give an example of a negative effect that the use of the gasoline engine has had on society.

### Selected-Response Items

**Directions: Read each question and answer choice. Mark in the circle next to each correct answer choice.**

1. Which is true about the orbital paths of planets in the solar system?
- The larger a planet is, the slower it revolves.
- The smaller a planet is, the faster it revolves.
- The closer a planet is to the Sun, the smaller its orbit.
- The farther away a planet is from the Sun, the smaller its orbit.

2. Many different countries worked together to build the International Space Station. What was the main problem they were trying to solve?

how countries could work together peacefully

which country would be first to complete the station

how people could live and work in space for long periods of time

whether solar panels should be used to supply power to the station

3. A student needs to measure the angle of a star above the horizon for a science fair project. Which instrument should she use?

microscope

telescope

sextant

satellite

4. Earth and Venus are similar because both have rocky surfaces.

hot cloud coverings.

comfortable temperatures.

an atmosphere that supports life.

5.

Year Halley's Comet Passed Earth
1531
1607
1682
1758
1835
1910
1986

The table above shows the dates of Halley's comet passing near Earth. During which year would you expect Halley's comet to pass near Earth again?

2026

2061

2046

2081

6. How have high-tech telescopes allowed scientists to make better observations of the solar system?  
to see features of the Sun, such as sunspots

to collect samples from the surface of planets

to measure the surface temperature of planets

to find out whether a planet has water beneath its surface

7. What causes day and night on Earth?

Earth's tilted axis

Earth's revolution around the Sun

Earth's elliptical path around the Sun

Earth's rotation on its axis every 25 hours

8.

### Planet Diameters

Planet	Diameter (compared to Earth)
Venus	0.9
Earth	1.0
Mars	0.5

The table above shows the sizes of Mars and Venus compared to Earth. Larger planets have stronger gravitational pull than smaller planets. Gravitational pull holds gases close to a planet, creating a thicker atmosphere. How do you think the atmosphere of Mars compares to that of Earth or Venus?

It is thicker than the atmosphere of either Earth or Venus.

It is thinner than the atmosphere of either Earth or Venus.

It is thicker than the atmosphere of Venus but thinner than the atmosphere of Earth.

It is thinner than the atmosphere of Venus but thicker than the atmosphere of Earth.

9. What helps make life on Earth possible?

Earth's atmosphere prevents Earth from overheating.

Earth rotates slowly on its axis.

Earth's surface has drastic temperature changes.

Earth is a very large planet.

10. For which of the following is Galileo famous?

He gathered evidence that Earth revolves around the Sun.

He built the reflecting telescope.

He discovered that the Moon has phases.

He discovered the planet Uranus.