

The Solar System ▪ *Reading/Notetaking Guide***The Inner Planets** (pp. 552–559)

This section describes the main characteristics of the four planets closest to the sun.

Use Target Reading Skills

As you read, complete the outline about the inner planets. Use the red headings for the main ideas and the blue headings for subtopics.

The Inner Planets
I. Earth
A. Water
B. Atmosphere
II.
A.
B.
III.
A.
B.
C.
IV.
A.
B.
C.
D.
E.
F.

Introduction (p. 552)

1. Which planets are often called the terrestrial planets?

2. What are three similarities among the inner planets?

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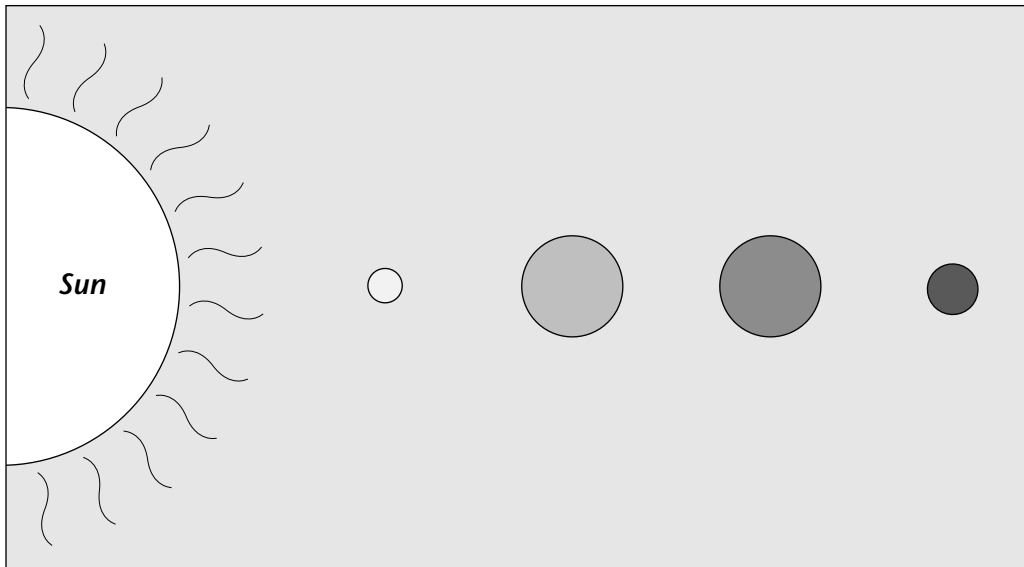
The Inner Planets *(continued)*

Use the table “The Inner Planets” in your textbook to answer questions 3 and 4.

3. Rank the inner planets according to diameter. Rank the planet with the greatest diameter as 1.

_____ Mercury _____ Venus _____ Earth _____ Mars

4. Which planet rotates on its axis in about the same amount of time that Earth does? _____
5. The drawing below shows the sun and the four inner planets. Label the inner planets according to their average distance from the sun.



Earth (pp. 552–553)

6. Circle the letter of each sentence that is true about Earth.
- a. About 70 percent of its surface is covered with water.
 - b. Its atmosphere extends about 1 kilometer above its surface.
 - c. Most of the atmosphere is composed of oxygen gas.
 - d. No other planet in the solar system has oceans like Earth's.
7. What are the three main layers of Earth?
- a. _____ b. _____
- c. _____
8. What is Earth's dense inner core made of? _____

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Mercury (p. 554)

9. Circle the letter of each sentence that is true about Mercury.
 - a. Mercury's surface has many craters.
 - b. Mercury has no moons.
 - c. The interior of Mercury is composed mostly of the element mercury.
 - d. Mercury is the planet closest to the sun.
10. Why does Mercury have a greater range of temperatures than any other planet?

Venus (pp. 555–556)

11. Because Venus is often a bright object in the west after sunset, it is sometimes called the _____.
12. Why is Venus sometimes called "Earth's twin"?

13. Circle the letter of the gas that makes up most of the atmosphere of the planet Venus.
 - a. oxygen
 - b. nitrogen
 - c. sulfuric acid
 - d. carbon dioxide
14. How is the rotation of Venus different from that of most other planets and moons?

15. Is the following sentence true or false? The atmosphere of Venus is so thick that there is never a sunny day on its surface.

16. The trapping of heat by the atmosphere of Venus is called the _____.

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17. Why is Mars called the “red planet”?

18. The atmosphere on Mars is composed mostly of _____.

19. Is the following sentence true or false? There are no canals on Mars.

20. Why do some regions on Mars look darker than others?

21. Circle the letter of each sentence that is true about Mars.

- a. Mars’s polar ice caps contain frozen water and carbon dioxide.
- b. Mars has seasons because it is tilted on its axis.
- c. Mars has many large oceans on its surface.
- d. Mars has giant volcanoes on its surface.

22. What are the two moons of Mars?

- a. _____ b. _____

23. Complete the table to compare and contrast characteristics of Earth and Mars.

Characteristics of Earth and Mars		
Characteristic	Earth	Mars
Atmosphere	Mostly nitrogen and oxygen	a.
Moons	One	b.
Seasons	c.	Yes
Surface	Solid and rocky	d.
Water	e.	At poles and possibly underground

f. Use the table to identify which characteristics of Mars would make it difficult or impossible for humans to live there without life support.
