

Chapter 23 Touring Our Solar System

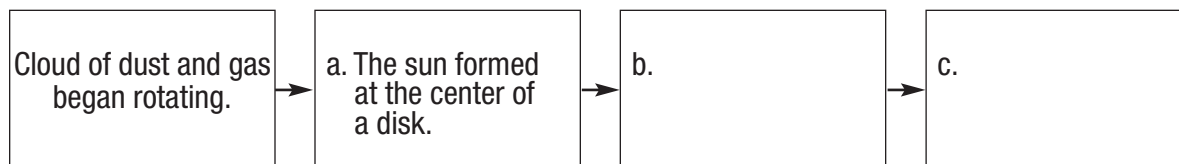
Section 23.1 The Solar System

(pages 644–648)

This section gives an overview of the planets of the solar system and describes the nebular theory of the formation of the solar system.

Reading Strategy (page 644)

Relating Text and Diagrams Complete the flowchart on the formation of the solar system. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.



- Use the terms below to fill in the blank. Almost all of the mass of the solar system is within the _____.

sun	moon	Jovian planets
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- Is the following sentence true or false? The farther a planet is from the sun, the shorter its period of revolution. _____

The Planets: An Overview (pages 645–647)

- Which is NOT one of the differences between terrestrial and Jovian planets? Circle the correct answer.

rate of rotation size density shape composition

- Indicate whether each of the following planets is a terrestrial planet or a Jovian planet.

a. Saturn _____	e. Mars _____
b. Venus _____	f. Neptune _____
c. Mercury _____	g. Jupiter _____
d. Uranus _____	

- The _____ planets are relatively small and rocky.
- Is the following sentence true or false? The Jovian planets are huge, rocky giants. _____

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7. The Jovian planets have much thicker atmospheres than the terrestrial planets because they have much higher surface gravities and _____.

8. Complete the table below.

Characteristic	Terrestrial Planets	Jovian Planets
Comparative size		
Density (compared to water)	about five times the density of water	
Interior composition		mostly gases and ices
Atmosphere thickness		

Formation of the Solar System (pages 647–648)

9. Use the terms below to fill in the blank. A(n) _____ is a cloud of dust and gas in space.

Jovian planet	nebula	planetesimal
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10.  Is the following sentence true or false? The nebular theory says that the sun and planets formed from a rotating disk of dust and gases.

_____.

11. Circle the letter of the term for small, irregularly shaped bodies.

- a. planet
- b. ice
- c. planetesimal

12. Is the following sentence true or false? The inner planets formed mainly from metals and silicate minerals because of the high temperatures near the sun. _____