

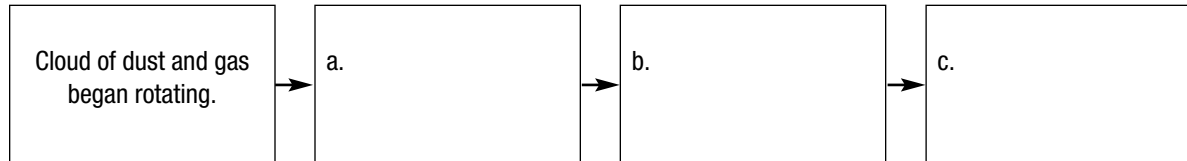
**Chapter 23 Touring Our Solar System**

**Section 23.1 The Solar System**

*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**

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.



1. Almost all of the mass of the solar system is within the \_\_\_\_\_.
2. Is the following sentence true or false? The farther a planet is from the sun, the shorter its period of revolution. \_\_\_\_\_
3. List the planets whose orbital planes lie more than 3 degrees from the plane of the sun’s equator. \_\_\_\_\_

**The Planets: An Overview**

4. 🚗 List the main differences between the terrestrial and Jovian planets.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
5. Indicate whether each of the following planets is a terrestrial planet, a Jovian planet, or neither.
  - a. Saturn \_\_\_\_\_
  - b. Venus \_\_\_\_\_
  - c. Pluto \_\_\_\_\_
  - d. Mercury \_\_\_\_\_
  - e. Uranus \_\_\_\_\_
  - f. Mars \_\_\_\_\_
  - g. Neptune \_\_\_\_\_
  - h. Jupiter \_\_\_\_\_
6. The \_\_\_\_\_ planets are relatively small and rocky.
7. Is the following sentence true or false? The Jovian planets are huge, rocky giants. \_\_\_\_\_
8. List the groups of substances that make up the planets. \_\_\_\_\_

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9. Give two reasons why the Jovian planets have much thicker atmospheres than the terrestrial planets. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

10. To escape from a planet’s gravity, an object must reach a speed called the \_\_\_\_\_.

11. Complete the table below.

Characteristic	Terrestrial Planets	Jovian Planets
Comparative size		
Density (compared to water)		
Interior composition		
Atmosphere thickness		

**Formation of the Solar System**

12. A(n) \_\_\_\_\_ is a cloud of dust and gas in space.

13. Describe the nebular theory of the formation of the solar system. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

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

15. 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. \_\_\_\_\_

16. The Jovian planets contain large quantities of ices because it was \_\_\_\_\_ enough in the outer solar system for ices to form.