

**Elements and the Periodic Table** ▪ *Reading/Notetaking Guide***Nonmetals, Inert Gases, and Semimetals** (pp. 148–155)

*This section describes the properties of the elements in the periodic table that are not metals.*

**Use Target Reading Skills**

*As you read, complete the outline about nonmetals, inert gases, and semimetals. Use the red headings for the main ideas and the blue headings for subtopics when possible. Add supporting details.*

Nonmetals, Inert Gases, and Semimetals
I. Properties of Nonmetals
A. Physical Properties
B.
II.
A.
B.
C.
D.
III.
A.
B.
IV.
A.
B.
V.
A.
B.

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# **Nonmetals, Inert Gases, and Semimetals** *(continued)*

## **Properties of Nonmetals** (pp. 149–150)

1. The elements that lack most of the properties of metals are called \_\_\_\_\_.
2. Where are the nonmetals located on the periodic table?  
\_\_\_\_\_  
\_\_\_\_\_
3. Is the following sentence true or false? Four of the nonmetals are gases at room temperature. \_\_\_\_\_
4. Circle the letter of each sentence that is true about the physical properties of nonmetals.
  - a. Solid nonmetals are brittle.
  - b. They usually have lower densities than metals.
  - c. Most are shiny.
  - d. They are good conductors of both heat and electricity.
5. When nonmetals and metals react, which atoms gain electrons? \_\_\_\_\_

## **Families With Nonmetals** (pp. 150–153)

6. Circle the letter of the number of electrons that an atom in the carbon family can gain, lose, or share.
 

a. 1	b. 4
c. 5	d. 6
7. What kinds of molecules are found in all living things?  
\_\_\_\_\_  
\_\_\_\_\_
8. Circle the letter of the number of electrons that an atom in the nitrogen family usually gains or shares.
 

a. 2	b. 7
c. 5	d. 3
9. The atmosphere is almost 80 percent \_\_\_\_\_.
10. A molecule composed of two atoms is called a(n) \_\_\_\_\_.



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**Nonmetals, Inert Gases, and Semimetals** *(continued)*

**Hydrogen** (p. 154)

17. How many protons and electrons does a hydrogen atom have?

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18. Why can't hydrogen be grouped in a family?

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**Semimetals** (p. 155)

19. What are semimetals?

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20. What is the most common semimetal? \_\_\_\_\_

21. What is the most useful property of the semimetals?

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22. What are semiconductors?

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