

# Directed Reading A

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## Section: Covalent and Metallic Bonds

### COVALENT BONDS

- \_\_\_\_\_ 1. What is formed when atoms share one or more pairs of electrons?
- a. covalent bond
  - b. covalent compound
  - c. ionic bond
  - d. electric bond
- \_\_\_\_\_ 2. What usually consists of two or more atoms joined in a definite ratio?
- a. bond
  - b. valence electron
  - c. atom
  - d. molecule
3. A model that shows only the valence electrons in an atom is a(n)

\_\_\_\_\_

### COVALENT COMPOUNDS AND MOLECULES

4. What is the relationship between diatomic molecules and diatomic elements?  
Name one example of a diatomic element.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. What is the smallest particle into which covalent bonds can be divided?

\_\_\_\_\_

6. Name two examples of complex molecules.

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### METALLIC BONDS

7. A bond formed by the attraction between positively-charged metal ions and the electrons in the metal is a(n) \_\_\_\_\_

8. What allows valence electrons in metals to move throughout the metal?

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Directed Reading A *continued*

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**PROPERTIES OF METALS**

- \_\_\_\_\_ 9. What property gives metals the ability to be drawn into wires?
- a. malleability
  - b. conductivity
  - c. ductility
  - d. electricity

10. The property of \_\_\_\_\_ means that the metal can be hammered into sheets.

11. Give an example of how metallic bonding allows metals to conduct electric current.

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12. Why doesn't a piece of metal break when it is bent?

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