

## Skills Worksheet

**Directed Reading B****Section: Elements** (pp. 134–137)**ELEMENTS, THE SIMPLEST SUBSTANCES**

1. A pure substance that cannot be separated into simpler substances by physical or chemical means is called a(n) **elements**.
2. A substance in which all of the “building-block” particles are identical is called a(n) **pure** substance.
3. The building-block particles for elements are called **atoms**.

**CLASSIFYING ELEMENTS**

4. The amount of an element present does not affect the element's **characteristic properties**.
5. Why does a helium-filled balloon float up when it is released?

Helium is an elemental gas that is less dense than air.  
Air is 80% nitrogen.

Look at each property listed below. If it is a characteristic property of elements, write **CP** in the space provided. If it is not a characteristic property, write **N**.

- N** 6. size
- CP** 7. melting point
- CP** 8. density
- N** 9. shape
- N** 10. mass
- N** 11. volume
- CP** 12. color
- CP** 13. hardness
- CP** 14. flammability
- N** 15. weight
- CP** 16. reactivity with acid

**Directed Reading B** *continued*

**GROUPING ELEMENTS**

17. What are two common properties that most terriers share?

small in size and have short hair

18. All elements can be classified as metals, metalloids, or

Nonmetals

19. An element that is shiny and that conducts heat and electricity well is called

a(n) metal

20. An element that conducts heat and electricity poorly is called

a(n) nonmetal

21. Elements that have properties of both metals and nonmetals

are called metalloids or semimetals

**Indicate whether the description applies to a metal, a nonmetal, or a metalloid.**

**Write the correct letter in the space provided. Letters can be used more than once.**

metals 22. are malleable

a. metalloids

metalloids 23. are dull or shiny

b. nonmetals

nonmetals 24. are poor conductors

c. metals

nonmetals 25. tend to be brittle and unmalleable as solids

metals 26. are almost always shiny

metalloids 27. are also called semimetals

nonmetals 28. are almost always dull

metalloids 29. are somewhat ductile

metalloids 30. include boron, silicon, antimony

metals 31. include lead, tin, copper

nonmetals 32. include sulfur, iodine, neon