

Directed Reading A

Section: Elements

- _____ 1. Which of the following is NOT a physical or chemical change?
- a. crushing
 - b. weighing
 - c. melting
 - d. passing electric current

ELEMENTS, THE SIMPLEST SUBSTANCES

2. A pure substance that cannot be separated into simpler substances by physical or chemical means is a(n)_____.
3. A substance that contains only one type of particle is a(n)_____.

PROPERTIES OF ELEMENTS

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

Look at each property listed below. If it is a characteristic property of elements, write CP on the line. If it is not a characteristic property, write N.

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

Directed Reading A *continued*

CLASSIFYING ELEMENTS BY THEIR PROPERTIES

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

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

_____.

19. An element that is shiny and that conducts heat and electric current well is

a(n)_____.

20. An element that conducts heat and electric current poorly, and can be a solid,

liquid, or gas is a(n) _____.

21. Elements that have properties of both metals and nonmetals

are_____.

**Indicate whether the description applies to a metal, a nonmetal, or a metalloid.
Write the correct letter in the space provided.**

_____ 22. are malleable a. metalloids

_____ 23. are dull or shiny b. nonmetals

_____ 24. are poor conductors c. metals

_____ 25. tend to be brittle and unmalleable as
solids

_____ 26. are always shiny

_____ 27. are also called semiconductors

_____ 28. are always dull

_____ 29. are somewhat ductile

_____ 30. include boron, silicon, antimony

_____ 31. include lead, tin, copper

_____ 32. include sulfur, iodine, neon