# Answer Key

## Directed Reading A

### SECTION: ELEMENTS

1. B
2. element
3. pure substance
4. characteristic properties
5. A helium-filled balloon will float up when released because helium is less dense than air.
6. N
7. CP
8. CP
9. N
10. N
11. N
12. CP
13. CP
14. CP
15. N
16. CP
17. Answers may vary. Sample answer: Terriers are small, and they have short hair.
18. nonmetals
19. metal
20. nonmetal
21. metalloids
22. C
23. A
24. B
25. B
26. C
27. A
28. B
29. A
30. A
31. C
32. B

### SECTION: COMPOUNDS

1. Answers may vary. Sample answer: salt, water, and sugar
2. C
3. compound
4. elements
5. B
6. Answers may vary. Sample answer: A compound has different properties from the elements that react to form it. Although sodium and chlorine are dangerous individually, they combine to form sodium chloride, a safe substance also known as table salt.
7. B
8. A
9. C
10. carbonic acid
11. carbon, oxygen, and hydrogen
12. chemical
13. aluminum oxide
14. carbon dioxide

### SECTION: MIXTURES

1. mixture
2. mixture
3. compound
4. Answers may vary. Sample answer: You can see each component in the pizza. Each component has the same chemical makeup as it did before the pizza was made.
5. physical
6. A
7. B
8. D
9. C
10. ratio
11. D
12. dissolving
13. solute, solvent
14. soluble
15. solvent
16. alloy
17. Answers may vary. Sample answer: Particles in solution are so small that they can never settle out, cannot be removed or filtered out, and cannot scatter light.
18. concentration
19. A dilute solution contains less solute than a concentrated solution does.
20. solubility
21. D
22. A
23. increase
24. decrease
25. You can heat the solution, mix the solution by stirring or shaking it, or crush the sugar before adding it.
26. A
27. Answers may vary. Sample answer: Unless the globe is shaken, the snow particles will not stay dispersed and will settle at the bottom.
28. Gelatin, milk, and stick deodorant are all colloids.

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