Answer Key

Directed Reading A

SECTION: DEVELOPMENT OF THE ATOMIC THEORY

1. D
2. C
3. Aristotle disagreed with Democritus. At the time, Aristotle had more influence on what people thought than Democritus did. Consequently, people believed Aristotle.
4. atom
5. C
6. Dalton's results suggested that elements combine in specific proportions because they are made of single atoms.
7. positively, negative
8. electrons
9. atom
10. A
11. Most of the particles passed right through the gold foil, some of the particles were deflected, and some of the particles bounced straight back.
12. D
13. nucleus
14. Electron clouds are regions inside the atom where electrons are likely to be found.

SECTION: THE ATOM

1. B
2. F
3. D
4. E
5. A
6. C
7. B
8. hydrogen, proton, electron (no particular order for proton and electron)
9. nucleus
10. helium
11. protons and neutrons (either order)
12. atomic number
13. A
14. B
15. B
16. C
17. isotopes
18. atomic mass
19. C
20. A
21. D
22. B

Directed Reading B

SECTION: DEVELOPMENT OF ATOMIC THEORY

1. D
2. C
3. C
4. A
5. D
6. B
7. positively
8. particles
9. electrons
10. A
11. A
12. B
13. A
14. B
15. A
16. D
17. A

SECTION: THE ATOM

1. B
2. D
3. C
4. A
5. B
6. hydrogen
7. electron
8. helium
9. neutrons
10. atomic number
11. atomic mass unit
12. A
13. B
14. C
15. B
16. C
17. mass number
18. atomic mass
19. strong force
20. gravitational force
21. weak force
22. electromagnetic force

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