ACTIVITY ANSWER KEY

Chapter 7, Section 1

Check your answers from the Answer Key.
Correct all errors, then complete your next goal.

Lesson 1: *Elements*
Exploring the Periodic Table

1. (d) ***valence*** and ***atomic weight***
2. (c) predicted the existence of missing elements and described their properties
3. (b) False
4. (d) ***semiconductor***
5. (b) Dmitri Mendeleev

6-23. Refer to the Periodic Table of the Elements located on the back cover of your book

24. horizontal row
25. period
26. (b) ***inert*** gas
27. metals
28. (a) True
29. (a) 2
30. (d) fit on a page better that way
31. vertical column
32. family
33. (a) +1
34. less
35. (c) +2
36. (d) –1
37. (d) 0
38. *"The important thing is not to stop questioning."*

Lesson 2: *Elements*
Element's Fingerprints

1. ten
2. (b) False
3. (b) False
4. telescopes
5. (a) dark lines that crossed the sun's spectrum
6. (b) False
7. Bunsen burner
8. (d) produced a hot, steady flame
9. flame test
10. (a) True
11. (b) False
12. (c) use of the spectroscope
13. (a) color of their lines in the spectroscope
14. dispersion
15. (b) differences in the index of refraction for different colors of light
16. (a) True
17. (c) *constructive* and *destructive* ***interference*** of light
18. diffraction gratings
19. diffraction gratings
20. *"Life is not just an accident based on random processes."*

Lesson 3: *Elements*
The Noble Gases—Argon

1. (c) slows the vaporization of hot tungsten
2. (b) argon in light bulbs
3. (b) False
4. (d) sending an electric spark through the air
5. nitrogen
6. (a) True

7. (b) two
8. O_3
9. pure nitrogen
10. less
11. spectroscope
12. (c) inert
13. (c) argon
14. (a) argon
15. (a) the atmosphere
16. one
17. (b) helium
18. Noble
19. (b) False
20. *"Judge each day not by the harvest you reap, but by the seeds that you plant."*



Lesson 4: *Elements*
The Noble Gas Family

1. *He*
2. (b) not explosive
3. 240
4. (b) bends
5. nitrogen
6. (b) does not dissolve under pressure as readily as nitrogen
7. (d) offers less resistance than the atmosphere
8. (a) gas
9. liquid
10. (b) natural gas
11. (b) ***fractional distillation*** of air
12. *Kr*
13. (c) it penetrates haze and fog
14. (d) some country is secretly building nuclear weapons
15. (c) new
16. *Ne*
17. (c) in glowing advertising signs
18. *Xe*
19. *Rn*
20. (b) radon
22. (b) False
23. *"The noblest exercise of the mind within doors, and most befitting a person of quality, is study."*



Lesson 5: *Compounds*
Chemical Bonds

1. xenon
2. (b) False
3. less
4. heavier
5. (c) radioactive
6. Fluorine
7. catalyst
8. (d) krypton
9. share
10. valence
11. (c) +1

12-27.

H							He
1							0
Li	Be	B	C	N	O	F	Ne
1	2	3	4	3	2	1	0
Na	Mg	Al	Si	P	S	Cl	Ar
1	2	3	4	3	2	1	0

28. (b) release an electron
29. (a) accept an electron
30. chlorine
31. opposite
32. water (H_2O)
33. covalent
34. *"Ordinary people believe only in the possible. Extraordinary people visualize not what is possible or probable, but rather what is impossible."*

Ask for your QUIZ over Section 1.
Reminder: Students who score 85% or higher on the three section quizzes may be exempt from the chapter test!