ACTIVITY ANSWER KEY

Chapter 3, Section 2

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

Lesson 6: *Elements*

Elements and Compounds

1. (c) French
2. (d) It has luster and great value.
3. (a) atom
4. (either order within categories) egg yolk and mercury; sulfur and lead
5. chemical properties
6. (c) exactly alike
7. 92
8. (a) atoms
9. (c) Ingredients are chemically combined.
10. (a) Both are composed of two or more substances.
11. (wording may vary)
    ***Mixtures* are** physically combined, **and** retain their identities.
    ***Compounds* are** chemically combined, **and** their identities are altered.
12. chemical symbol
13. formulas, ratios
14. carbon
15. oxygen
16. carbon dioxide
17. water
18. hydrogen
19. methane
20. carbon monoxide
21. hydrogen peroxide
22. "*The compound of happiness is composed of the elements love, forgiveness and gratitude.*"

Lesson 7: *Compounds*

Atoms and Molecules

1. (c) She made a copy of the map.
2. Friction
3. (d) Reactions serve to divide compounds into their original elements.
4. A molecule is a combination of the atoms of 2 or more elements.
5. sodium and chlorine
6. (c) identical molecules
7. They always appear in the same ratio.
8. 6 carbon to 12 hydrogen to 6 oxygen
9. 1 carbon to 4 hydrogen
10. 4 carbon to 10 hydrogen
11. 1 carbon to 2 oxygen
12. 2 hydrogen to 1 oxygen
13. ___ They allow molecules . . . .
    _X_ Original molecules/atoms . . . .
    _X_ New molecules/compounds . . . .
    ___ Molecules are only phys . . . .
14. create, destroy
15. _c_ ***proton***
16. _b_ ***neutron***
17. _a_ ***electron***
18. atomic number, whole
19. electrically neutral; protons, electrons
20. neutral, positive ion
21. neutral, negative ion
22. (b) document the status of the mill
23. *"Dropping negative attitudes allows us to become more positive."*

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Lesson 8: *Compounds*

Chemical Bonds

1. (wording may vary) a village on Shell Island
2. (d) a fresh footprint
3. Niépce; Daguerre, 1800s
4. (c) thin sheets of metal
5. (d) John Herschel
6. silver and bromine
7. static electricity
8. _c_ ***ionic compounds***
9. _a_ ***covalent bonds***
10. _b_ ***covalent compounds***
11. carbon
12. carbon
13. electrons, carbon
14. 4, 3-dimensional
15. 3, 2-dimensional layer
16. weaker, dry lubricant
17. compounds
18. chemical reactions, compounds

Element	Active	Inert
19. silver	X	
20. helium		X
21. bromine	X	
22. oxygen	X	
23. hydrogen	X	
24. carbon	X	

25. _X_ process of elimination
    _X_ contrast and comparison
    ___ constructive criticism
    ___ cause and effect
26. *"To bring out the best in yourself, bond with people of high character."*

Lesson 9: *Elements*

Metals

1. _4_ noted the needed repairs
    _7_ noticed smoke from the chimney
    _2_ measured and sketched the mill
    _8_ noticed movement in the house
    _3_ described the buildings in writing
    _1_ set up their tents
    _6_ noticed the "no trespassing" sign
    _5_ walked uphill to the house
2. (any order) protecting plants and animals, preserving historical sites, recreation
3. Metals
4. _c_ Copper
5. _f_ ***Bronze***
6. _g_ ***Alloy***
7. _b_ ***Stone Age***
8. _e_ ***Bronze Age***
9. _a_ ***Brass***
10. _d_ ***Iron Age***
11. ___ Did dinosaurs make the hammer?
    _X_ Are geologic time tables. . . .
    _X_ Did dinosaurs and man coexist?
    _X_ Did a cataclysmic event. . . .
    _X_ Was ancient man an. . . .
12. stratum
13. (c) strain to strawberry
14. cast iron
15. carbon; steel
16. (any order) shine, sheen, gloss
17. (b) It is apt to tarnish quickly.
18. (b) silver
19. gold, silver, copper
20. gold; copper
21. liquid at room temperature
22. bauxite, electricity, easily
23. iron, aluminum
24. Aluminum, lightweight, low cost
25. (b) definition 2
26. "*Progress consists largely of learning to apply laws and truths that have always existed.*"

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Lesson 10: *Elements*

Families of Elements

1. (d) using analytical thought processes
2. elements; compounds
3. physical; chemical

Properties	Chemical	Physical
4. weight or mass		X
5. boiling/freezing temperatures		X
6. solvency (power to dissolve substances)		X
7. heat/electricity conducting		X
8. active or inert	X	
9. make compounds with oxygen	X	
10. formation of acids, bases, salts	X	
11. appearance		X
12. brittleness	X	
13. electrons exchanged	X	

14. Russian, Dmitri Mendeleev, 1800s
15. chemical families
16. (c) their chemical properties

Family members	Family name	Roman numeral
17. Lithium—Francium	sodium	I
18. Fluorine—Astitine	halogen	VII
19. Helium—Radon	noble gases	VIII

20. hydrogen; unique characteristics
21. (d) simplest
22. (d) They bubble to the surface of liquids.
23. industrial (or manufacturing or chemical), grease, digestive, sour (or tart)
24. pH meter, litmus
25. (c) They discovered a loose board in a closet.
26. *"A person is known and evaluated by his family name and by the company he keeps."*

Ask for your QUIZ over Section 2.
Reminder: Students who score 85% or higher on the three section quizzes may be exempt from the chapter test!

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