ACTIVITY ANSWER KEY

Chapter 3, Section 3

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



Lesson 11: *Compounds*
Acids, Bases and Salts

1. (c) The boys wanted to keep the packs out of reach of bears.
2. (d) a narrow, steep sided valley or canyon

Name	Type/Strength	Source/Use
3. citric	weak	citrus fruit (or food)
4. sulfuric	strong	batteries,paints, fertilizers, explosives
5. hydrofluoric	strong	etching glass

6. remove grease, corrode metals, turns blue litmus paper red
7. acid; neutralizes
8. (c) a prefix meaning against, a variation of anti—as in antacid, antagonist
9. bitter; soapy; blue
10. hydrogen

Chemical Name	Common Name/ Product	Type or Strength	Use
11. ammonium hydroxide	ammonia	strong	household cleaners
12. sodium hydroxide	lye	strong	soap, drain cleaners
13. sodium bicarbonate	baking soda	weak	antacid

14. baking (or cooking)
15. table salt
16. _Na_ + _Cl_ ⟶ _NaCl_
17. ___ They both become weaker.
    ___ They both become stronger.
    _X_ They neutralize each other.
    _X_ A salt and water are formed.
18. salt, pay
19. *"Wise people strive to be efficient and 'worth their salt'."*



Lesson 12: *Compounds*
Atomic Science

1. (d) they feared vandals or treasure hunters would damage the site
2. drawings; writings
3. (d) of what an atom looked like
4. (c) Spherical Model
5. (a) Planetary Model
6. (b) Orbital model
7. specific orbit, energy state
8. (wording may vary) a cloud of electrons around the nucleus
9. (b) electrons
10. protons
11. neutral; charge
12. protons; neutrons
13. (b) False
14. (a) True

15. (d) Their extra neutrons do not allow them to form compounds with other elements.
16. _X_ carbon-12
    ___ $carbon_{14}$
    _X_ uranium-238
    ___ $carbon_{12}$
17. (b) the wrong mix of neutrons and protons
18. comes apart; smaller atoms; high-speed, sub-atomic
19. 25,000 miles per second
20. nucleus
21. ___ naturally occurring
    _X_ artificial
    _X_ radioactive
    ___ very stable
    _X_ unstable
22. (b) electricity
23. (c) 20,000,000-40,000,000
24. (a) spoke of similarities between the two items
25. *"A stable person endures life's changes without a sense of great adversity."*



Lesson 13: *Energy*
Making Electricity

1. (d) Who could have made the markings?
2. (a) True
3. (c) flow of the electrons
4. light; electrons
5. electricity; sunlight
6. positive electrode
7. negative electrode
8. ____ (a) They are inexpensive to . . . .
   _X_ (b) They are good to use . . . .
   _X_ (c) Solar batteries have to be . . . .
   ____ (d) Solar cells show great . . . .
9. (any order) sunlight, friction, chemical
10. chemical
11. (any order) negative, positive, lead (or metal) sheets, sulfuric acid, water
12. (a) True
13. water
14. (d) atoms
15. (a) Electrons
16. Electrons
17. electricity, metal sulfate
18. (a) True
19. (c) to charge again with electricity
20. (b) 1835-1875
21. (a) True
22. ____ solar energy
    ____ friction
    _X_ chemical means (batteries)
    _X_ electric generators
    ____ squeezing crystals
23. (c) to be speechless with amazement
24. *"The best way to overcome your own problems is to help someone else overcome his problems."*



Lesson 14: *Energy*
Using Electricity

1. (a) the mysterious town did not exist
2. light
3. arc lamp; 1800s
4. (a) True
5. (d) home use
6. Thomas Edison; 1879
7. longer-lasting filament; brittle
8. early 1900s
9. lightning
10. _c_ incandescent
11. _a_ fluorescent
12. _d_ neon
13. _b_ arc lamp
14. (a) True
15. (any order) Light, mechanical motion, heat, magnetism

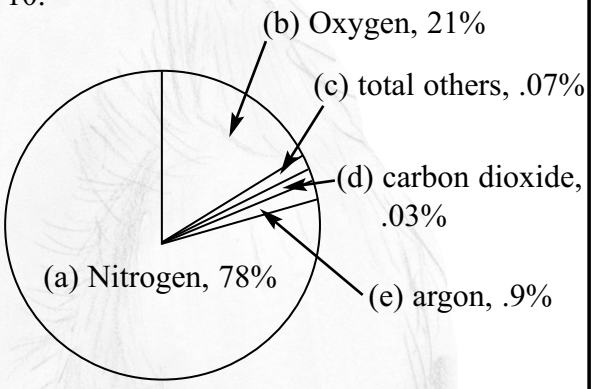
16. _X_ has north and south poles
    ___ has east and west poles
    _X_ poles were named from . . . .
    _X_ unlike magnetic poles . . . .
    _X_ like magnetic poles repel . . . .
    _X_ either pole attracts iron
17. Electromagnets
18. electromagnets
19. static electricity
20. _3_ dry ink or colored particles . . . .
    _7_ paper to be printed picks . . . .
    _1_ image to be printed is drawn . . . .
    _2_ electrons neutralize static . . . .
    _5_ ink falls away from blank . . . .
    _4_ ink particles stick where metal. . . .
    _6_ paper is pressed against metal. . . .
21. (d) lightning
22. their map of the island
23. *"It is better to light a candle than to curse the darkness."*



Lesson 15: *Geology*

Three Spheres

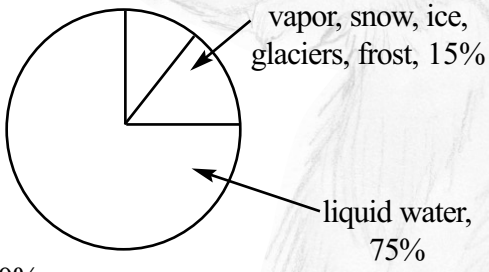
1. that was where the copper mine was opened later
2. Topographical maps—show surface of lithosphere
   (a) Show natural features
      (1) shape of land
      (2) elevation above sea level
      (3) small bodies of water
   (b) Show man-made features
      (1) towns and cities
      (2) roads
      (3) railroads
      (4) airfields
      (5) power lines
      (any order)
   (c) Different colors indicate
      (1) open fields
      (2) forests
      (3) deserts
      (any order)
   (d) Commonly called topo maps
3. Nautical charts—deal with hydrosphere
   (a) Deal with large bodies of water
   (b) Provide information for navigation about possible hazards
      (any order)
      (1) depth of water at low tide
      (2) location of islands
      (3) location of rocks
      (4) location of wrecks
   (c) Show aids to navigation
      (any order)
      (1) lighthouses
      (2) channel markers
4. Meteorological charts—deal with the atmosphere
   (a) Show
      (1) wind speed and direction
      (any order)
      (2) temperature
      (3) humidity
      (4) air pressure
   (b) Used in weather forecasting
5. _b_ ***atmosphere***
6. _c_ ***hydrosphere***
7. _a_ ***lithosphere***
8. troposphere; 10 miles (or 16 kilometers)
9. troposphere
10.



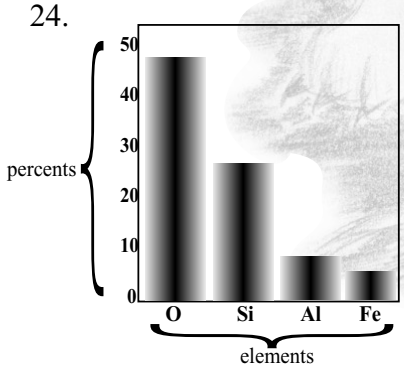
11. (b) Subtract the total percentages given in your text from 100%.
12. (wording may vary) Make sure all percentages add up to 100%.

13. **Mostly the same at all levels**	14. **Most abundant at lower levels**	15. **Most abundant at upper levels**
nitrogen	water vapor	ozone
oxygen	dust and ash	hydrogen
carbon dioxide	salt and sulfur	

16. (any order)
    solid (ice or glacier)
    liquid (water)
    gas (clouds, fog or vapor)
17. _X_ (a) It includes all forms . . .
    _X_ (b) Water is the most abundant. . .
    _X_ (c) Liquid water covers about . . .
    _X_ (d) Liquid water, glaciers . . .
    ___ (e) The hydrosphere overlaps . . .
18. (positions of lines may vary)



19. 10%
20. No other planet in the solar system has water in all three states as solid, liquid and gas.; The Earth is a marvelous planet, uniquely designed to support life.
21. (any order) hydrogen, oxygen, chlorine, sodium
22. water; salt
23. (c) lithosphere
24.



25. 88%, 12%
26. elements
27. (order may vary) potassium, aluminum, silicon, oxygen
28. (b) oxygen
29. oxygen
30. nitrogen
31. (a) It is one of the least active/reactive elements.
32. (c) the original of the lost map
33. *"Your attitude determines your altitude in life."*

Ask for your QUIZ over Section 3.
Reminder: Students who score 85% or higher on the three section quizzes may be exempt from the chapter test!