ACTIVITY ANSWER KEY

Chapter 3, Section 1

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

Lesson 1: *Biology*

Resources

1. (b) earn money for a ski trip
2. (c) He was the son of a slave woman who was kidnapped, then rescued; he was physically weakened; he helped his foster mother in her garden; he became skilled with plants; he supported himself through high school.
3. (b) He graduated from college, became an expert in plants, improved farming methods, invented new products from the peanut and sweet potato.
4. (b) the study of plants
5. (d) rotate crops, replace depleted minerals in soil and plow under some of the crops to put nutrients back into the soil
6. (b) Depleted minerals will be replaced in the soil.
7. (a) peanuts and sweet potatoes
8. "God's Little Workshop"
9. (a) True
10. humble, help
11. resource
12. soil
13. depleted, nourish
14. Rotating crops, nourishment
15. peanuts, sweet potatoes
16. (b) False
17. The soil can be used over and over again.
18. water
19. (a) True
20. (a) True
21. (c) occur in nature
22. _b_ Fossil fuels
23. _a_ Solar energy
24. _c_ Fish and Game Laws
25. fish, energy
26. _X_ Both had few finances
    _X_ Both liked to work with plants
    ___ Both had helped grandparents
    _X_ Both were good workers
27. *"Waste not, want not."*

Lesson 2: *Biology*

Variety Everywhere

1. (c) start a landscaping service
2. sequoia, pine, cactus, cherry trees
3. (b) walls; membranes
4. (b) cell wall
5. _X_ manufacture food
   _X_ contain chlorophyll
   ___ manufacture photosynthesis
   ___ absorb sunlight
6. (e) only a and c
7. (c) photosynthesis
8. (a) leaves
9. (b) Water and carbon dioxide combine with chlorophyll and sunlight, causing a chemical change that produces food.
10. anchor
11. root
12. plant
13. food
14. support
15. (a) carry water, minerals and food throughout the plant
16. (a) True

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17. (a) True
18. (b) False
19. (a) True
20. (a) True
21. contrast
22. contrast
23. contrast
24. contrast
25. compare
26. *"Variety is the spice of life."*
27. (d) from a Cherokee leader
28. (d) big tree
29. (c) three
30. (b) along the Pacific Coast
31. (c) Dawn Redwood
32. (c) needle-like
33. (a) 84 m



Lesson 3: *Biology*
Cycles

1. (a) You began your business and gained a few customers.
2. (c) the soil
3. (any order) living, once-living, nonliving
4. 80,000
5. 50, 100
6. Wind, water
7. Erosion
8. topsoil
9. Compost, roots
10. (c) They loosen the soil; when they die, their bodies provide nutrients.
11. plants, animals
12. environment
13. (any order) mold, mushrooms, bacteria
14. (any order) water, carbon, oxygen, nitrogen
15. (b) False
16. (a) the movement of nitrogen through an ecosystem
17. (d) Nitrogen passes from the air to living things, then back into the air.
18. (a) Plant roots extract nitrogen from the soil. → The nitrogen is changed into nitrates. → . . .
19. (b) nitrogen and oxygen
20. (c) protein
21. (a) They are released into the soil; some are absorbed by the soil, some are used by plants.
22. (b) Lightning forces nitrogen and oxygen to fuse, forming nitrates. The nitrates combine with rainwater, making the nitrate fall to the ground to be used by plants.
23. __ in the decomposed remains. . .
    X in the air when . . .
    X in the roots of . . .
    __ in raindrops
24. (a) nitrogen released into the air from decaying animals and plants
25. (d) nitrates
26. carbon
27. carbon dioxide
28. sugars, starches
29. carbon
30. photosynthesis
31. (a) True
32. photosynthesis, respiration
33. (wording may vary) decomposition, combustion
34. (a) photosynthesis
    (b) respiration
    (c) respiration
    (d) respiration
    (e) decomposition
    (f) combustion
35. (c) the amount of carbon dioxide used equals the amount of carbon dioxide produced
36. (c) releasing more carbon dioxide into the air than is being used
37. engines, exhaust systems, electric
38. Rufus Stokes
39. the nitrogen cycle

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40. *"What you do today will affect tomorrow."*



Lesson 4: *Meteorology*

Limiting Factors

1. (a) trimming hedges
2. (d) more water
3. water
4. 70 percent
5. Less than one, frozen, saltwater
6. rainfall
7. survive
8. temperature
9. limiting factor
10. (d) temperature, wind, chemicals, light, water and pollution
11. (c) sunlight and nutrients
12. (b) sunlight converts nutrients into food
13. (b) The glucose produces energy that can be used for survival.
14. water cycle
15. (c) The temperature of the atmosphere will determine whether water is in the form of a gas, a liquid or solid.
16. (b) liquid
17. (a) gas
18. (c) gas
19. (a) evaporation
20. (c) precipitation
21. (b) liquid
22. (b) liquid
23. (c) solid
24. (b) liquid
25. (c) precipitation
26. (d) transpiration
27. (c) gas
28. (a) condensation, (b) precipitation, (c) transpiration, (d) evaporation
29. store, control, evaporation, absorption
30. toolshed
31. *"Do not let present circumstances limit future hopes and dreams."*
32. (c) Zinnias, (d) Geraniums
33. (a) Impatiens
34. (b) Petunias
35. (c) Zinnias, (d) Geraniums
36. (c) Plantain Lily
37. (b) Larkspur
38. (a) Silver Mum
39. (a) Silver Mum



Lesson 5: *Geology*

Erosion

1. (c) erosion
2. (any order) Water, gravity, glaciers, wind
3. (c) mud slide
4. (b) Erosion
5. (a) Gravity
6. (c) deposits of loose material
7. (c) river
8. (c) curves and bends in a river
9. (a) where the river slows
10. (a) delta
11. glaciers
12. polar, mountain
13. water
14. melt
15. depressions
16. Wind erosion
17. plants
18. (d) when soil becomes very dry, plants dry up and die; then, the wind can erode the soil
19. (b) False
20. _c_ silt
21. _a_ drought
22. _b_ dune
23. _d_ sandblasting

Lesson 5 continued on next page.

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24. (a) Continuous farming depleted nutrients and minerals in the soil.
    (c) The crops that the farmers grew did not replace nitrogen in the soil.
    (d) The soil became infertile and could not sustain any crops.
    (f) When the plants died, no roots remained to hold the soil in place.
    (g) Severe drought turned the exposed soil to dust that blew away.
    (i) When rain fell, the dusty topsoil washed away.
25. (a) True
26. (c) An area that has little or no vegetation cannot absorb water or rainfall. Instead of absorbing into the ground, the water runs downhill and erodes the soil.
27. (b) By planting vegetation, a person may reduce erosion, because the roots hold soil together and absorb water.
28. terrace, retaining wall
29. terrace
30. (a) When water flows onto a terrace, the stream is slowed down and is less likely to erode the soil.
31. (first 4, any order) concrete, stones, wood, railroad ties; erosion
32. Erosion, deposition
33. conservation
34. (a) terrace the yard
35. *"Do not let distractions erode your noble plans."*

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!

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