ACTIVITY ANSWER KEY

Chapter 4, Section 3

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

Lesson 11: *Biology*
Phyla and Sponges

1. (d) determination
2. (c) a sinkhole connected to a cave system
3. plant, animal
4. (c) perhaps half of the animals that ever existed
5. Biologists
6. Botanists
7. Zoologists
8. Biology, Biologists
9. Botany, Botanists
10. Zoology, Zoologists
11. (a) subject to change as new data is evaluated
12. species
13. mate, fertile offspring
14. phyla, vascular
15. _2_ phyla
    _1_ kingdom
    _3_ species
16. 33, phyla
17. porifera
18. vertebrates, invertebrates
19. _I_ sponges
    _V_ amphibians
    _V_ birds
    _I_ clams/oysters
    _V_ reptiles
    _I_ insects
    _I_ spiders
    _I_ jellyfish
    _V_ mammals
20. (wording may vary) mistakenly think they are sea plants
21. (c) filtering out tiny food particles from circulating water
22. (d) in oceans all over the world
23. (b) regrows new tissue
24. _X_ as camouflauge for hermit crabs
    ___ as food for other sea creatures
    _X_ for baths
    _X_ for mops and paint brushes
25. (c) camping gear and night-vision scope
26. *"Listen to the voice of nature, for it holds treasures for you."*

Lesson 12: *Biology*
Mollusks and Anthropods

1. (a) near a water hole and salt lick
2. (a) True
3. mother of pearl
4. bivalves
5. pearls, sand
6. (a) If we respond the right way, something good can result.
7. a single foot
8. univalves
9. Slug, Octopus, Squid

	Features	Squid	Octopus	Comparison	Contrast
	outer shell	none	none	X	
10.	backbone	none	none	X	
11.	number of arms	10	8		X
12.	suckers on arms	one row	two rows		X
13.	directions of movement	backward	backwards	X	
14.	mouths	strong beak	strong beak	X	
15.	defense mechanisms	speed	ink		X

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Arthropods

16. General information
    (a) Are found everywhere (land, air, water)
    (b) Some are predators (meat eaters)
    (c) Some are plant eaters
    (d) Some filter particles from water
17. General Physical characteristics
    (a) All are invertebrates (no backbone).
    (b) All have jointed legs.
    (c) All have exoskeletons (hard outer coverings).
    (d) Classification depends on
        [1] number of body segments
        [2] number of appendages (legs/arms)
18. Specific Examples
    (a) crayfish (live in drainage ditches)
    (b) fleas (live on larger animals)
    (c) locusts (devour green plants)
    (d) centipedes (literally means "100 feet")
        [1] one pair of legs per body segment
        [2] move quickly
        [3] jaw-like claws contain poison
            [a] kills insects
            [b] painful to humans
        [4] nocturnal (operate mostly at night)
        [5] prefer dark, damp locations
        [6] 2,500 varieties
            [a] most are one to four inches long
            [b] giant centipedes can be 18 inches long
    (e) millipede (literally means "1000 feet")
        [1] two pairs of legs per body segment
        [2] are plant eaters
        [3] are harmless to humans
        [4] leg movement forms wave-like motion
        [5] slow moving
        [6] method of defense is to roll into a tight ball
        [7] most varieties no longer than 6 inches
        [8] giant millipede can be 10 inches long
19. (b) False
20. *"Science still contains unanswered questions and undisclosed errors that have not yet been weeded out."*



Lesson 13: *Biology*
Crustaceans and Arachnids

1. (a) ". . . confirmed that the markings . . . are runes."
2. confirmed, are
3. (any order) around, almost, may
4. (a) they live in a series of borrowed shells
5. (d) all of these
6. Gills
7. (a) True
8. ___ encourage your best efforts
   _X_ ridicule any behavior different . . .
   _X_ call names, start fights
   _X_ lie about you, gang-up on you
9. (c) a name given to any crab in the process of molting
10. _X_ mercury contamination
    _X_ absorption of various toxins
    _X_ Hepatitis A possibilities
    _X_ cost involved in trapping sea foods
11. (b) False
12. Arachnids
13. arachnids
14. _3_ stings and kills prey
    _1_ detects prey by vibrations
    _4_ injects digestive fluids into prey
    _2_ grasps prey with front pinchers
    _6_ discards exoskeleton
    _5_ sucks insides out of prey

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15. ___ sleep under mosquito netting
    _X_ shake out shoes and clothing . . .
    _X_ keep bedding and clothing off . . .
    _X_ do not place hands into or under . . .
16. (a) mites are similar to scorpions, but larger
17. (any order) an exoskeleton, a body of 2 or more segments, legs that grow in pairs
18. (wording may vary) the number of body segments, the number of legs
19. 10, 2
20. arachnids, 2
21. insects, 6
22. (b) False
23. (d) does not grow with the animal
24. (wording may vary) the exoskeleton does not grow with the animal
25. (c) molting
26. the same color of the environment
27. (d) she said she had solved the mystery of the missing village
28. *"True friends encourage our best efforts, but wrong companions pull us down."*



Lesson 14: Biology
Ticks and spiders

1. (wording may vary) ordered the set taken down and rebuilt
2. (d) spoke gruffly to the boys
3. (c) They inject butyric acid into their hosts to numb the area around the bite.
4. Lyme Disease, Rocky Mountain Spotted Fever
5. (b) trap insects for the spider to eat
6. draglines, web balloons
7. Web balloons, miles
8. (c) shapeless, loosely woven jumbles of threads (cobwebs)
9. (a) tough, unorganized patterns
10. (b) smooth, paper-like tunnel lining
11. trap door spider
12. (b) False
13. (c) clots blood
14. strong
15. It is actually stronger than a steel wire of the same size.
16. strong, fine, cross hairs in eyepieces of scientific instruments.
17. (wording may vary) They are beneficial to humans.
18. (wording may vary) Spiders feed on flies and many other insect pests.
19. (d) black widow or brown recluse
20. (a) the captain of Sequoia II
21. *"The best way to stop big troubles is to begin stopping the little troubles."*



Lesson 15: Biology
Spiders and Insects

1. (wording may vary) the director had changed every scene
2. _B_ poisonous to humans
   _R_ dark brown violin-shaped mark on . . .
   _W_ red hourglass-shaped mark on . . .
   _W_ shiny, jet black color
   _R_ lives in dark places
   _W_ lives in out-of-the-way places
   _R_ venom kills body tissue of victim . . .
   _W_ venom attacks nervous system of . . .
3. 8, 6
4. no, yes
5. single lens, compound
6. 2, 3
7. **H**ead, **A**bdomen, **T**horax
8. (any order) antennae, compound eyes, mouth
9. _b_ an insect's organs of touch
10. _d_ strong, sharp insect jaws
11. _e_ a tube-like insect mouth part used . . .
12. _a_ openings for breathing in an . . .
13. _c_ a worm-like baby insect

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14. _2_ larvae/nymph
    _1_ eggs
    _4_ adult
    _3_ winged nymph
15. (d) sheds its outer covering
16. cocoon, pupa
17. physically, socially
18. (a) True
19. purpose, balance, problems
20. (d) Ants, bees, locusts and spiders are the least-studied insects
21. locusts, termites
22. cellulose
23. cedar, redwood
24. Social, labor
25. (a) True
26. (any order) termites, ants, bees
27. hard work, perseverance
28. caste
29. _b_ largest bee, lays all eggs for the hive
30. _c_ large male bees, provides air . . .
31. _a_ smallest bees (females), gather . . .

	Characteristics	Termites	Ants	Bees
32.	industrious/perseverant	X	X	X
33.	divisions of labor/purposeful	X	X	X
34.	caste system: queen, workers, males	X	X	X
35.	good communication/teamwork	X	X	X
36.	queen designed for reproduction	X	X	X
37.	soldiers/police patrols	X	X	X
38.	welfare program for lazy insects			

39. (c) *"Teamwork makes the dream work!"*
40. burned; buried
41. *"Human 'worms' can become 'butterflies' as their lives are redirected toward loftier goals."*

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!

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