Answer Key

Directed Reading A

SECTION: SORTING IT ALL OUT

1. Classification is the division of organisms into groups, or classes, based on specific characteristics.
2. B
3. B
4. B
5. C
6. A
7. D
8. A
9. plants and animals
10. Carolus Linnaeus
11. eight
12. They all have hair and mammary glands.
13. They give birth to live young.
14. A
15. D
16. B
17. phyla
18. species
19. kingdom, phylum, class, order, family, genus, species
20. scientific name
21. Before Linnaeus, scholars used names that had as many as 12 words to identify species. The system was difficult because scientists didn't always refer to organisms using the same names.
22. Carolus Linnaeus
23. genus
24. capital letter
25. lowercase letter
26. Latin, Greek
27. *rex*
28. *T. rex*
29. *Felis domesticus*
30. C
31. dichotomous key
32. C
33. D
34. A

SECTION: DOMAINS AND KINGDOMS

1. as either plants or animals
2. D
3. B
4. C
5. A
6. Protista
7. three
8. prokaryotes
9. genetics, cell wall
10. bacteria
11. bacteria
12. archaea
13. archaea
14. bacteria
15. Bacteria
16. eukaryotes
17. Eukarya
18. protists
19. protozoans
20. algae
21. photosynthesis
22. fungi
23. by breaking them down with digestive juices
24. molds and mushrooms
25. Members of kingdom Plantae are green, multicellular, have cell walls, and make their own food using the sun's energy.
26. sunlight
27. on land and in water that light can penetrate
28. The sugar, or glucose, that plants make for themselves is also important to other organisms because some, such as animals, eat the plants and others, such as fungi, absorb and digest dead plant material that contains the glucose.
29. Plants make food for other organisms and provide habitat for birds, insects, and other animals.
30. They are multicellular and can move.
31. environment
32. animals
33. Animals need plants for food, and some use them for habitat.

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34. Animals depend on bacteria and fungi to recycle nutrients found in dead organisms.
35. sponges

Directed Reading B

SECTION: SORTING IT ALL OUT

1. B
2. B
3. D
4. C
5. A
6. C
7. D
8. B
9. A
10. B
11. kingdoms
12. classes
13. genera
14. species
15. C
16. B
17. D
18. B
19. B
20. C
21. D
22. A

SECTION: DOMAINS AND KINGDOMS

1. A
2. D
3. C
4. D
5. B
6. B
7. B
8. A
9. C
10. D
11. C
12. eukaryotes
13. protists
14. algae
15. protozoans
16. Eukarya
17. C
18. A
19. C
20. A
21. B
22. A
23. C
24. D
25. C
26. B
27. A
28. C

Vocabulary and Section Summary

SECTION: SORTING IT ALL OUT

1. classification: the division of organisms into groups, or classes, based on specific characteristics
2. taxonomy: the science of describing, naming, and classifying organisms
3. dichotomous key: an aid that is used to identify organisms and that consists of the answers to a series of questions

SECTION: DOMAINS AND KINGDOMSS

1. Archaea: in a modern taxonomic system, a domain made up of prokaryotes (most of which are known to live in extreme environments) that are distinguished from other prokaryotes by differences in their genetics and in the make up of their cell wall; this domain aligns with the traditional kingdom Archaebacteria
2. Bacteria: in a modern taxonomic system, a domain made up of prokaryotes that usually have a cell well and that usually reproduce by cell division; this domain aligns with the traditional kingdom Eubacteria
3. Eukarya: in a modern taxonomic system, a domain made up of all eukaryotes; this domain aligns with the traditional kingdoms Protista, Fungi, Plantae, and Animalia
4. Protista: a kingdom of mostly one-celled eukaryotic organisms that are different from plants, animals, bacteria, and fungi
5. Fungi: a kingdom made up of nongreen, eukaryotic organisms that have no means of movement, reproduce by using spores, and get food by breaking down substances in their surroundings and absorbing the nutrients
6. Plantae: a kingdom made up of complex, multicellular organisms that are usually green, have cell walls made of cellulose, cannot move around, and use the sun's energy to make sugar by photosynthesis
7. Animalia: a kingdom made up of complex, multicellular organisms that lack cell walls, can usually move around, and quickly respond to their environment

Section Review

SECTION: SORTING IT ALL OUT

1. Sample answer: Classification is grouping things according to similar characteristics. Taxonomy is the science of classifying and naming organisms.
2. A

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