Chapter 01
A View of Life

Multiple Choice Questions

1. A university biology department wishes to hire a scientist to work on the relationships among the wolves, moose, trees and physical features on an island. If you were charged with writing the job description, you should title the position
A. population geneticist.
B. molecular biologist.
C. community ecologist.
D. organismal physiologist.
E. island zoologist.

Bloom's Level: 1. Remember
Learning Outcome: 01.01.01 Distinguish between the levels of biological organization.
Section: 01.01
Topic: Ecology

2. Which of the following terms best describes a conceptual scheme in science that is strongly supported, has not yet been found incorrect, and is based on the results of many observations?
A. a scientific model
B. an experiment
C. descriptive research
D. a scientific theory or principle
E. experimental results

Bloom's Level: 2. Understand
Learning Outcome: 01.04.02 Distinguish between a theory and a hypothesis.
Section: 01.04
Topic: General

3. Choose the correct order of classification from most inclusive to exclusive.
A. Domain-Kingdom-Phylum-Class-Order-Family-Genus-Species
B. Kingdom-Domain-Class-Phylum-Order-Family-Genus-Species
C. Kingdom-Domain-Class-Phylum-Order-Genus-Species-Family
D. Kingdom-Class-Phylum-Domain-Genus-Order-Family-Species

Bloom's Level: 1. Remember
Learning Outcome: 01.01.01 Distinguish between the levels of biological organization.
Section: 01.02
Topic: General

4. Which listing correctly indicates a sequence of increasing biological organization?
A. molecule, cell, organelle, atom
B. organelle, tissue, cell, molecule
C. organ, tissue, atom, molecule
D. atom, molecule, organelle, cell

Bloom's Level: 2. Understand
Learning Outcome: 01.01.02 Identify the basic characteristics of life.
Section: 01.01
Topic: General

True / False Questions

5. The classification system most commonly used by biologists today contains five domains.

FALSE

Bloom's Level: 1. Remember
Learning Outcome: 01.02.01 Distinguish between the three domains of life.
Section: 01.02
Topic: General

Multiple Choice Questions

6. Unicellular prokaryotes
A. lack a membrane bounded nucleus
B. are classified in the domains Bacteria and Archaea
C. are found in almost all habitats
D. All of the choices are correct.

Bloom's Level: 2. Understand
Learning Outcome: 01.02.01 Distinguish between the three domains of life.
Section: 01.02
Topic: General

Matching Questions

7. Match the items below with their descriptions:

1. Fungi	multicellular, photosynthetic organisms	**2**
2. Plantae	multicellular organisms that ingest their food	**3**
3. Animalia	obtain their food by absorption through filaments called hyphae	**1**

Bloom's Level: 1. Remember
Learning Outcome: 01.02.01 Distinguish between the three domains of life.
Section: 01.02
Topic: General

True / False Questions

8. Humans have an exaggerated impact on the ecosystem through their use of extra sources of energy and raw materials, and the production of extra wastes that must be handled.
TRUE

Bloom's Level: 2. Understand
Learning Outcome: 01.03.02 Recognize the importance of maintaining biodiversity.
Section: 01.03
Topic: General

Living organisms on Earth share many common characteristics. Which statements are TRUE and which are FALSE about nearly all living things?

9. Living things are made up of cells
TRUE

Bloom's Level: 1. Remember
Learning Outcome: 01.01.02 Identify the basic characteristics of life.
Section: 01.01
Topic: General

10. Living things must obey the laws of chemistry and physics
TRUE

Bloom's Level: 1. Remember
Learning Outcome: 01.01.02 Identify the basic characteristics of life.
Section: 01.01
Topic: General

11. Living things show biological organization and other common characteristics of life
TRUE

Bloom's Level: 1. Remember
Learning Outcome: 01.01.01 Distinguish between the levels of biological organization.
Section: 01.01
Topic: General

12. Emergent properties can be used to distinguish living things from nonliving things
TRUE

Bloom's Level: 1. Remember
Learning Outcome: 01.01.02 Identify the basic characteristics of life.
Section: 01.01
Topic: General

13. Living things are composed only of organic elements, whereas nonliving things are made up of inorganic elements
FALSE

Bloom's Level: 1. Remember
Learning Outcome: 01.01.02 Identify the basic characteristics of life.
Section: 01.01
Topic: General

Multiple Choice Questions

14. A hypothesis is tested by:
A. a prediction
B. experimentation
C. analysis of results
D. formulation of a theory

Bloom's Level: 1. Remember
Learning Outcome: 01.04.02 Distinguish between a theory and a hypothesis.
Section: 01.04
Topic: General

True / False Questions

15. The control group in an experiment receives all the same treatments as the experimental group(s), except for the one variable being tested.
TRUE

Bloom's Level: 2. Understand
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

16. Extinction can occur if a species is unable to adapt to a changing environment.

TRUE

Bloom's Level: 2. Understand
Learning Outcome: 01.02.02 Explain the relationship between the process of natural selection and evolutionary change.
Section: 01.02
Topic: Evolution

Multiple Choice Questions

17. Living organisms are characterized by:
A. adapting to the environment.
B. evolving over time.
C. displaying homeostatic controls.
D. all of the choices pertain to living organisms.

Bloom's Level: 1. Remember
Learning Outcome: 01.01.02 Identify the basic characteristics of life.
Section: 01.01
Topic: General

True / False Questions

Living and nonliving entities share some characteristics. Which statements are TRUE and which are FALSE about both living and nonliving entities?

18. Both living and nonliving entities are organized at the cellular level
FALSE

Bloom's Level: 1. Remember
Learning Outcome: 01.01.01 Distinguish between the levels of biological organization.
Section: 01.01
Topic: General

19. Both living and nonliving entities exhibit homeostatic controls
FALSE

Bloom's Level: 1. Remember
Learning Outcome: 01.01.02 Identify the basic characteristics of life.
Section: 01.01
Topic: General

20. Both living and nonliving entities are composed of chemical elements
TRUE

Bloom's Level: 1. Remember
Learning Outcome: 01.01.01 Distinguish between the levels of biological organization.
Section: 01.01
Topic: General

21. Both living and nonliving entities adapt to the environment
FALSE

Bloom's Level: 1. Remember
Learning Outcome: 01.01.01 Distinguish between the levels of biological organization.
Section: 01.01
Topic: General

Multiple Choice Questions

22. Which of the following domains contains the most primitive prokaryotes that live in extreme environments?
A. Archaea
B. Bacteria
C. Plantae
D. Fungi
E. Eukarya

Bloom's Level: 2. Understand
Learning Outcome: 01.02.01 Distinguish between the three domains of life.
Section: 01.02
Topic: General

23. Which of the following concepts is NOT one of the unifying theories of biology?
A. All organisms are composed of cells.
B. Life may arise through spontaneous generation.
C. Life comes only from life.
D. Organisms contain coded information that dictates their form, function, and, at times, behavior.
E. All living things have a common ancestor and are adapted to a particular way of life.

Incorrect Answers:
A. It is true that all organisms are composed of cells.

Bloom's Level: 1. Remember
Learning Outcome: 01.04.02 Distinguish between a theory and a hypothesis.
Section: 01.04
Topic: General

24. Which of the following does NOT represent homeostasis?
A. Sensors detect CO_2 levels in the blood and trigger an increase or decrease in the rate of breathing.
B. When body temperature drops, you shiver to generate heat; when your body heats up, you sweat and the evaporation cools you.
C. Feelings of hunger and then fullness affect the length of time and quantity of food you eat, keeping your weight near a "set point."
D. Energy is captured by plants, then transferred to consumers and decomposers, and eventually lost as heat.
E. Cells adjusting the openings on the bottom of leaves respond to differences in water stress in order to maintain moisture inside the leaf.

Incorrect Answers:
A. Homeostasis is the ability of living things to maintain a state of biological balance. Sensors detecting CO_2 levels in the blood and triggering an increase or decrease in the rate of breathing is an example of homeostasis.

Bloom's Level: 3. Apply
Learning Outcome: 01.01.02 Identify the basic characteristics of life.
Section: 01.01
Topic: General

25. From Kansas to central Indiana to Pennsylvania, many people believe that they have water moccasins (also called "cottonmouths") in their ponds. Some assert they have seen them, although they are certainly not so foolish as to try to capture one alive. Meanwhile, the fish and game offices and the range maps in the herpetology books indicate that this poisonous snake does not breed this far north. What is the most scientific attitude to assume on this issue?
A. Observations by both the public and the fish and game officers are subjective so this is not easily resolved objectively.
B. A simple field trip to the pond locations-that resulted in the capture and confirmation of the identity of the snakes-would settle the matter.
C. Scientific books with range maps are based on field research and, therefore, determine the truth in this case.
D. Because living organisms are active, scientific theories in biology always change.

Bloom's Level: 4. Analyze
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

26. Studying a brick does not predict the design of a skyscraper. Intense examination of muscle tissues does not allow you to predict the design of a kangaroo or clam. The structure of chlorophyll does not dictate the unique structure of a tree. These cases demonstrate:
A. the essential properties of life.
B. the levels of organization from atom to biosphere.
C. determinism, or how all phenomena are predictable effects of causes.
D. emergent properties that are easily predicted by examining their parts.
E. emergent properties that cannot be predicted by examining their parts.

Bloom's Level: 4. Analyze
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

27. One classic definition of life is "a self-replicating molecular assemblage." However, clay particles (in clay soil) contain layered aluminum and iron compounds that determine the pattern of the adjacent layers of sediment. This is technically a self-replicating molecular assemblage.
A. Therefore, it is living.
B. It is not living because it cannot think.
C. It is not living because there were no molecular changes (or chemistry) involved.
D. It is not living because there is no carbon involved; otherwise, such duplication would be living.
E. It is not living because it is a simple repetitive process without the ability to evolve or respond to the environment.

Bloom's Level: 4. Analyze
Learning Outcome: 01.01.02 Identify the basic characteristics of life.
Section: 01.01
Topic: General

28. Which of the following terms best describes the collection of scientific data through observation in the field, such as observing the behavior of birds?
A. a scientific model
B. an experiment
C. descriptive research
D. a scientific theory or principle
E. experimental results

Bloom's Level: 3. Apply
Learning Outcome: 01.04.01 Identify the components of the scientific method.
Section: 01.04
Topic: General

29. Which of the following organisms is NOT ultimately dependent on the sun as a source of energy?
A. A night-blooming flower is pollinated by night-flying bats.
B. An underground earthworm avoids the sun.
C. A cave fish feeds on debris that washes down to it.
D. All of the choices ARE ultimately dependent on the sun.
E. All of the choices are NOT ultimately dependent on the sun.

Bloom's Level: 3. Apply
Learning Outcome: 01.01.02 Identify the basic characteristics of life.
Section: 01.01
Topic: General

30. A study is conducted to determine the average length and weight of loblolly pine tree needles in the southeast United States. Is this data obtained through observation or experimentation?
A. Observation
B. Experimentation
C. Neither observation nor experimentation
D. Both observation and experimentation

Bloom's Level: 3. Apply
Learning Outcome: 01.04.01 Identify the components of the scientific method.
Section: 01.04
Topic: General

31. An environmental biologist was studying the biodiversity of a wildlife refuge. In the area, he found pine trees scattered among a variety of mixed hardwood trees. In order to identify the pine trees, he counted the number of needles per bundle and measured the average length of the needles. This is a _____ study.
A. Experimental
B. Descriptive
C. Both experimental and descriptive
D. Neither experimental of descriptive

Incorrect Answers:
A. This is a descriptive study that gathers numerical information to form a conclusion. There are no control and test groups in this study.

Bloom's Level: 3. Apply
Learning Outcome: 01.04.01 Identify the components of the scientific method.
Section: 01.04
Topic: General

32. An earlier classification grouped organisms by whether they inhabited the air, land or sea. However, the five-kingdoms-of-life and three-domains system divided into class-order-family-genus-species as described in this chapter is superior because it
A. better represents the origin of features held in common-the unity of life in DNA, etc.
B. better reflects the origin of adaptations-the diversity of life for differing environments.
C. allows the organization of over 900,000 different species.
D. groups organisms based on similarities related to their structure and evolution.
E. All of the choices are correct.

Bloom's Level: 5. Evaluate
Learning Outcome: 01.02.01 Distinguish between the three domains of life.
Section: 01.02
Topic: General

33. A cell is to a tissue as an atom is to a:
A. molecule
B. subatomic particle
C. electron
D. population

Bloom's Level: 3. Apply
Learning Outcome: 01.01.01 Distinguish between the levels of biological organization.
Section: 01.01
Topic: General

34. You are interested in the effect of increased carbon dioxide versus normal air, and also in the effect of green light versus full sunlight on the growth of corn plants in a greenhouse. Although you can set up your experiment inside a greenhouse, it is possible that there will be plant growth effects due to effects that you do not know and may never know. Which of the following are important to ensure control of unknown variables?
A. An increase in carbon dioxide does not result in a substantial decrease of other necessary gases.
B. All seedlings are from one uniform strain.
C. The intensity or brightness of the green light equals the intensity of the full sunlight.
D. All temperatures and available water remain the same.
E. All of the choices are important.

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

35. Tropical rainforests have many species that are found in great abundance. A study in the Brazilian rainforest found 487 tree species growing on a single hectare (2.5 acres). In the US and Canada together, there are only 700 species of trees on millions of acres. In one park in a Peruvian rainforest, scientists have identified over 1300 species of butterflies, while in all of Europe there are approximately 320 butterfly species. These findings suggest that:
A. rainforests are biologically less diverse than other ecosystems on earth.
B. the number of tree species and butterfly species are about the same throughout the ecosystems of the world.
C. rainforests are biologically more diverse than other ecosystems.
D. as many as 400 species a day are lost due to human activity.
E. rainforests do not have any type of value to humans.

Incorrect Answers:
A. These data suggest that rainforests are more biologically diverse than other ecosystems.

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: Ecology

36. Biodiversity in a particular ecosystem
A. is the total number of species in that ecosystem
B. includes the variability of the individual genes
C. impacts the function of the ecosystem in which the species live
D. All of the choices are correct.

Bloom's Level: 1. Remember
Learning Outcome: 01.03.02 Recognize the importance of maintaining biodiversity.
Section: 01.03
Topic: Ecology

37. Some members of Daphnia, a water flea, have a genetic mutation that causes them to prefer warmer environments. These members reproduce and pass these genetic changes to their offspring. The next generation will occupy warmer environments not previously occupied by this species. This is an example of:
A. adaptation
B. homeostasis
C. irritability
D. All of the choices are correct.

Bloom's Level: 3. Apply
Learning Outcome: 01.02.02 Explain the relationship between the process of natural selection and evolutionary change.
Section: 01.02
Topic: General

38. Some biologists study the complex interactions of animals and plants in forests or prairies. Such ecology field research often produces slightly different results for different researchers. In contrast, ecology experiments that are run indoors with one organism in a terrarium usually produce results that are repeatable. What is the most likely explanation?
A. The scientific method is only useful in laboratory settings.
B. It is not possible to establish a control group outside of a laboratory.
C. It is easier to hold all but one variable constant in a laboratory.
D. Field research is only descriptive, and descriptive research is not strictly "science."
E. Fieldwork is inductive; lab work is deductive.

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

Short Answer Questions

Dr. James isolated *Staphylococcus aureus,* a type of bacteria, from the leg wound of a ten year old boy. He suspected these bacteria would grow better at body temperature than room temperature (72°F), but thought that he should collect data to support his thinking. Dr. James introduced the same number of Staphylococcus bacteria into each of six test tubes containing the same type and amount of nutrient broth. Three test tubes were incubated at 98.6°F (Group 1), while three test tubes (Group 2) sat at 72°F. After 24 hours, Dr. James compared the turbidity (indicative of growth) of all six tubes and rated each on a scale of 0 - 4. 0 indicates no turbidity (no growth), while 4 indicates high turbidity (high growth). The following data was collected:

Test Tube	Temperature ^{0}F	Turbidity
Group 1: 1	**98.6**	**+ 4**
2	**98.6**	**+ 4**
3	**98.6**	**+ 3**
Group 2: 4	**72**	**0**
5	**72**	**+ 1**
6	**72**	**0**

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

39. After reading the scenario, write the hypothesis that was being tested in Dr. James' experiment.

Bloom's Level: 6. Create
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

40. Would you consider this to be a controlled experiment?

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

41. Evaluate the data presented here to reach a conclusion. Would you reject or accept the null hypothesis.

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

Multiple Choice Questions

42. The dependent (responding) variable in this experiment is:
A. the temperature
B. growth of bacteria, as indicated by the turbidity in the test tubes
C. the time that the test tubes were allowed to sit
D. amount of initial inoculum, or number of bacteria introduced into each test tube

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

43. The independent (experimental) variable is:
A. temperature
B. growth of bacteria
C. incubation period
D. amount of initial inoculum

Bloom's Level: 3. Apply
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

44. To ensure a controlled experiment all of the following conditions (variables) should be identical in Group 1 and Group 2:
A. type of bacteria, temperature, and incubation period
B. temperature and amount of initial inoculum (bacteria used)
C. type of bacteria, incubation period, amount of bacteria used
D. degree of turbidity, incubation period, and amount of bacteria

Bloom's Level: 4. Analyze
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

45. Choose which of the the following statements is a hypothesis for an experiment.
A. Based on the data collected during an experiment, *S. aureus* grows better at body temperature than room temperature.
B. Based on previous experience, it is predicted that *S. aureus* will grow better at body temperature than at room temperature.
C. *S. aureus* grew equally well at room temperature and at body temperature.
D. Based on the data collected during the experiment, it is confirmed that *S. aureus* grew better at room temperature.

Incorrect Answers:
A. Hypotheses are educated guesses that predict how to solve a problem or answer a question. They are not based on data collected during an experiment. This is a conclusion.

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

46. Dr. James performed another experiment. Instead of inoculating the test tubes with Staphylococcus, he used the bacterium, Streptococcus. He found that Streptococcus grew better at body temperature than at room temperature. This is a replicate of the first experiment.

A. True
B. False

Bloom's Level: 3. Apply
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

Short Answer Questions

47. Dr. James considers the bacteria grown at body temperature to be the control group and room temperature the experimental group. Do you agree with this reasoning?

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

Multiple Choice Questions

48. A researcher reports he has conducted many experiments where a galvanometer (lie detector) was hooked up to detect a plant's responses. He reports that when a spider was released near the plant, the spider's decision to escape was picked up by the plant, "causing a reaction in the leaf." When other researchers repeated the experiment, they could not get any galvanometer responses. The researcher then concluded that plants could be put into a faint by humans.

A. This is a justified conclusion from a research design that appears to follow the scientific method.
B. The only problem with this general research plan is that it lacks a control.
C. Results must be somewhat repeatable and these results that only work for this researcher do not qualify as science.
D. The design is scientific; it just lacks a hypothesis.
E. If the researcher has actual numerical counts, this must be accepted as valid science.

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

49. An elementary student decides to conduct an experiment comparing the effectiveness of two commercial soaps as cleaning agents, using each in paired tests of different types of stains and colors of cloth, where the only variable was the soap used. The student will use the judgment of classmates to decide if the stains remain equal or if soap one cleans better than the other in each test run. However, the student makes no prediction of which soap is expected to perform best.

A. This lacks a hypothesis and is therefore not a scientific test.
B. This lacks any control group (no-soap treatment) and therefore will provide no meaningful results.
C. Because this is based on the subjective judgments of students, it is not objective and therefore not scientific.
D. This is a scientific procedure, although it does lack a stated hypothesis describing an anticipated outcome.
E. This experimental design has all the components and procedures of the scientific method.

Incorrect Answers:
A. This is a scientific procedure, although it does lack a stated hypothesis describing an anticipated outcome.

Bloom's Level: 4. Analyze
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

50. For five years, you wake up before the alarm is set to ring each morning. This leads you to conclude that people have a built-in "alarm clock" capable of waking them up. From a science viewpoint, this conclusion

A. is science because it is based on real observations.
B. is science because it is predictive of what will happen tomorrow morning.
C. is scientifically valid because 5 years x 365 days is a large number of trials.
D. may not be valid because it generalizes about all people, and there may have been other variables that could awaken you without a built-in clock.
E. cannot be scientifically treated because it involves human behavior.

Bloom's Level: 5. Evaluate
Learning Outcome: 01.04.03 Analyze a scientific experiment and identify the hypothesis, experiment, control groups, and conclusions.
Section: 01.04
Topic: General

51. The manner in which a scientist intends to conduct an experiment is called:
A. inductive reasoning
B. the experimental design
C. data collection and analysis
D. the conclusion

Bloom's Level: 1. Remember
Learning Outcome: 01.04.01 Identify the components of the scientific method.
Section: 01.04
Topic: General

Short Answer Questions

52. There is debate as to whether religious creationism should receive ‘equal time' in the science classroom. Many firmly disagree with creationism being taught in public schools, maintaining that science does not address religious and supernatural concepts. How would you support this statement?

Bloom's Level: 3. Apply
Learning Outcome: 01.04.01 Identify the components of the scientific method.
Section: 01.04
Topic: General

Multiple Choice Questions

53. Arrange in order, the levels of ecological study from most inclusive to most exclusive:
A. biosphere, ecosystem, community, population, individual organism
B. ecosystem, biosphere, population, community, individual organism
C. individual organism, community, population, ecosystem, biosphere
D. individual organism, population, community, ecosystem, biosphere

Bloom's Level: 2. Understand
Learning Outcome: 01.01.01 Distinguish between the levels of biological organization.
Section: 01.01
Topic: Ecology

54. Which definition best describes a population?
A. the members of a species in a given area
B. the interaction between the organisms and their environment
C. the region of Earth that contains living organisms
D. the interaction between various groups of organisms in a given environment
E. all of the females of a given species in a particular area

Bloom's Level: 1. Remember
Learning Outcome: 01.03.01 Distinguish among populations, communities, ecosystems, and the biosphere.
Section: 01.03
Topic: Ecology

55. Which of the following features are present at the ecosystem level?
A. chemical cycling through the food chain
B. energy flow that begins at the producer level
C. input of solar energy
D. complex interactions between a variety of populations
E. all are features of an ecosystem

Bloom's Level: 5. Evaluate
Learning Outcome: 01.03.01 Distinguish among populations, communities, ecosystems, and the biosphere.
Section: 01.03
Topic: Ecology

56. Organisms belonging to the same _____ would be the most closely related.
A. kingdom
B. phylum
C. family
D. class
E. order

Bloom's Level: 1. Remember
Learning Outcome: 01.01.01 Distinguish between the levels of biological organization.
Section: 01.01
Topic: General