Chapter 01 Test Bank

*Student: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | Which group includes the simplest of organisms that do not have a nucleus?

|  |  |
| --- | --- |
| A.  | Plantae  |

|  |  |
| --- | --- |
| B.  | Eukaryotes  |

|  |  |
| --- | --- |
| C.  | Protista  |

|  |  |
| --- | --- |
| D.  | Fungi  |

|  |  |
| --- | --- |
| E.  | Archaea and Bacteria  |

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|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. | Supernatural and \_\_\_\_\_\_\_\_\_\_\_\_ hypotheses cannot be measured and tested and so are beyond the realm of scientific analyses.

|  |  |
| --- | --- |
| A.  | behavioral  |

|  |  |
| --- | --- |
| B.  | religious  |

|  |  |
| --- | --- |
| C.  | genetic  |

|  |  |
| --- | --- |
| D.  | fossils  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3. | Supernatural and \_\_\_\_\_\_\_\_\_\_\_\_ hypotheses cannot be measured and tested and so are beyond the realm of scientific analyses.

|  |  |
| --- | --- |
| A.  | behavioral  |

|  |  |
| --- | --- |
| B.  | religious  |

|  |  |
| --- | --- |
| C.  | genetic  |

|  |  |
| --- | --- |
| D.  | fossils  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4. | The process of using and transforming energy is

|  |  |
| --- | --- |
| A.  | response to stimulation.  |

|  |  |
| --- | --- |
| B.  | complexity.  |

|  |  |
| --- | --- |
| C.  | metabolism.  |

|  |  |
| --- | --- |
| D.  | homeostasis.  |

 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5. | Choose the characteristic that is NOT a defining property of living things.

|  |  |
| --- | --- |
| A.  | Movement  |

|  |  |
| --- | --- |
| B.  | Metabolism  |

|  |  |
| --- | --- |
| C.  | Cellular organization  |

|  |  |
| --- | --- |
| D.  | Homeostasis  |

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|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6. | All living things are able to maintain stable internal conditions, whether they are unicellular, or complex, multicellular organisms. This property is called

|  |  |
| --- | --- |
| A.  | metabolism.  |

|  |  |
| --- | --- |
| B.  | homeostasis.  |

|  |  |
| --- | --- |
| C.  | heredity.  |

|  |  |
| --- | --- |
| D.  | cellular organization.  |

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|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7. | In a multicellular organism, different tissues that function together are grouped into

|  |  |
| --- | --- |
| A.  | organisms.  |

|  |  |
| --- | --- |
| B.  | cells.  |

|  |  |
| --- | --- |
| C.  | organs.  |

|  |  |
| --- | --- |
| D.  | tissue systems.  |

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|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8. | All the populations of a particular kind of organism are members of the same

|  |  |
| --- | --- |
| A.  | community.  |

|  |  |
| --- | --- |
| B.  | species.  |

|  |  |
| --- | --- |
| C.  | habitat.  |

|  |  |
| --- | --- |
| D.  | ecosystem.  |

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|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9. | The different populations of all the species in a given area make up a(n)

|  |  |
| --- | --- |
| A.  | community.  |

|  |  |
| --- | --- |
| B.  | association.  |

|  |  |
| --- | --- |
| C.  | ecosystem.  |

|  |  |
| --- | --- |
| D.  | population.  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10. | Charles Darwin used \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to visualize the mechanisms of natural selection.

|  |  |
| --- | --- |
| A.  | artificial selection  |

|  |  |
| --- | --- |
| B.  | biology  |

|  |  |
| --- | --- |
| C.  | natural history  |

|  |  |
| --- | --- |
| D.  | evolution  |

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|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11. | Which of the following is NOT an underlying theme of biology?

|  |  |
| --- | --- |
| A.  | Cooperation  |

|  |  |
| --- | --- |
| B.  | Flow of energy  |

|  |  |
| --- | --- |
| C.  | Evolution  |

|  |  |
| --- | --- |
| D.  | Creation  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12. | The \_\_\_\_\_\_\_\_\_\_ of flowering plants and insects is responsible for much of the diversity of these groups.

|  |  |
| --- | --- |
| A.  | natural selection  |

|  |  |
| --- | --- |
| B.  | coevolution  |

|  |  |
| --- | --- |
| C.  | artificial selection  |

|  |  |
| --- | --- |
| D.  | natural history  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13. | Scientists employ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at the very beginning of the scientific process.

|  |  |
| --- | --- |
| A.  | observation  |

|  |  |
| --- | --- |
| B.  | deduction  |

|  |  |
| --- | --- |
| C.  | prediction  |

|  |  |
| --- | --- |
| D.  | experimentation  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. | After scientists observed that an ozone hole was developing over Antarctica, they measured levels of chemicals in the upper atmosphere. They found a surprising concentration of ozone-destroying

|  |  |
| --- | --- |
| A.  | chlorofluorocarbons.  |

|  |  |
| --- | --- |
| B.  | helium.  |

|  |  |
| --- | --- |
| C.  | super nitric oxide.  |

|  |  |
| --- | --- |
| D.  | mercury.  |

 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15. | The proper order for the scientific process is

|  |  |
| --- | --- |
| A.  | predictions-experiment-observation-hypothesis.  |

|  |  |
| --- | --- |
| B.  | experiment-observation-predictions-hypothesis.  |

|  |  |
| --- | --- |
| C.  | hypothesis-observation-experiment-predictions.  |

|  |  |
| --- | --- |
| D.  | observation-hypothesis-predictions-experiment.  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16. | The most inclusive group in taxonomy is a

|  |  |
| --- | --- |
| A.  | population.  |

|  |  |
| --- | --- |
| B.  | domain.  |

|  |  |
| --- | --- |
| C.  | kingdom.  |

|  |  |
| --- | --- |
| D.  | species.  |

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|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17. | In a control experiment, the variable of interest is not \_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |
| --- | --- |
| A.  | maintained  |

|  |  |
| --- | --- |
| B.  | observed  |

|  |  |
| --- | --- |
| C.  | altered  |

|  |  |
| --- | --- |
| D.  | predicted  |

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|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18. | We have all heard that dietary fats are linked to higher incidences of heart disease and cancer in humans. Choose the proper hypothesis that a scientist could test to examine this observation.

|  |  |
| --- | --- |
| A.  | Eating more meat causes cancer.  |

|  |  |
| --- | --- |
| B.  | Eating a diet of lard makes you fat.  |

|  |  |
| --- | --- |
| C.  | Dietary fat, heart disease, and cancer are all somehow interrelated.  |

|  |  |
| --- | --- |
| D.  | Fat levels above 30% of calories in the diet are correlated with an increase in heart disease.  |

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| 19. | A biologist wants to test the effectiveness of a new food additive on causing growth in mice. An effective control group would be one that

|  |  |
| --- | --- |
| A.  | ate a higher concentration of food additive.  |

|  |  |
| --- | --- |
| B.  | was kept in different conditions across the city.  |

|  |  |
| --- | --- |
| C.  | was fed the same ration without the food additive.  |

|  |  |
| --- | --- |
| D.  | ate a lower concentration of the food additive.  |

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| 20. | At the end of an experiment, a conclusion is formed based on

|  |  |
| --- | --- |
| A.  | the analysis of the experiment.  |

|  |  |
| --- | --- |
| B.  | the general observations during the experiment.  |

|  |  |
| --- | --- |
| C.  | the needs of the group funding the experiment.  |

|  |  |
| --- | --- |
| D.  | the feelings or beliefs of the scientist conducting the experiment.  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21. | Which kingdom contains photosynthetic multicellular organisms that live on the land?

|  |  |
| --- | --- |
| A.  | Fungi  |

|  |  |
| --- | --- |
| B.  | Plantae  |

|  |  |
| --- | --- |
| C.  | Animalia  |

|  |  |
| --- | --- |
| D.  | Protista  |

|  |  |
| --- | --- |
| E.  | Archaea  |

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|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22. | Which kingdom contains nonphotosynthetic multicellular organisms that digest their food externally?

|  |  |
| --- | --- |
| A.  | Fungi  |

|  |  |
| --- | --- |
| B.  | Plantae  |

|  |  |
| --- | --- |
| C.  | Animalia  |

|  |  |
| --- | --- |
| D.  | Protista  |

|  |  |
| --- | --- |
| E.  | Archaea  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23. | Which kingdom contains nonphotosynthetic multicellular organisms that digest their food internally?

|  |  |
| --- | --- |
| A.  | Fungi  |

|  |  |
| --- | --- |
| B.  | Plantae  |

|  |  |
| --- | --- |
| C.  | Animalia  |

|  |  |
| --- | --- |
| D.  | Protista  |

|  |  |
| --- | --- |
| E.  | Archaea  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24. | All organisms possess a genetic system that is based on

|  |  |
| --- | --- |
| A.  | RNA.  |

|  |  |
| --- | --- |
| B.  | protein.  |

|  |  |
| --- | --- |
| C.  | DNA.  |

|  |  |
| --- | --- |
| D.  | cells.  |

|  |  |
| --- | --- |
| E.  | sugars.  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25. | The proper order for the hierarchy of increasing complexity is

|  |  |
| --- | --- |
| A.  | organelles - cells - molecules - tissues - organs.  |

|  |  |
| --- | --- |
| B.  | cells - molecules - organs - tissues - organelles.  |

|  |  |
| --- | --- |
| C.  | molecules - organs - cells - tissues - organelles.  |

|  |  |
| --- | --- |
| D.  | molecules - organelles - cells - tissues - organs.  |

|  |  |
| --- | --- |
| E.  | organs - organelles - cells - molecules - tissues.  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26. | The test of a hypothesis is called a(n)

|  |  |
| --- | --- |
| A.  | control.  |

|  |  |
| --- | --- |
| B.  | experiment.  |

|  |  |
| --- | --- |
| C.  | variable.  |

|  |  |
| --- | --- |
| D.  | prediction.  |

|  |  |
| --- | --- |
| E.  | conclusion.  |

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|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27. | A scientist wants to study the effect of vitamin C on colds. He recruits 100 people with colds and gives the experimental group 1000 mg of vitamin C per day. What would be an appropriate control?

|  |  |
| --- | --- |
| A.  | Give the control group nothing.  |

|  |  |
| --- | --- |
| B.  | Give the control group 2000 mg of vitamin C per day.  |

|  |  |
| --- | --- |
| C.  | Give the control group orange juice every day.  |

|  |  |
| --- | --- |
| D.  | Give the control group a pill similar to vitamin C but containing sugar (a placebo).  |

|  |  |
| --- | --- |
| E.  | Give the control group 1000 mg of another brand of vitamin C per day.  |

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| 28. | Which of the following is *incorrect* about scientific experiments?

|  |  |
| --- | --- |
| A.  | Hypotheses can be rejected.  |

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| --- | --- |
| B.  | Alternative hypotheses can be proposed and tested after initial experimentation.  |

|  |  |
| --- | --- |
| C.  | A scientific theory is mainly an educated "guess."  |

|  |  |
| --- | --- |
| D.  | Supernatural phenomena are not scientifically testable.  |

|  |  |
| --- | --- |
| E.  | In a control experiment, the variable is not altered.  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29. | Who is credited for discovering cells?

|  |  |
| --- | --- |
| A.  | Charles Darwin  |

|  |  |
| --- | --- |
| B.  | Anton van Leeuwenhoek  |

|  |  |
| --- | --- |
| C.  | Robert Hooke  |

|  |  |
| --- | --- |
| D.  | Francis Crick  |

|  |  |
| --- | --- |
| E.  | Joseph Farman  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30. | DNA (deoxyribonucleic acid)

|  |  |
| --- | --- |
| A.  | contains the information specifying what an organism will be like.  |

|  |  |
| --- | --- |
| B.  | is a source of energy that can be harvested by an organism.  |

|  |  |
| --- | --- |
| C.  | is only present in higher organisms.  |

|  |  |
| --- | --- |
| D.  | is not passed from parent to offspring.  |

|  |  |
| --- | --- |
| E.  | is the main structural protein of cells.  |

 |

|  |  |
| --- | --- |
| 31. | Evolution is the genetic change in an organism over time.   True    False |

|  |  |
| --- | --- |
| 32. | Some living organisms possess RNA as their only genetic material.   True    False |

|  |  |
| --- | --- |
| 33. | The kingdom that includes mushrooms and yeast is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 34. | All living things use energy, a property known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 35. | As life forms become more advanced, new properties occur. These properties are referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 36. | The information that determines what an organism will be like is stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_ molecule.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 37. | Cells with a similar structure and function are organized into \_\_\_\_\_\_\_\_\_\_\_\_ in the body.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 38. | The ozone-destroying contaminants in the upper atmosphere were found to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 39. | The final step in the scientific process is the development of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 40. | The theory that relates to the diversity of life is the theory of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 41. | A layer of ozone in the atmosphere shields the earth from harmful \_\_\_\_\_\_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 42. | A collection of related hypotheses that have been shown to be true after extensive testing can be collectively called a \_\_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 43. | The process where organisms act to maintain a relatively stable internal environment is \_\_\_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 44. | All organisms on earth encode their genes in strands of \_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 45. | A discrete unit of genetic information is called a \_\_\_\_\_\_\_\_\_\_\_.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| 46. | Explain why a student of biology needs to study the hierarchy of levels of organization within and among living things.       |

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| --- | --- |
| 47. | Many people think the term "theory" means someone's idea about something. Explain the scientific use of the term "theory", especially as it relates to the biological concept of evolution.       |

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| --- | --- |
| 48. | Explain how a depletion in ozone might lead to a rise in the incidence of skin cancer.       |

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| --- | --- |
| 49. | Why is the study of biology central to the understanding and solving of the world's great environmental problems?       |

|  |  |
| --- | --- |
| 50. | Why is it impossible for supernatural, religious, and unexplained phenomena to be explained by biology?       |

Chapter 01 Test Bank Key

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | Which group includes the simplest of organisms that do not have a nucleus?

|  |  |
| --- | --- |
| A.  | Plantae  |

|  |  |
| --- | --- |
| B.  | Eukaryotes  |

|  |  |
| --- | --- |
| C.  | Protista  |

|  |  |
| --- | --- |
| D.  | Fungi  |

|  |  |
| --- | --- |
| **E.**  | Archaea and Bacteria  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.01.01 List the six kingdoms of life.Section: 01.01Topic: GeneralTopic: Taxonomy and Systematics* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2. | Supernatural and \_\_\_\_\_\_\_\_\_\_\_\_ hypotheses cannot be measured and tested and so are beyond the realm of scientific analyses.

|  |  |
| --- | --- |
| A.  | behavioral  |

|  |  |
| --- | --- |
| **B.**  | religious  |

|  |  |
| --- | --- |
| C.  | genetic  |

|  |  |
| --- | --- |
| D.  | fossils  |

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|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.06.01 Define hypothesis and theory, and distinguish between them.Section: 01.06Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3. | Supernatural and \_\_\_\_\_\_\_\_\_\_\_\_ hypotheses cannot be measured and tested and so are beyond the realm of scientific analyses.

|  |  |
| --- | --- |
| A.  | behavioral  |

|  |  |
| --- | --- |
| **B.**  | religious  |

|  |  |
| --- | --- |
| C.  | genetic  |

|  |  |
| --- | --- |
| D.  | fossils  |

 |

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| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.07.03 State the theory of heredity and explain how it is related to the chromosomal theory of inheritance.Section: 01.07Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4. | The process of using and transforming energy is

|  |  |
| --- | --- |
| A.  | response to stimulation.  |

|  |  |
| --- | --- |
| B.  | complexity.  |

|  |  |
| --- | --- |
| **C.**  | metabolism.  |

|  |  |
| --- | --- |
| D.  | homeostasis.  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.02.01 Name and describe the five basic properties shared by all living things.Section: 01.02Section: 01.04Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5. | Choose the characteristic that is NOT a defining property of living things.

|  |  |
| --- | --- |
| **A.**  | Movement  |

|  |  |
| --- | --- |
| B.  | Metabolism  |

|  |  |
| --- | --- |
| C.  | Cellular organization  |

|  |  |
| --- | --- |
| D.  | Homeostasis  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.02.01 Name and describe the five basic properties shared by all living things.Section: 01.02Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6. | All living things are able to maintain stable internal conditions, whether they are unicellular, or complex, multicellular organisms. This property is called

|  |  |
| --- | --- |
| A.  | metabolism.  |

|  |  |
| --- | --- |
| **B.**  | homeostasis.  |

|  |  |
| --- | --- |
| C.  | heredity.  |

|  |  |
| --- | --- |
| D.  | cellular organization.  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.02.01 Name and describe the five basic properties shared by all living things.Section: 01.02Section: 01.04Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7. | In a multicellular organism, different tissues that function together are grouped into

|  |  |
| --- | --- |
| A.  | organisms.  |

|  |  |
| --- | --- |
| B.  | cells.  |

|  |  |
| --- | --- |
| **C.**  | organs.  |

|  |  |
| --- | --- |
| D.  | tissue systems.  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.03.01 List the 13 hierarchical levels of the organization of life, and factor them into 3 general levels of complexity.Section: 01.03Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8. | All the populations of a particular kind of organism are members of the same

|  |  |
| --- | --- |
| A.  | community.  |

|  |  |
| --- | --- |
| **B.**  | species.  |

|  |  |
| --- | --- |
| C.  | habitat.  |

|  |  |
| --- | --- |
| D.  | ecosystem.  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.03.01 List the 13 hierarchical levels of the organization of life, and factor them into 3 general levels of complexity.Section: 01.03Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9. | The different populations of all the species in a given area make up a(n)

|  |  |
| --- | --- |
| **A.**  | community.  |

|  |  |
| --- | --- |
| B.  | association.  |

|  |  |
| --- | --- |
| C.  | ecosystem.  |

|  |  |
| --- | --- |
| D.  | population.  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.03.01 List the 13 hierarchical levels of the organization of life, and factor them into 3 general levels of complexity.Section: 01.03Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10. | Charles Darwin used \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to visualize the mechanisms of natural selection.

|  |  |
| --- | --- |
| **A.**  | artificial selection  |

|  |  |
| --- | --- |
| B.  | biology  |

|  |  |
| --- | --- |
| C.  | natural history  |

|  |  |
| --- | --- |
| D.  | evolution  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.04.01 List and explain the five general themes that define biology as a science.Section: 01.04Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11. | Which of the following is NOT an underlying theme of biology?

|  |  |
| --- | --- |
| A.  | Cooperation  |

|  |  |
| --- | --- |
| B.  | Flow of energy  |

|  |  |
| --- | --- |
| C.  | Evolution  |

|  |  |
| --- | --- |
| **D.**  | Creation  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.04.01 List and explain the five general themes that define biology as a science.Section: 01.04Section: 01.06Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12. | The \_\_\_\_\_\_\_\_\_\_ of flowering plants and insects is responsible for much of the diversity of these groups.

|  |  |
| --- | --- |
| A.  | natural selection  |

|  |  |
| --- | --- |
| **B.**  | coevolution  |

|  |  |
| --- | --- |
| C.  | artificial selection  |

|  |  |
| --- | --- |
| D.  | natural history  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.04.01 List and explain the five general themes that define biology as a science.Section: 01.04Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13. | Scientists employ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at the very beginning of the scientific process.

|  |  |
| --- | --- |
| **A.**  | observation  |

|  |  |
| --- | --- |
| B.  | deduction  |

|  |  |
| --- | --- |
| C.  | prediction  |

|  |  |
| --- | --- |
| D.  | experimentation  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14. | After scientists observed that an ozone hole was developing over Antarctica, they measured levels of chemicals in the upper atmosphere. They found a surprising concentration of ozone-destroying

|  |  |
| --- | --- |
| **A.**  | chlorofluorocarbons.  |

|  |  |
| --- | --- |
| B.  | helium.  |

|  |  |
| --- | --- |
| C.  | super nitric oxide.  |

|  |  |
| --- | --- |
| D.  | mercury.  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: Conservation BiologyTopic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15. | The proper order for the scientific process is

|  |  |
| --- | --- |
| A.  | predictions-experiment-observation-hypothesis.  |

|  |  |
| --- | --- |
| B.  | experiment-observation-predictions-hypothesis.  |

|  |  |
| --- | --- |
| C.  | hypothesis-observation-experiment-predictions.  |

|  |  |
| --- | --- |
| **D.**  | observation-hypothesis-predictions-experiment.  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16. | The most inclusive group in taxonomy is a

|  |  |
| --- | --- |
| A.  | population.  |

|  |  |
| --- | --- |
| **B.**  | domain.  |

|  |  |
| --- | --- |
| C.  | kingdom.  |

|  |  |
| --- | --- |
| D.  | species.  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.07.04 State the theory of evolution and how it is related to the gene theory.Section: 01.07Topic: Conservation BiologyTopic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17. | In a control experiment, the variable of interest is not \_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |
| --- | --- |
| A.  | maintained  |

|  |  |
| --- | --- |
| B.  | observed  |

|  |  |
| --- | --- |
| **C.**  | altered  |

|  |  |
| --- | --- |
| D.  | predicted  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18. | We have all heard that dietary fats are linked to higher incidences of heart disease and cancer in humans. Choose the proper hypothesis that a scientist could test to examine this observation.

|  |  |
| --- | --- |
| A.  | Eating more meat causes cancer.  |

|  |  |
| --- | --- |
| B.  | Eating a diet of lard makes you fat.  |

|  |  |
| --- | --- |
| C.  | Dietary fat, heart disease, and cancer are all somehow interrelated.  |

|  |  |
| --- | --- |
| **D.**  | Fat levels above 30% of calories in the diet are correlated with an increase in heart disease.  |

 |

|  |
| --- |
| *Bloom's Level: 3. ApplyLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19. | A biologist wants to test the effectiveness of a new food additive on causing growth in mice. An effective control group would be one that

|  |  |
| --- | --- |
| A.  | ate a higher concentration of food additive.  |

|  |  |
| --- | --- |
| B.  | was kept in different conditions across the city.  |

|  |  |
| --- | --- |
| **C.**  | was fed the same ration without the food additive.  |

|  |  |
| --- | --- |
| D.  | ate a lower concentration of the food additive.  |

 |

|  |
| --- |
| *Bloom's Level: 3. ApplyLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: General* |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20. | At the end of an experiment, a conclusion is formed based on

|  |  |
| --- | --- |
| **A.**  | the analysis of the experiment.  |

|  |  |
| --- | --- |
| B.  | the general observations during the experiment.  |

|  |  |
| --- | --- |
| C.  | the needs of the group funding the experiment.  |

|  |  |
| --- | --- |
| D.  | the feelings or beliefs of the scientist conducting the experiment.  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: General* |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21. | Which kingdom contains photosynthetic multicellular organisms that live on the land?

|  |  |
| --- | --- |
| A.  | Fungi  |

|  |  |
| --- | --- |
| **B.**  | Plantae  |

|  |  |
| --- | --- |
| C.  | Animalia  |

|  |  |
| --- | --- |
| D.  | Protista  |

|  |  |
| --- | --- |
| E.  | Archaea  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.01.01 List the six kingdoms of life.Section: 01.01Topic: GeneralTopic: Taxonomy and Systematics* |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22. | Which kingdom contains nonphotosynthetic multicellular organisms that digest their food externally?

|  |  |
| --- | --- |
| **A.**  | Fungi  |

|  |  |
| --- | --- |
| B.  | Plantae  |

|  |  |
| --- | --- |
| C.  | Animalia  |

|  |  |
| --- | --- |
| D.  | Protista  |

|  |  |
| --- | --- |
| E.  | Archaea  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.01.01 List the six kingdoms of life.Section: 01.01Topic: Conservation BiologyTopic: General* |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23. | Which kingdom contains nonphotosynthetic multicellular organisms that digest their food internally?

|  |  |
| --- | --- |
| A.  | Fungi  |

|  |  |
| --- | --- |
| B.  | Plantae  |

|  |  |
| --- | --- |
| **C.**  | Animalia  |

|  |  |
| --- | --- |
| D.  | Protista  |

|  |  |
| --- | --- |
| E.  | Archaea  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.01.01 List the six kingdoms of life.Section: 01.01Topic: Conservation BiologyTopic: General* |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24. | All organisms possess a genetic system that is based on

|  |  |
| --- | --- |
| A.  | RNA.  |

|  |  |
| --- | --- |
| B.  | protein.  |

|  |  |
| --- | --- |
| **C.**  | DNA.  |

|  |  |
| --- | --- |
| D.  | cells.  |

|  |  |
| --- | --- |
| E.  | sugars.  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.02.01 Name and describe the five basic properties shared by all living things.Section: 01.02Topic: General* |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25. | The proper order for the hierarchy of increasing complexity is

|  |  |
| --- | --- |
| A.  | organelles - cells - molecules - tissues - organs.  |

|  |  |
| --- | --- |
| B.  | cells - molecules - organs - tissues - organelles.  |

|  |  |
| --- | --- |
| C.  | molecules - organs - cells - tissues - organelles.  |

|  |  |
| --- | --- |
| **D.**  | molecules - organelles - cells - tissues - organs.  |

|  |  |
| --- | --- |
| E.  | organs - organelles - cells - molecules - tissues.  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.03.01 List the 13 hierarchical levels of the organization of life, and factor them into 3 general levels of complexity.Section: 01.03Topic: General* |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26. | The test of a hypothesis is called a(n)

|  |  |
| --- | --- |
| A.  | control.  |

|  |  |
| --- | --- |
| **B.**  | experiment.  |

|  |  |
| --- | --- |
| C.  | variable.  |

|  |  |
| --- | --- |
| D.  | prediction.  |

|  |  |
| --- | --- |
| E.  | conclusion.  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: General* |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27. | A scientist wants to study the effect of vitamin C on colds. He recruits 100 people with colds and gives the experimental group 1000 mg of vitamin C per day. What would be an appropriate control?

|  |  |
| --- | --- |
| A.  | Give the control group nothing.  |

|  |  |
| --- | --- |
| B.  | Give the control group 2000 mg of vitamin C per day.  |

|  |  |
| --- | --- |
| C.  | Give the control group orange juice every day.  |

|  |  |
| --- | --- |
| **D.**  | Give the control group a pill similar to vitamin C but containing sugar (a placebo).  |

|  |  |
| --- | --- |
| E.  | Give the control group 1000 mg of another brand of vitamin C per day.  |

 |

|  |
| --- |
| *Bloom's Level: 3. ApplyLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: General* |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28. | Which of the following is *incorrect* about scientific experiments?

|  |  |
| --- | --- |
| A.  | Hypotheses can be rejected.  |

|  |  |
| --- | --- |
| B.  | Alternative hypotheses can be proposed and tested after initial experimentation.  |

|  |  |
| --- | --- |
| **C.**  | A scientific theory is mainly an educated "guess."  |

|  |  |
| --- | --- |
| D.  | Supernatural phenomena are not scientifically testable.  |

|  |  |
| --- | --- |
| E.  | In a control experiment, the variable is not altered.  |

 |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Section: 01.06Topic: General* |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29. | Who is credited for discovering cells?

|  |  |
| --- | --- |
| A.  | Charles Darwin  |

|  |  |
| --- | --- |
| B.  | Anton van Leeuwenhoek  |

|  |  |
| --- | --- |
| **C.**  | Robert Hooke  |

|  |  |
| --- | --- |
| D.  | Francis Crick  |

|  |  |
| --- | --- |
| E.  | Joseph Farman  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.07.01 State the cell theory, and describe how it was formulated in stages.Section: 01.07Topic: General* |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30. | DNA (deoxyribonucleic acid)

|  |  |
| --- | --- |
| **A.**  | contains the information specifying what an organism will be like.  |

|  |  |
| --- | --- |
| B.  | is a source of energy that can be harvested by an organism.  |

|  |  |
| --- | --- |
| C.  | is only present in higher organisms.  |

|  |  |
| --- | --- |
| D.  | is not passed from parent to offspring.  |

|  |  |
| --- | --- |
| E.  | is the main structural protein of cells.  |

 |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.07.02 State the gene theory, and define the term gene.Section: 01.07Topic: General* |

|  |  |
| --- | --- |
| 31. | Evolution is the genetic change in an organism over time.   **TRUE** |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.07.04 State the theory of evolution and how it is related to the gene theory.Section: 01.04Section: 01.07Topic: General* |

|  |  |
| --- | --- |
| 32. | Some living organisms possess RNA as their only genetic material.   **FALSE** |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.02.01 Name and describe the five basic properties shared by all living things.Section: 01.02Topic: General* |

|  |  |
| --- | --- |
| 33. | The kingdom that includes mushrooms and yeast is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   **Fungi** |

|  |
| --- |
| *Bloom's Level: 2. UnderstandLearning Outcome: 01.01.01 List the six kingdoms of life.Section: 01.01Topic: GeneralTopic: Taxonomy and Systematics* |

|  |  |
| --- | --- |
| 34. | All living things use energy, a property known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   **metabolism** |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.02.01 Name and describe the five basic properties shared by all living things.Section: 01.02Topic: General* |

|  |  |
| --- | --- |
| 35. | As life forms become more advanced, new properties occur. These properties are referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   **emergent** |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.03.02 Explain the origin of emergent properties.Section: 01.03Topic: General* |

|  |  |
| --- | --- |
| 36. | The information that determines what an organism will be like is stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_ molecule.   **DNA** |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.02.01 Name and describe the five basic properties shared by all living things.Section: 01.02Section: 01.07Topic: General* |

|  |  |
| --- | --- |
| 37. | Cells with a similar structure and function are organized into \_\_\_\_\_\_\_\_\_\_\_\_ in the body.   **tissues** |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.03.01 List the 13 hierarchical levels of the organization of life, and factor them into 3 general levels of complexity.Section: 01.03Topic: General* |

|  |  |
| --- | --- |
| 38. | The ozone-destroying contaminants in the upper atmosphere were found to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   **chlorofluorocarbons, or CFCs** |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: Conservation BiologyTopic: General* |

|  |  |
| --- | --- |
| 39. | The final step in the scientific process is the development of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   **conclusion** |

|  |
| --- |
| *Bloom's Level: 1. RememberLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: General* |

|  |  |
| --- | --- |
| 40. | The theory that relates to the diversity of life is the theory of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   **evolution** |

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| *Bloom's Level: 2. UnderstandLearning Outcome: 01.07.04 State the theory of evolution and how it is related to the gene theory.Section: 01.07Topic: General* |

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| 41. | A layer of ozone in the atmosphere shields the earth from harmful \_\_\_\_\_\_\_\_\_\_\_\_\_\_.   **UV rays** |

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| *Bloom's Level: 2. UnderstandLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: Conservation BiologyTopic: General* |

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| 42. | A collection of related hypotheses that have been shown to be true after extensive testing can be collectively called a \_\_\_\_\_\_\_\_\_\_.   **theory** |

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| *Bloom's Level: 1. RememberLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Section: 01.06Topic: General* |

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| 43. | The process where organisms act to maintain a relatively stable internal environment is \_\_\_\_\_\_\_\_\_\_\_.   **homeostasis** |

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| *Bloom's Level: 1. RememberLearning Outcome: 01.04.01 List and explain the five general themes that define biology as a science.Section: 01.02Section: 01.04Topic: General* |

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| 44. | All organisms on earth encode their genes in strands of \_\_\_\_\_\_\_\_\_.   **DNA** |

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| *Bloom's Level: 1. RememberLearning Outcome: 01.07.02 State the gene theory, and define the term gene.Section: 01.07Topic: General* |

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| 45. | A discrete unit of genetic information is called a \_\_\_\_\_\_\_\_\_\_\_.   **gene** |

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| *Bloom's Level: 1. RememberLearning Outcome: 01.07.02 State the gene theory, and define the term gene.Section: 01.07Topic: General* |

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| 46. | Explain why a student of biology needs to study the hierarchy of levels of organization within and among living things.    |

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| *Bloom's Level: 2. UnderstandLearning Outcome: 01.03.01 List the 13 hierarchical levels of the organization of life, and factor them into 3 general levels of complexity.Section: 01.03Topic: General* |

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| 47. | Many people think the term "theory" means someone's idea about something. Explain the scientific use of the term "theory", especially as it relates to the biological concept of evolution.    |

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| *Bloom's Level: 2. UnderstandLearning Outcome: 01.06.01 Define hypothesis and theory, and distinguish between them.Section: 01.06Topic: General* |

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| 48. | Explain how a depletion in ozone might lead to a rise in the incidence of skin cancer.    |

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| *Bloom's Level: 2. UnderstandLearning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases.Section: 01.05Topic: Conservation BiologyTopic: General* |

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| 49. | Why is the study of biology central to the understanding and solving of the world's great environmental problems?    |

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| *Bloom's Level: 2. UnderstandLearning Outcome: 01.01.01 List the six kingdoms of life.Section: 01.01Topic: Conservation BiologyTopic: General* |

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| 50. | Why is it impossible for supernatural, religious, and unexplained phenomena to be explained by biology?    |

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| *Bloom's Level: 2. UnderstandLearning Outcome: 01.06.01 Define hypothesis and theory, and distinguish between them.Section: 01.06Topic: General* |

Chapter 01 Test Bank Summary

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| *Category* | *# of Questions* |
| Bloom's Level: 1. Remember | 26 |
| Bloom's Level: 2. Understand | 21 |
| Bloom's Level: 3. Apply | 3 |
| Learning Outcome: 01.01.01 List the six kingdoms of life. | 6 |
| Learning Outcome: 01.02.01 Name and describe the five basic properties shared by all living things. | 7 |
| Learning Outcome: 01.03.01 List the 13 hierarchical levels of the organization of life, and factor them into 3 general levels of complexity. | 6 |
| Learning Outcome: 01.03.02 Explain the origin of emergent properties. | 1 |
| Learning Outcome: 01.04.01 List and explain the five general themes that define biology as a science. | 4 |
| Learning Outcome: 01.05.01 Explain how the six stages of a scientific investigation allow biologists to discover general principles by careful examination of specific cases. | 15 |
| Learning Outcome: 01.06.01 Define hypothesis and theory, and distinguish between them. | 3 |
| Learning Outcome: 01.07.01 State the cell theory, and describe how it was formulated in stages. | 1 |
| Learning Outcome: 01.07.02 State the gene theory, and define the term gene. | 3 |
| Learning Outcome: 01.07.03 State the theory of heredity and explain how it is related to the chromosomal theory of inheritance. | 1 |
| Learning Outcome: 01.07.04 State the theory of evolution and how it is related to the gene theory. | 3 |
| Section: 01.01 | 6 |
| Section: 01.02 | 8 |
| Section: 01.03 | 7 |
| Section: 01.04 | 7 |
| Section: 01.05 | 15 |
| Section: 01.06 | 6 |
| Section: 01.07 | 9 |
| Topic: Conservation Biology | 8 |
| Topic: General | 50 |
| Topic: Taxonomy and Systematics | 3 |