This chapter has 60 questions.
Scroll down to see and select individual questions or narrow the list using the checkboxes below.

Select 0 questions at random and keep in order ▽

☐ *Multiple Choice Questions* - (44)

☐ *True/False Questions* - (12)

☐ *Short Answer Questions* - (3)

☐ *Yes/No Questions* - (1)

☐ *Odd Numbered* - (30)

☐ *Even Numbered* - (30)

☐ Bloom's Level: 1. Remember - (23)

☐ Bloom's Level: 2. Understand - (18)

☐ Bloom's Level: 3. Apply - (7)

☐ Bloom's Level: 4. Analyze - (5)

☐ Bloom's Level: 5. Evaluate - (4)

☐ Bloom's Level: 6. Create - (3)

☐ Learning Outcome: 01.01.01 Explain the basic characteristics that are common to all living organisms. - (5)

☐ Learning Outcome: 01.01.02 Describe the levels of organization of life. - (6)

☐ Learning Outcome: 01.01.03 Summarize how the terms homeostasis, metabolism, development, and adaptation all relate to living organisms. - (3)

☐ Learning Outcome: 01.01.04 Explain why the study of evolution is important in understanding life. - (3)

☐ Learning Outcome: 01.02.01 Summarize the place of humans in the overall classification of living organisms. - (5)

☐ Learning Outcome: 01.02.02 Describe the relationship between humans and the biosphere, and the role of culture in shaping that relationship. - (5)

☐ Learning Outcome: 01.03.01 Describe the general process of the scientific method. - (9)

☐ Learning Outcome: 01.03.02 Distinguish between a control group and an experimental group in a scientific test. - (5)

☐ Learning Outcome: 01.03.03 Recognize the importance of scientific journals in the reporting of scientific information. - (4)

☐ Learning Outcome: 01.04.01 Explain the difference between anecdotal and testimonial data. - (3)

☐ Learning Outcome: 01.04.02 Interpret information that is presented in a scientific graph. - (3)

☐ Learning Outcome: 01.04.03 Recognize the importance of statistical analysis to the study of science. - (3)

☐ Learning Outcome: 01.05.01 Recognize the importance of ethics in scientific studies. - (3)

☐ Learning Outcome: 01.05.02 Discuss the need for the general public to have a general understanding of science and its relationship to society. - (3)

☐ Section: 01.01 - (17)

☐ Section: 01.02 - (10)

☐ Section: 01.03 - (18)

☐ Section: 01.04 - (9)

☐ Section: 01:05 - (6)

☐ Topic: Science - (60)

1. The scientific study of life is called:
   → ○ biology
   ○ ecology
   ○ anatomy
   ○ biochemistry
   ○ limnology

Select

Bloom's Level: 1. Remember
Learning Outcome: 01.01.02 Describe the levels of organization of life.
Section: 01.01
Topic: Science

Multiple Choice Question
Definition of biology

Select 2. A complex individual that consists of organ systems is known as a/an
   ○ community.
   ○ population.

→ ○ organism.

○ tissue.

○ species.

A complex individual that consists of organ systems is known as an organism.

Bloom's Level: 1. Remember
Learning Outcome: 01.01.02 Describe the levels of organization of life.
Multiple Choice Question   Section: 01.01
Definition of organism   Topic: Science

3. All of the ecosystems on the planet together are called the

○ atmosphere.

○ hydrosphere.

→ ○ biosphere.

○ lithosphere.

○ stratosphere.

Select

The biosphere is the sphere that contains all life, made up of all Earth's ecosystems.

Bloom's Level: 1. Remember
Learning Outcome: 01.01.02 Describe the levels of organization of life.
Multiple Choice Question   Section: 01.01
Definition of the   Topic: Science
biosphere

4. In a swamp, all of the alligators would represent a/an

○ organism.

→ ○ population.

○ community.

○ ecosystem.

○ biosphere.

Select

The alligators in a swamp are all members of one species and belong to a population.

Bloom's Level: 2. Understand
Learning Outcome: 01.01.02 Describe the levels of organization of life.
Multiple Choice Question   Section: 01.01
Example of a population   Topic: Science

Select 5. Organisms are composed of multiple cells.

○ True

→ ○ False

Some organisms are single cells.

True / False Question
Makeup of
organisms

Bloom's Level: 2. Understand
Learning Outcome: 01.01.01 Explain the basic characteristics that
are common to all living organisms.
Section: 01.01
Topic: Science

6. The region in which populations interact with each other and with the physical environment is called

- ○ an entity.
- → ○ an ecosystem.
- ○ a biosystem.
- ○ a community.
- ○ a biosphere.

Select 🔍

An ecosystem includes populations of organisms interacting with each other and the physical environment.

Bloom's Level: 1. Remember
Learning Outcome: 01.01.02 Describe the levels of
organization of life.
Section: 01.01
Topic: Science

Multiple Choice Question
Description of an
ecosystem

7. All of the changes that occur from the time an egg is fertilized through childhood, adolescence, and adulthood are called

- ○ metabolism.
- ○ evolution.
- ○ homeostasis.
- ○ reproduction.
- → ○ development.

Select 🔍

Development includes the changes that occur in an organism throughout its lifetime.

Bloom's Level: 1. Remember
Learning Outcome: 01.01.03 Summarize how the terms
homeostasis, metabolism, development, and adaptation all
relate to living organisms.
Section: 01.01
Topic: Science

Multiple Choice Question
Definition of
development

Select 🔍 8. Which of the following statements most correctly defines homeostasis?

- ○ All living organisms are alike.
- ○ Living organisms do not change much over time.
- ○ Human beings and other animals acquire materials and energy when they eat food.
- ○ It takes energy to maintain the organization of the cell.
- → ○ Cells and organisms must be able to maintain a fairly constant internal environment.

Homeostasis is the ability of living things to maintain an internal environment that operates under specific conditions.

Bloom's Level: 4. Analyze
Learning Outcome: 01.01.03 Summarize how the terms homeostasis, metabolism, development, and adaptation all relate to living organisms.

Multiple Choice Question
Definition of   Section: 01.01
homeostasis   Topic: Science

9. Viruses are not considered alive. Which of the following characteristics of living things do they lack?
    ○ Living things reproduce.
    ○ Living things have an evolutionary history.
    → ○ Living things grow and develop.
    ○ Living things respond to stimuli.
    ○ Living things acquire energy.

Select 🔍

Viruses can reproduce in that they make copies of themselves and they do have an evolutionary history. Viruses do not grow and develop. They will respond to new stimuli and have the ability to acquire energy from the host cell.

Bloom's Level: 3. Apply
Learning Outcome: 01.01.01 Explain the basic characteristics that are common to all living organisms.

Multiple Choice Question   Section: 01.01
Features of viruses   Topic: Science

10. Four million years ago, horses were rather small compared to today's horses and had relatively stocky bodies with a straight shoulder and thick neck. This statement is an example of which biological concept?
    ○ metabolism
    → ○ evolution
    ○ development
    ○ homeostasis
    ○ reproduction

Select 🔍

Evolution is the process by which a species changes through time.

Bloom's Level: 5. Evaluate
Learning Outcome: 01.01.04 Explain why the study of evolution is important in understanding life.

Multiple Choice Question   Section: 01.01
Features of evolution   Topic: Science

Select 🔍 11. Which of the following is not a basic characteristic of all living things?
    ○ Living things are organized.

○ Living things acquire materials and energy.

→ ○ Living things contain a nucleus and organelles.

○ Living things reproduce.

○ Living things grow and develop.

Not all living things have a nucleus and organelles.

Bloom's Level: 2. Understand
Learning Outcome: 01.01.01 Explain the basic characteristics
that are common to all living organisms.

Multiple Choice Question   Section: 01.01
Features of living things   Topic: Science

12. The face of a sunflower turns to follow the sun as it moves across the sky. This is an example of

○ metabolism.

○ homeostasis.

→ ○ response to stimuli.

○ development.

○ reproduction.

Select

Movement in response to sunlight is an example of response to an external stimulus.

Bloom's Level: 3. Apply
Learning Outcome: 01.01.01 Explain the basic characteristics
Multiple Choice Question   that are common to all living organisms.
Features of living   Section: 01.01
organisms   Topic: Science

13. Choose the CORRECT order (1-5) of increasing complexity/organization.

○ (1) tissues, (2) organ systems, (3) cells, (4) organs, (5) organism

○ (1) cells, (2) organ systems, (3) tissues, (4) organs, (5) organism

○ (1) tissues, (2) organs, (3) organ systems, (4) cells, (5) organism

→ ○ (1) cells, (2) tissues, (3) organs, (4) organ systems, (5) organism

○ (1) organism, (2) organ systems, (3) organs, (4) tissues, (5) cells

Select

The levels of organization include: (1) cells, (2) tissues, (3) organs, (4) organ systems, (5) organism.

Bloom's Level: 2. Understand
Learning Outcome: 01.01.02 Describe the levels of
Multiple Choice Question   organization of life.
Levels of biological   Section: 01.01
organization   Topic: Science

Select   14. The process of change that produces the diversity of life on Earth is called

→ ○ evolution.

○ homeostasis.

○ levels of organization.

○ biological classification.

○ molecular diversification.

Evolution is the process of change that produces the diversity of life on Earth.

Bloom's Level: 1. Remember
Learning Outcome: 01.01.04 Explain why the study of
evolution is important in understanding life.

Multiple Choice Question   Section: 01.01
Definition of evolution   Topic: Science

15. The development of resistance of MRSA bacteria to antibiotics is an example of

○ homeostasis.

○ metabolism.

→ ○ evolution.

○ reproduction.

○ organization.

Select 🔍

Resistance in MRSA is an example of adaptation and evolution.

Bloom's Level: 3. Apply
Learning Outcome: 01.01.04 Explain why the study of
evolution is important in understanding life.

Multiple Choice Question   Section: 01.01
Example of evolution   Topic: Science

16. Fish have scales that enable them to live in a water environment. This is an example of

○ homeostasis.

→ ○ adaptation.

○ metabolism.

○ development.

○ cellular organization.

Select 🔍

Adaptation provides members of a population with a better chance for survival. Fish scales are an adaptation to their environment.
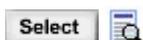
Bloom's Level: 2. Understand
Learning Outcome: 01.01.03 Summarize how the terms
homeostasis, metabolism, development, and adaptation all
relate to living organisms.

Multiple Choice Question   Section: 01.01
Example of adaptation   Topic: Science

Select 🔍 17. The Domain Eukarya contain(s) _____ kingdom(s).

○ one

○ two

○ three

→ ○ four

○ five

The four kingdoms in Domain Eukarya include: plants, fungi, animals, and protists.

Bloom's Level: 1. Remember
Learning Outcome: 01.02.01 Summarize the place of
Multiple Choice Question   humans in the overall classification of living organisms.
Number of kingdoms in domain   Section: 01.02
Eukarya   Topic: Science

18. Traditions, beliefs, and values are considered what aspect of human life?

○ communicative

→ ○ cultural

○ instructional

○ biological

○ chemical

Select 🔍

Cultural activities of humans include traditions, beliefs, and values.

Bloom's Level: 2. Understand
Learning Outcome: 01.02.02 Describe the relationship between
humans and the biosphere, and the role of culture in shaping
that relationship.
Multiple Choice Question   Section: 01.02
Definition of culture   Topic: Science

19. The cell you are examining under the microscope appears to contain a nucleus. This
organism belongs to the domain

○ Bacteria.

○ Archaea.

→ ○ Eukarya.

○ Animalia.

○ Fungi.

Select 🔍

Only domain Eukarya contains organisms that contain a nucleus. Animalia and
Fungi are both kingdoms within the domain Eukarya.

Bloom's Level: 2. Understand
Learning Outcome: 01.02.01 Summarize the place of humans
Multiple Choice Question   in the overall classification of living organisms.
Features of domain   Section: 01.02
Eukarya   Topic: Science

Select 🔍 20. Which organisms are most closely related to humans?

○ spiders

○ earthworms

○ parakeets

→ ○ meerkats

○ snakes

All of these are animals. Only snakes, parakeets, and meerkats are vertebrates. Only meerkats are mammals, therefore meerkats are most closely related to humans.

Bloom's Level: 4. Analyze
Learning Outcome: 01.02.01 Summarize the place of humans in the overall classification of living organisms.
Section: 01.02
Topic: Science

Multiple Choice Question
Organisms most closely related to humans

21. Humans evolved from apes.

○ True

→ ○ False

Today's apes are our evolutionary cousins. Humans did not evolve from apes.

Select 🔍

Bloom's Level: 2. Understand
Learning Outcome: 01.02.01 Summarize the place of humans in the overall classification of living organisms.
Section: 01.02
Topic: Science

True / False Question
Relatedness between humans and apes

22. Only humans have a language that allows us to communicate information and experiences symbolically.

→ ○ True

○ False

Humans are the only animals with this capacity.

Select 🔍

Bloom's Level: 1. Remember
Learning Outcome: 01.02.02 Describe the relationship between humans and the biosphere, and the role of culture in shaping that relationship.
Section: 01.02
Topic: Science

True / False Question
Features of humans

Select 🔍 23. Humans clear forests to grow crops, and they build houses and cities. What are these an example of?

→ ○ how humans modify the biosphere

○ how humans preserve ecosystems

○ the high value humans place on biodiversity

○ the positive impact of humans on life on Earth

○ how humans do not need the rest of life on Earth

These are an example of how humans modify the biosphere, often to their own detriment.

Bloom's Level: 3. Apply
Learning Outcome: 01.02.02 Describe the relationship between humans and the biosphere, and the role of culture in shaping that relationship.
Multiple Choice Question
Examples of how humans
Section: 01.02
modify the biosphere
Topic: Science

24. Humans are part of the biosphere and must live in harmony with it if we are to survive as a species.
   → ○ True
   ○ False

All living things on Earth are part of the biosphere. We are dependent on the rest of the biosphere and must preserve it.

Select

Bloom's Level: 2. Understand
Learning Outcome: 01.02.02 Describe the relationship between humans and the biosphere, and the role of culture in shaping that relationship.
True / False Question
Role of humans in the
Section: 01.02
biosphere
Topic: Science

25. Humans have identified and named almost all of the 15 million species on Earth.
   ○ True
   → ○ False

Humans have only identified and named under 2 million species on Earth.

Select

Bloom's Level: 1. Remember
Learning Outcome: 01.02.02 Describe the relationship between humans and the biosphere, and the role of culture in shaping that relationship.
True / False Question
Identification of species
Section: 01.02
on Earth
Topic: Science

Select

26. _____ observations are supported by factual information while _____ observations involve personal judgment.
   ○ Subjective/analytical
   ○ Objective/analytical
   → ○ Objective/subjective
   ○ Objective/hypothetical
   ○ Subjective/theoretical

Objective observations are supported by factual information while subjective observations involve personal judgment.

Multiple Choice Question   Bloom's Level: 1. Remember
Types of observations   Learning Outcome: 01.03.01 Describe the general process of
the scientific method.
Section: 01.03
Topic: Science

27. Which of the following statements is an objective observation?
- ○ This milk tastes funny.
- → ○ This package is larger than that one.
- ○ I like this picture.
- ○ This mattress feels hard to me.
- ○ I think I am going to be sick.

Select

Only the observation that one package is larger than another is objective--it can be
measured. The rest of the statements rely on personal opinion.

Bloom's Level: 4. Analyze
Learning Outcome: 01.03.01 Describe the general
Multiple Choice Question   process of the scientific method.
Example of objective   Section: 01.03
observations   Topic: Science

28. What is the unifying principle of the biological sciences?
- ○ Technology
- ○ Anatomy
- ○ Biochemistry
- ○ Taxonomy
- → ○ Evolution

Select

The unifying principle of the biological sciences is evolution.

Bloom's Level: 1. Remember
Learning Outcome: 01.03.01 Describe the general process
Multiple Choice Question   of the scientific method.
Unifying principle of   Section: 01.03
biology   Topic: Science

Select   29. Where on the graph can you find the information that the graph pertains to?
- → ○ The x & y axis
- ○ The x & z axis.
- ○ The dot points that are connected by the lines of the graph.
- ○ The top of each bar in a bar graph.
- ○ The y & z axis.

The axis of the graph contains information about what the graph pertains to. Graphs
do not contain a z axis. The top of the bar in bar graphs will not contain any
information.

30. The tentative explanation to be tested is called
   - ○ a theory.
   - ○ a hunch.
   - → ○ a hypothesis.
   - ○ the data.
   - ○ the conclusion.

Select

A hypothesis is a tentative explanation to be tested.

31. Line graphs are used to depict the relationship between two quantities.
   - → ○ True
   - ○ False

True, line graphs are used to depict the relationship between two quantities.

Select

32. The information collected during the experiment or observation is called
   - ○ a theory.
   - ○ a hunch.
   - ○ the hypothesis.
   - → ○ the data.
   - ○ the conclusion.

Select

Data includes the information collected during the experiment or an observation.

Select   33.

The general public needs to have an understanding of science in order to make informed decisions about the future of our species.

→ ○ True
○ False

True, the general public needs to have an understanding of science in order to make informed decisions about the future of our species.

True / False Question
Public understanding of science

Bloom's Level: 1. Remember
Learning Outcome: 01.05.02 Discuss the need for the general public to have a general understanding of science and its relationship to society.
Section: 01:05
Topic: Science

34. Which of the following statements would be considered anecdotal data?

→ ○ "I lost 21 lbs on the Atkins diet."

○ Out of a study of 23 individuals, 12 participants lost between 15 and 22 pounds on the Atkins diet.

○ The average weight loss for participants in the Atkins diet was 15 pounds in 8 weeks.

○ The South Beach diet helped 27 people lose between 22 and 32 pounds over the course of 12 weeks.

○ Participants who stayed on the South Beach Diet for a total of 12 weeks lost an average of 22 pounds.

Select

Anecdotal data tends to consist of testimonials from an individual rather than results from a controlled study. All of the other statements are results from controlled studies.

Multiple Choice Question
Anecdotal data

Bloom's Level: 2. Understand
Learning Outcome: 01.04.01 Explain the difference between anecdotal and testimonial data.
Section: 01.04
Topic: Science

Select 35. Which of the following is not a basic theory of biology?

○ Theory of ecosystems

○ Cell theory

○ Gene theory

○ Theory of evolution

→ ○ Theory of gravity

The theory of gravity is not a biological theory. The law of gravity is found in physics.

Multiple Choice Question
Theories in biology

Bloom's Level: 1. Remember
Learning Outcome: 01.03.01 Describe the general process of

36. Which study could be rejected on the grounds of testimonial data?

→ ○ A study about the effects of herbicide on Japanese beetles was conducted in the laboratory using a sample size of 20 beetles.

○ A study about the effects of herbicide on Japanese beetles was conducted in Illinois using a 20 acre field as a study site.

○ A study about the effectiveness of antacids in a study group of of 200 people who suffer from ulcers.

○ A study about the impact zebra mussels have upon the Great Lakes.

○ A study consisting of 200 test subjects who are interested in a new weight loss pill.

Select

Testimonial data are suspect because the effect of whatever is under investigation may not have been studied with a large number of subjects or a control group.

Bloom's Level: 4. Analyze
Learning Outcome: 01.04.01 Explain the difference between anecdotal and testimonial data.
Multiple Choice Question   Section: 01.04
Testimonial data   Topic: Science

37. The cause of stomach ulcers appears to be

○ excess stomach acid.

→ ○ the bacterium *Helicobacter pylori.*

○ drinking too much coffee.

○ extreme stress.

○ diets rich in meat products.

Select

The bacterium Helicobacter pylori is a major contributor to stomach ulcers.

Bloom's Level: 2. Understand
Learning Outcome: 01.03.01 Describe the general process of the scientific method.
Multiple Choice Question   Section: 01.03
Cause of stomach ulcers   Topic: Science

Select 38. Which of the following statements is a hypothesis?

→ ○ If a student buys a meal plan he/she will eat more vegetables.

○ Ginny gained 5 lbs her freshman year.

○ Blake failed the test.

○ There are more calories in french fries than in colas.

○ I like my biology class better than my other classes.

If/then statements are often hypotheses. The other statements do not propose

something that can be tested.

Multiple Choice Question
Example of a hypothesis

39. A controlled study when neither the patient nor the examiner is aware of whether the patient is receiving a treatment, is called a/an

- ○ statistical study.
- → ○ double-blind study.
- ○ variable study.
- ○ adaptive study.
- ○ blind study.

Select 🔍

In a double-blind study, neither the patient nor the examiner is aware of whether the patient is receiving a treatment.

Multiple Choice Question
Example of a double-blind study

40. In an experiment designed to test the effect of temperature on goldfish respiration, the temperatures that were changed represent what type of variable?

- ○ control
- ○ responding
- → ○ experimental
- ○ correlative
- ○ placebo

Select 🔍

The temperatures are being changed by the researchers and are called the experimental variables.

Multiple Choice Question
Identify experimental variables

Select 🔍 41. The purpose of informed consent is

- ○ to determine whether a patient is acceptable for a particular study.
- ○ to ensure that the doctor does not know which patient is receiving the treatment.
- ○ to decide whether a patient goes into the test group or the control group.
- → ○ to ensure the patient knows the risks and is volunteering.

○ to determine whether the treatment works.

Informed consent ensures that subjects know details about the research and that their participation is voluntary.

Bloom's Level: 2. Understand
Learning Outcome: 01.03.02 Distinguish between a control
group and an experimental group in a scientific test.
Multiple Choice Question
Purpose of informed
Section: 01.03
consent
Topic: Science

42. If the control group in an experiment shows the same results as the test group, the treatment was successful.
   ○ True
   → ○ False

If the control and test group show the same results, the treatment has no effect and the experiment is invalid.

Bloom's Level: 2. Understand
Learning Outcome: 01.03.02 Distinguish between a
control group and an experimental group in a
True / False Question
scientific test.
Drawing a conclusion from the
Section: 01.03
results of an experiment
Topic: Science

43. To make all subjects think they are receiving the same treatment, patients in the control group can receive a placebo.
   → ○ True
   ○ False

A placebo is a treatment that appears to be the same as that administered to the test group but contains no medication.

Bloom's Level: 1. Remember
Learning Outcome: 01.03.02 Distinguish between a control group
and an experimental group in a scientific test.
True / False Question
Section: 01.03
Experimental design
Topic: Science

44. One of the difficulties with publication of research in scientific journals is that it
   → ○ is technical and may be difficult for a layperson to read.
   ○ is often out of context or misunderstood.
   ○ is unverified and usually not referenced.
   ○ displays bias.
   ○ is designed to convince readers to purchase a product.

Scientific journals are often technical and difficult to read and understand for those outside of the field.

Multiple Choice Question
Publication in scientific journals

Bloom's Level: 2. Understand
Learning Outcome: 01.03.03 Recognize the importance of scientific journals in the reporting of scientific information.
Section: 01.03
Topic: Science

45. Which of the following URLs would you perhaps distrust in writing a scientific paper?

→ ○ .com
○ .gov
○ .edu
○ .org
○ Both .edu and .gov

Select

URLs that end in .com often represent companies that are intending to sell you a product and may not present trustworthy information.

Bloom's Level: 1. Remember
Learning Outcome: 01.03.03 Recognize the importance of scientific journals in the reporting of scientific information.
Section: 01.03
Topic: Science

Multiple Choice Question
Invalid scientific information

46. An important part of scientific research is repeatability.

→ ○ True
○ False

Select

Another scientist should be able to repeat the experiment in a different location and get the same, or very similar, results.

Bloom's Level: 2. Understand
Learning Outcome: 01.03.03 Recognize the importance of scientific journals in the reporting of scientific information.
Section: 01.03
Topic: Science

True / False Question
Importance of repeatability in science
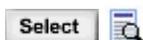
Select 47. The standard error tells

○ how often the examiner made an error.
○ how often the experimental variable was tested.
○ the relationship between the control and test groups.
○ whether or not the research has been published in a scientific journal.
→ ○ how uncertain a particular value is.

The standard error is a statistical term that tells how uncertain a particular value is.

Multiple Choice Question
Information gained from the standard error

Bloom's Level: 1. Remember
Learning Outcome: 01.04.03 Recognize the importance of statistical analysis to the study of science.

48. A probability value of less than 5% in a scientific study is acceptable.
→ ○ True
   ○ False

Select

This is acceptable, but keep in mind that the lower the p value, the less likely that results are due to chance.

True / False Question
Importance of probability
value

49. Which of the following is an example of correlation without causation?
   ○ HPV can cause cervical cancer.
   ○ Illegal drug use causes an increase in crime.
   ○ *Helicobacter pylori* can cause ulcers.
→ ○ People who commit crimes also consume bread.
   ○ Parents have children.

Select

Many people consume bread and consuming bread does not make you commit crimes.

Multiple Choice Question
Correlation without
causation

50. In a graph, the experimental variable is plotted on the
→ ○ x axis.
   ○ y axis.
   ○ x and y axis.
   ○ z axis.
   ○ x and z axis.

Select

The experimental variable is plotted on the x or horizontal axis.

Multiple Choice Question
Plotting experimental
variables

Select 51. Jessica is interested in a new vitamin pill her friend recommended. Her friend told her that it really helped her. Should Jessica accept this type of evidence?

○ Yes

→ ○ No

No, this is anecdotal, or testimonial evidence, and is not scientifically reliable.

Bloom's Level: 3. Apply

Learning Outcome: 01.04.01 Explain the difference between

Yes / No Question
Value of anecdotal
evidence

anecdotal and testimonial data.
Section: 01.04
Topic: Science

52. Choose the following interest group that should be held most responsible for the future roles of new scientific technologies.

○ Scientists

○ Politicians

○ Clergy

○ Educators

→ ○ Everyone

Select

Everyone should be held responsible for the future roles of new scientific technologies.

Bloom's Level: 2. Understand

Learning Outcome: 01.05.02 Discuss the need for

Multiple Choice Question
Individuals who should be
responsible for scientific
information

the general public to have a general understanding
of science and its relationship to society.
Section: 01:05
Topic: Science

53. In conducting a review of the literature on the Internet, which of the following sources would be the least reliable?

○ The Centers of Disease Control

○ The Cystic Fibrosis Foundation

○ The National Institute of Health

○ The Pasteur Institute

→ ○ Astrology and Medicine

Select

The source Astrology and Medicine would be the least reliable.

Bloom's Level: 5. Evaluate

Learning Outcome: 01.03.03 Recognize the importance
of scientific journals in the reporting of scientific

Multiple Choice Question
Identifying reliable sources of
information

information.
Section: 01.03
Topic: Science

Select 54. After studying biology, it is hoped that you

○ will become an animal rights activist.

→ ⃝ will be better able to make wise decisions regarding your own well being and the Earth's.

⃝ will get a high paying job as a biologist.

⃝ will understand all there is to know about humans and biology.

⃝ will dislike anything to do with biology.

After studying biology, it is hoped that you will be better able to make wise decisions regarding your own well-being and the Earth's.

Bloom's Level: 3. Apply

Learning Outcome: 01.05.02 Discuss the need for the general public to have a general understanding of science and its

Multiple Choice Question   relationship to society.

Value of studying   Section: 01:05

biology   Topic: Science

55. Technology is the application of scientific knowledge to the interests of humans.

→ ⃝ True

⃝ False

Technology, the application of scientific knowledge, offers us ways to improve our lives.

Bloom's Level: 1. Remember

Learning Outcome: 01.05.01 Recognize the importance of ethics in scientific studies.

True / False Question   Section: 01:05

Value of technology   Topic: Science

56. Scientists who have a financial stake in a company are now required to state that when they do research. This is an example of

→ ⃝ ethics in science.

⃝ financial planning.

⃝ a new business model.

⃝ a biotechnology revolution.

⃝ statistical significance.

A scientist who has a vested interest in the success of a product may not be honest in evaluating that product. This is an example of ethics in science.

Bloom's Level: 3. Apply

Learning Outcome: 01.05.01 Recognize the importance of

Multiple Choice Question   ethics in scientific studies.

Example of ethics in   Section: 01:05

science   Topic: Science

57. Which of the following statements explains the atomic bomb and the benefit of nuclear physics to cancer therapy?

→ ⃝ Science and technology are not risk free.

○ Science and technology are wrong.

○ Science and technology are good for mankind.

○ Science and technology are value-neutral.

○ Science and technology always provide value to people.

There are often risks and benefits to science and technology.

Multiple Choice Question
Benefits of science and
technology

Bloom's Level: 5. Evaluate
Learning Outcome: 01.05.01 Recognize the importance
of ethics in scientific studies.
Section: 01:05
Topic: Science

58. List the four kingdoms of life that are classified under the Domain Eukarya and indicate the key features of each.

Select

Explanation:
Kingdom Protista: Complex single celled organisms, sometimes filaments, colonies or even multicellular. Absorb, photosynthesize, and ingest food.
Kingdom Fungi: Mostly multicellular filaments with specialized, complex cells. Absorb food.
Kingdom Plantae: Multicellular, usually with specialized tissues, containing complex cells.
Kingdom Animalia: Multicellular with specialized tissues containing complex cells. Ingest cells.

Short Answer Question
Features of the kingdoms within
Domain Eukarya

Bloom's Level: 6. Create
Learning Outcome: 01.02.01 Summarize the place of
humans in the overall classification of living
organisms.
Section: 01.02
Topic: Science

Select 59. List the characteristics that are common to all living organisms.

Explanation:
Organisms are organized. They have the ability to acquire materials and energy. They can reproduce and grow. Organisms have an evolutionary history.

Short Answer Question
Characteristics common to all
living organisms

Bloom's Level: 6. Create
Learning Outcome: 01.01.01 Explain the basic
characteristics that are common to all living
organisms.

60. Describe the steps associated with the scientific method.

Select 🔍

Explanation:
Observation: New observations are made and previous data are studied.
Hypothesis: Input from various sources is used to formulate a testable statement.
Experiment / Observation: The hypothesis is tested by experiment or further observations.
Conclusion: The results are analyzed, and the hypothesis is supported or rejected.
Scientific Theory: Many experiments and observations support a theory.

Bloom's Level: 6. Create
Learning Outcome: 01.03.01 Describe the general
Short Answer Question   process of the scientific method.
Steps associated with the scientific   Section: 01.03
method   Topic: Science