


**Pool Canvas**

Add, modify, and remove questions. Select a question type from the Add Question drop-down list and click **Go** to add questions. Use Creation Settings to establish which default options, such as feedback and images, are available for question creation.

Add   [Creation Settings](#)

**Name** CHAPTER 1--INVITATION TO BIOLOGY

**Description**

**Instructions**

[Modify](#)

[Add Question Here](#)

Question 1 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** Humans are responsible for causing extinctions that are occurring \_\_\_\_\_ times faster than normal.

**Answer**

- 10
- 100
- 1000
- 10,000
- 100,000

[Add Question Here](#)

Question 2 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** Which is the smallest unit of life that can survive and reproduce on its own?

**Answer**

- an atom
- a cell
- a molecule
- an organ
- a population

[Add Question Here](#)

Question 3 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** All of the coyotes (*Canis latrans*) living in the Mojave Desert constitute a(an)

**Answer**

- ecosystem.
- community.
- biosphere.
- organism.
- population.

[Add Question Here](#)

Question 4 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** Which of the following is defined as "all populations of all species living in the same area?"

**Answer**

- ecosystem
- community
- biosphere
- organism
- population

[Add Question Here](#)

Question 5 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** Organisms designated as producers usually obtain their energy from

**Answer**

- other producers.
- dead consumers.
- decomposers.
- the sun.
- all of these.

[Add Question Here](#)

Question 6 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** As energy is transferred among organisms, some escapes from the environment as \_\_\_\_\_ energy.

**Answer**

- electrical
- heat
- light
- mechanical
- nuclear

[Add Question Here](#)

Question 7 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** The ability to maintain a constant internal environment is

**Answer**

- metabolism.
- homeostasis.
- development.
- physiology.
- thermoregulation.

[◀ Add Question Here](#)Question 8 **Multiple Choice** **0 points**[Modify](#) [Remove](#)**Question** Homeostasis provides what kind of environment?

- Answer**
- positive
  - constant
  - limiting
  - changing
  - chemical and physical

[◀ Add Question Here](#)Question 9 **Multiple Choice** **0 points**[Modify](#) [Remove](#)**Question** About 12 to 24 hours after the last meal, a person's blood sugar level normally varies from 60 to 90 milligrams per 100 milliliters of blood, although it may rise to 130 mg per 100 ml after meals high in carbohydrates. That the blood sugar level is maintained within a fairly narrow range, despite uneven intake of sugar, is due to the body's ability to carry out

- Answer**
- adaptation.
  - homeostasis.
  - inheritance.
  - metabolism.
  - all of these.

[◀ Add Question Here](#)Question 10 **Multiple Choice** **0 points**[Modify](#) [Remove](#)**Question** The instructions for growth and development are in

- Answer**
- proteins.
  - carbohydrates.
  - DNA.
  - energy.
  - homeostasis.

[◀ Add Question Here](#)Question 11 **Multiple Choice** **0 points**[Modify](#) [Remove](#)**Question** When the cells of an organism increase in number, size, or volume, this is called

- Answer**
- growth.
  - development.
  - reproduction.
  - evolution.
  - inheritance.

[◀ Add Question Here](#)Question 12 **Multiple Choice** **0 points**[Modify](#) [Remove](#)**Question** The process of transformation of the first cell of a new individual into an adult is called

- Answer**
- inheritance.
  - genetics.
  - reproduction.
  - development.
  - sex.

[◀ Add Question Here](#)Question 13 **Multiple Choice** **0 points**[Modify](#) [Remove](#)**Question** Which domain(s) is(are) made up of organisms without nuclei?

- Answer**
- Archaea
  - Bacteria
  - Eukarya
  - both Archaea and Bacteria
  - both Bacteria and Eukarya

[◀ Add Question Here](#)Question 14 **Multiple Choice** **0 points**[Modify](#) [Remove](#)**Question** Members of which kingdom are eukaryotes that range from multicelled seaweeds to single celled organisms?

- Answer**
- Animalia
  - Protista
  - Fungi
  - Plantae
  - Bacteria

[◀ Add Question Here](#)Question 15 **Multiple Choice** **0 points**[Modify](#) [Remove](#)**Question** Members of which kingdom are usually multicellular producers?

- Answer**
- Animalia
  - Protista
  - Fungi
  - Plantae
  - Archaea

[◀ Add Question Here](#)

- Question 16 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Which of the following scientific names is written correctly?
- Answer**
- Rosa canina
  - Rosa canina
  - Rosa canina
  - Rosa canina
  - none of the choices
- [Add Question Here](#)
- Question 17 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Which is the correct format for a scientific name?
- Answer**
- Homo Sapiens
  - Homo Sapiens*
  - homo sapiens
  - Homo sapiens*
  - Homo sapiens*
- [Add Question Here](#)
- Question 18 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** A scientific name consists of which of the following?
- Answer**
- family name
  - genus name
  - species designation only
  - family name and genus name
  - genus name and specific epithet
- [Add Question Here](#)
- Question 19 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** The most diverse and inclusive classification group is the
- Answer**
- domain.
  - genus.
  - kingdom.
  - phylum.
  - species.
- [Add Question Here](#)
- Question 20 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Which of the following scientists defined a species as one or more groups of individuals that can potentially interbreed, produce fertile offspring, and do not interbreed with other groups?
- Answer**
- Charles Darwin
  - Carolus Linnaeus
  - Mary Leakey
  - Gregor Mendel
  - Ernst Mayr
- [Add Question Here](#)
- Question 21 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** The eighteenth-century naturalist Carolus Linnaeus is known for creating
- Answer**
- the theory of natural selection.
  - a system for naming and classifying organisms.
  - the biological species concept.
  - the first microscope.
  - the scientific method.
- [Add Question Here](#)
- Question 22 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** All of the following will strengthen a scientific theory EXCEPT
- Answer**
- repetitions of experiments.
  - increased number of observations.
  - time.
  - faith.
  - confirmation by many scientists.
- [Add Question Here](#)
- Question 23 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Critical thinking is the process of
- Answer**
- finding fault in others.
  - unconditionally accepting information from a trusted source.
  - designing a scientific experiment.
  - making a hypothesis.
  - judging the quality of information before accepting it.
- [Add Question Here](#)
- Question 24 **Multiple Choice** **0 points** [Modify](#) [Remove](#)

**Question** A testable explanation for a natural phenomenon is a(n)

- Answer**
- experiment.
  - hypothesis.
  - prediction.
  - model.
  - theory.

[◀ Add Question Here](#)

Question 25 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** When one arrives at a conclusion based upon one's observations, this is

- Answer**
- inductive reasoning.
  - deductive reasoning.
  - critical thinking.
  - logic.
  - the scientific method.

[◀ Add Question Here](#)

Question 26 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** A scientist investigates the result of varying temperature on the growth rate of a bacterial culture. In this experiment, temperature would be the

- Answer**
- dependent variable.
  - independent variable.
  - control.
  - model.
  - hypothesis.

[◀ Add Question Here](#)

Question 27 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** In order to arrive at a solution to a problem, a scientist usually proposes and tests

- Answer**
- laws.
  - theories.
  - hypotheses.
  - principles.
  - facts.

[◀ Add Question Here](#)

Question 28 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** To eliminate the influence of uncontrolled variables during experimentation, one should

- Answer**
- increase the sampling error as much as possible and suspend judgment.
  - establish a control group identical to the experimental group except for the variable being tested.
  - use inductive reasoning to construct a hypothesis.
  - both increase the sampling error as much as possible and suspend judgment and use inductive reasoning to construct a hypothesis.
  - all of these.

[◀ Add Question Here](#)

Question 29 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** In an experiment, the experimental group is

- Answer**
- not subjected to experimental error.
  - not exposed to experimental treatments.
  - maintained under strict laboratory conditions.
  - treated exactly the same as the control group, except for one independent variable.
  - statistically the most important part of the experiment.

[◀ Add Question Here](#)

Question 30 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** The control group in an experiment

- Answer**
- makes the experiment valid.
  - is an additional replicate for statistical purposes.
  - reduces the experimental errors.
  - minimizes experimental inaccuracy.
  - allows a standard of comparison for the experimental group.

[◀ Add Question Here](#)

Question 31 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** How many variable events is it best to test in one experiment?

- Answer**
- 1
  - 2
  - 3
  - 4
  - any number

[◀ Add Question Here](#)

Question 32 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** An experimenter does all but which of the following?

- Answer**
- revises a hypothesis as a result of data collected
  - manipulates dependent variables
  - reviews other research results obtained by other scientists
  - examines the effects of independent variables
  - draws conclusions based only on appropriate experimental data

[◀ Add Question Here](#)

Question 33 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question Exhibit 1-1**

A scientist randomly divided a group of 100 lab rats into two groups of 50. One group was fed regular rat chow while the other was fed the same amount of rat chow with added DDT. Both groups were housed in the same room with the same environmental conditions. At the end of the experiment, rats were weighed and the mean difference calculated.

Refer to Exhibit 1-1. What variable(s) was/were manipulated by the scientist?

- Answer**
- DDT
  - temperature
  - weight differences
  - both DDT and weight differences
  - both temperature and weight differences

[◀ Add Question Here](#)

Question 34 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question Exhibit 1-1**

A scientist randomly divided a group of 100 lab rats into two groups of 50. One group was fed regular rat chow while the other was fed the same amount of rat chow with added DDT. Both groups were housed in the same room with the same environmental conditions. At the end of the experiment, rats were weighed and the mean difference calculated.

Refer to Exhibit 1-1. What dependent variable was measured?

- Answer**
- DDT
  - temperature
  - weight
  - amount of food
  - day length

[◀ Add Question Here](#)

Question 35 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** Experiments showed that wing spots on butterflies were

- Answer**
- more likely to deter predatory birds than were clicking sounds.
  - less likely to deter predatory birds than were clicking sounds.
  - as effective at deterring predatory birds as clicking sounds.
  - completely ineffectual in deterring predatory birds.
  - associated with an increased likelihood of an attack by a predatory bird.

[◀ Add Question Here](#)

Question 36 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** In the Olestra potato chip experiment, the independent variable was the

- Answer**
- number of chips each subject consumed.
  - percent of people getting cramps.
  - larger or smaller dose of Olestra in the chips.
  - presence or absence of Olestra in the chips.
  - health of individuals participating in the experiment.

[◀ Add Question Here](#)

Question 37 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** Scientific experiments concluded that consumption of Olestra-laced potato chips results in

- Answer**
- stomach cramps.
  - no stomach cramps.
  - about the same likelihood of cramps as regular chips.
  - weight loss.
  - obesity.

[◀ Add Question Here](#)

Question 38 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** In order to reduce bias, scientists usually prefer experiments that lead to what kind of results?

- Answer**
- ambiguous
  - imprecise
  - quantitative
  - qualitative
  - subjective

[◀ Add Question Here](#)

Question 39 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** The difference between results obtained from a subset and results from the whole is defined as

- Answer**
- probability.
  - a trend.
  - a variable.
  - statistically significant.
  - ✓ sampling error.

◀ [Add Question Here](#)

Question 40 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** An experimenter surveyed one-half acre of a desert preserve and found three cactus wren nests. Assuming that the habitat is fairly uniform, how many nests would he expect to be in the entire 200-acre preserve?

- Answer**
- 6
  - 200
  - 600
  - ✓ 1200
  - 6000

◀ [Add Question Here](#)

Question 41 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** An experimental result that is statistically significant is

- Answer**
- likely to occur by chance alone.
  - ✓ unlikely to occur by chance alone.
  - scientifically significant or important.
  - the result of an experiment with only one variable.
  - influenced by sampling error.

◀ [Add Question Here](#)

Question 42 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** When a hypothesis has been repeatedly and rigorously tested and supported, it is called a

- Answer**
- model.
  - testable prediction.
  - scientific method.
  - ✓ scientific theory.
  - result.

◀ [Add Question Here](#)

Question 43 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question** Which statement could be considered a scientific theory?

- Answer**
- Beauty pageant contestants are becoming increasingly more beautiful.
  - Chemistry and physics are more exact sciences than biology.
  - ✓ Radioactive isotopes can be used as tracers because radioactive isotopes behave the same way chemically as other isotopes of the same element.
  - The growth of a plant is faster in a growth chamber than in a greenhouse.
  - Leaves bend toward the light because they know light is needed to grow.

◀ [Add Question Here](#)

Question 44 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question Selecting the Exception**

Four of the five answers listed below are necessary characteristics to the life of an individual. Select the exception.

- Answer**
- energy use
  - homeostasis
  - development
  - response to stimuli
  - ✓ diversity

◀ [Add Question Here](#)

Question 45 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question Selecting the Exception**

Four of the five answers listed below are names of kingdoms. Select the exception.

- Answer**
- Animalia
  - Protista
  - ✓ Eukarya
  - Fungi
  - Plantae

◀ [Add Question Here](#)

Question 46 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question Selecting the Exception**

Four of the five answers listed below are aspects of systematic study. Select the exception.

- Answer**
- observation
  - hypothesis
  - experimentation
  - ✓ philosophy

conclusion

[◀ Add Question Here](#)Question 47 **Multiple Choice** **0 points**[Modify](#) [Remove](#)**Question Selecting the Exception**

Four of the five answers listed below are terms associated with the systematic study. Select the exception.

**Answer** ✔ truth  
 theory  
 observation  
 experimentation  
 hypothesis

[◀ Add Question Here](#)Question 48 **Matching** **0 points**[Modify](#) [Remove](#)

**Question** Answer the question(s) by matching the statement to the most appropriate function, process, or trait listed below.

**Answer Match Question Items**

C. - A. A process found only in producers  
 E. - B. Most organisms exhibit this characteristic, which tends to buffer the effects of environmental change  
 A. - C. The capacity to acquire, store, and use energy  
 B. - D. Process in which one generation replaces another

**Answer Items**

A. metabolism  
 B. reproduction  
 C. photosynthesis  
 D. growth  
 E. homeostasis

[◀ Add Question Here](#)Question 49 **Matching** **0 points**[Modify](#) [Remove](#)

**Question** Answer the question(s) by matching the statement with one or more of the kingdoms listed below.

**Answer Match Question Items**

C. - A. Multicellular producers  
 A. - B. No nucleus  
 B. - C. Unicellular organisms of considerable internal complexity  
 E. - D. Multicellular consumers  
 A. - E. First living organisms  
 A. - F. Unicellular producers  
 A. - G. Unicellular decomposers  
 D. - H. Multicellular decomposers

**Answer Items**

A. Bacteria  
 B. Protista  
 C. Plantae  
 D. Fungi  
 E. Animalia

[◀ Add Question Here](#)Question 50 **Essay** **0 points**[Modify](#) [Remove](#)

**Question** What are some of the places where the natural and manmade worlds interface? What problems could this cause?

**Answer** A dam on a river is such an interface that can drastically alter the environment by creating lakes and can block migration of fish and other aquatic animals. Adding fertilizers and pesticides to lawns is another interface. Fertilizers can cause increased algal growth when the runoff migrates to streams. Pesticides may damage other nontarget organisms.

[◀ Add Question Here](#)Question 51 **Essay** **0 points**[Modify](#) [Remove](#)

**Question** Can a scientist prove the existence or nonexistence of God? Why or why not?

**Answer** Scientists can only test disprovable hypotheses in the natural world. By definition, God is supernatural.

[◀ Add Question Here](#)

OK