

Package Title: Test Bank
Course Title: ireland5
Chapter Number: 01

Question type: Multiple Choice

1) Which of the following is a characteristic of living things?

- a) High degree of organization.
- b) Presence of blood.
- c) Composed of chemicals.
- d) Part of the Animal kingdom.

Answer: a

Difficulty: Medium

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.1 List the characteristics of life.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

2) Which of the materials best represents the presence of life?

- a) Carbon
- b) Water
- c) DNA
- d) Oxygen

Answer: c

Difficulty: Medium

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.1 List the characteristics of life.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

3) Which of the following is the smallest unit of life?

- a) Organism
- b) Organ system
- c) Organ
- d) Cell

Answer: d

Difficulty: Easy

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.1 List the characteristics of life.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

4) Why are viruses considered not to be alive?

- a) They do not respond to stimuli.
- b) They cannot reproduce on their own.
- c) They do not contain protein.
- d) They are too small.

Answer: b

Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.1.1 List the characteristics of life.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

5) What is meant by the term homeostasis?

- a) It is the taxonomic term for human beings.
- b) It is a characteristic of living things that means they can reproduce the same organism.
- c) It means that humans are constantly changing.
- d) It is the ability of an organism to monitor conditions and maintain them.

Answer: d

Difficulty: Medium

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.2 Define homeostasis and relate it to the study of life.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

6) Which is the most common form of feedback control in humans?

- a) Control center feedback.
- b) Positive feedback.
- c) Negative feedback.
- d) Effector feedback.

Answer: c

Difficulty: Medium

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.4 Contrast negative and positive feedback systems.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

7) In a negative feedback system, the response of the effector:

- a) enhances the original stimulus.
- b) eliminates the original stimulus.
- c) reverses the original stimulus.
- d) does not change the original stimulus.

Answer: b

Difficulty: Medium

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.4 Contrast negative and positive feedback systems.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

8) Which of the following is an example of homeostatic imbalance?

- a) Diabetic taking an insulin injection
- b) Sleeping
- c) Eating a banana as a source of potassium
- d) Feeling tired and hungry

Answer: d

Difficulty: Medium

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.3 Describe how homeostasis plays a role in everyday activities.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

9) Which of the following is an example of an atom?

- a) Carbon
- b) Carbohydrate
- c) Glucose
- d) ATP

Answer: a

Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.1 Explain how atoms, and therefore the entire field of chemistry, relate to the study of life.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

10) Which of the following is an example of an organ system?

- a) Stomach
- b) Connective
- c) -Human being
- d) Digestive

Answer: d

Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

11) Which of the following is a group of different tissues?

- a) Chemicals
- b) Cell
- c) Organ
- d) Organism

Answer: c

Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

12) Think about this analogy: If your classroom represents a population, then what does each individual student represent?

- a) Tissue
- b) Organism
- c) Community
- d) Cell

Answer: b

Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

13) Which of the following is a type of tissue?

- a) Connective
- b) Collagen fibers
- c) Respiratory
- d) Skeletal

Answer: a

Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

14) Which of the following is a Domain?

- a) Animalia
- b) Eukarya
- c) Plantae
- d) Fungi

Answer: b

Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.3 Relate taxonomy to human biology.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

15) Put these in the correct order from the broadest category to narrowest category: 1. class 2. family 3. genus 4. order 5. phylum.

- a) 2, 1, 3, 4, 5
- b) 1, 2, 3, 4, 5
- c) 5, 3, 4, 1, 2

d) 5, 1, 4, 2, 3

Answer: d

Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.3 Relate taxonomy to human biology.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

16) In Taxonomy, the “*homo-*” part of *Homo sapien* is the _____. _____.

- a) Kingdom
- b) Genus
- c) Class
- d) Species

Answer: b

Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.3 Relate taxonomy to human biology.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

17) Which of the following is one of the five basic processes that human physiology hinges on?

- a) protein function
- b) atom function
- c) taxonomy function
- d) species function

Answer: a

Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.4 List the five processes that are most helpful in studying human physiology.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

18) What does a scientist do after making observations?

- a) Formulate a hypothesis
- b) Conduct an experiment
- c) Think of questions

d) Draw a conclusion

Answer: a

Difficulty: Easy

Learning Objective 1: LO 1.3 Explain the scientific method.

Learning Objective 2: LO1.3.1 List the steps in the scientific method in order.

Section Reference 1: Section 1.3 Scientists Approach Questions Using the Scientific Method

19) Formulating a hypothesis is an example of:

- a) inductive reasoning.
- b) deductive reasoning.
- c) experimenting.
- d) drawing a conclusion.

Answer: a

Difficulty: Medium

Learning Objective 1: LO 1.3 Explain the scientific method.

Learning Objective 2: LO 1.3.2 Define hypothesis and theory.

Section Reference 1: Section 1.3 Scientists Approach Questions Using the Scientific Method

20) Making a prediction based on a testable hypothesis is an example of:

- a) inductive reasoning.
- b) deductive reasoning.
- c) experimenting.
- d) collecting data.

Answer: b

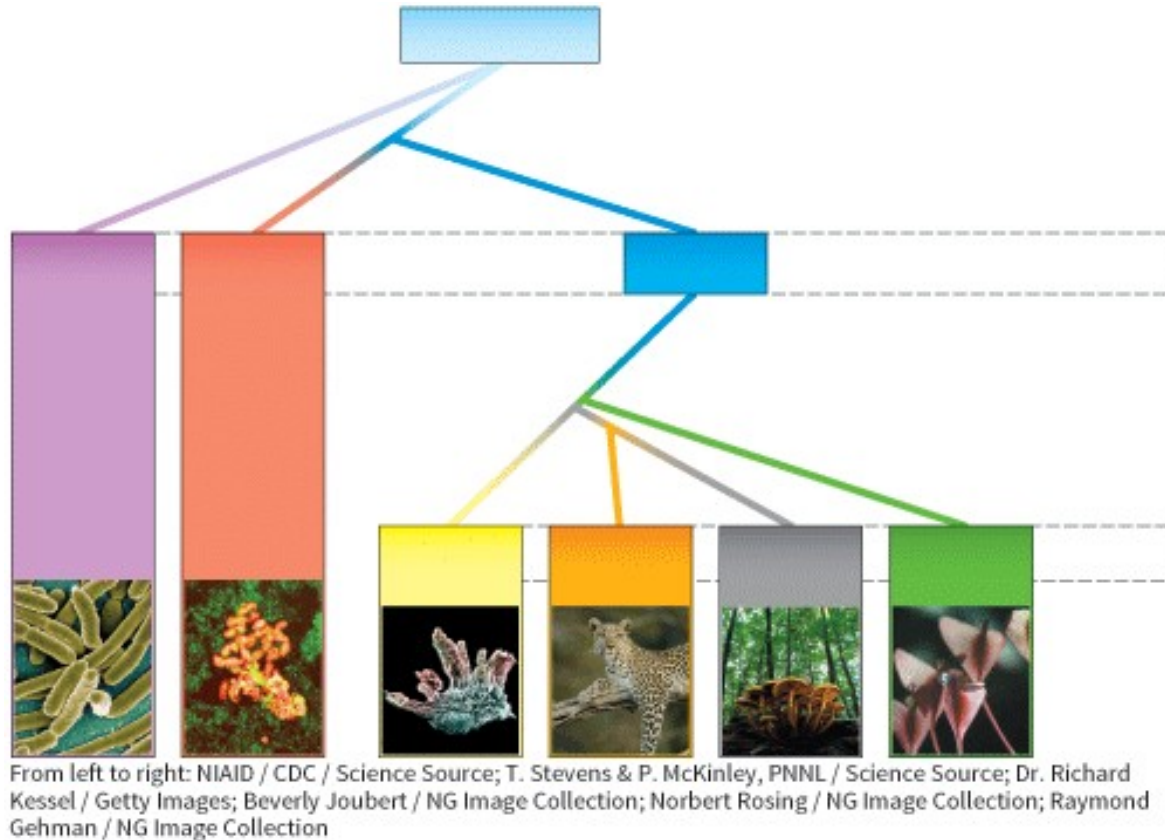
Difficulty: Medium

Learning Objective 1: LO 1.3 Explain the scientific method.

Learning Objective 2: LO LO 1.3.2 Define hypothesis and theory.

Section Reference 1: Section 1.3 Scientists Approach Questions Using the Scientific Method'

21) Humans are classified in which Domain?



- a) A
- b) B
- c) C
- d) D

Answer: d

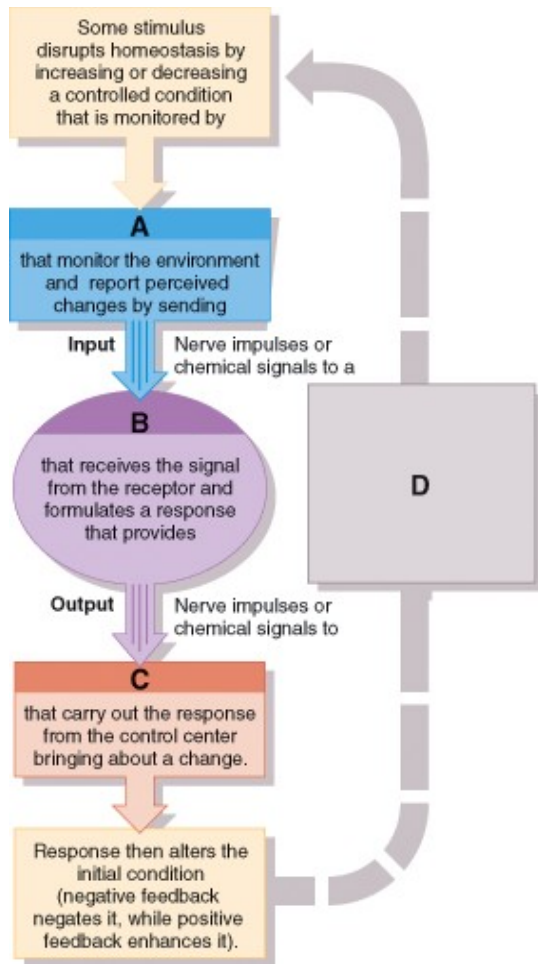
Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.3 Relate taxonomy to human biology

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

22) If the diagram represented a feedback loop for thermoregulation which part would represent the brain?



- a) A
- b) B
- c) C
- d) D

Answer: b

Difficulty: Medium

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.4 Contrast negative and positive feedback systems.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

23) If the diagram represented a feedback loop for thermoregulation, the skin is represented by the effectors and _____?

- a) A
- b) B
- c) C
- d) D

Answer: a

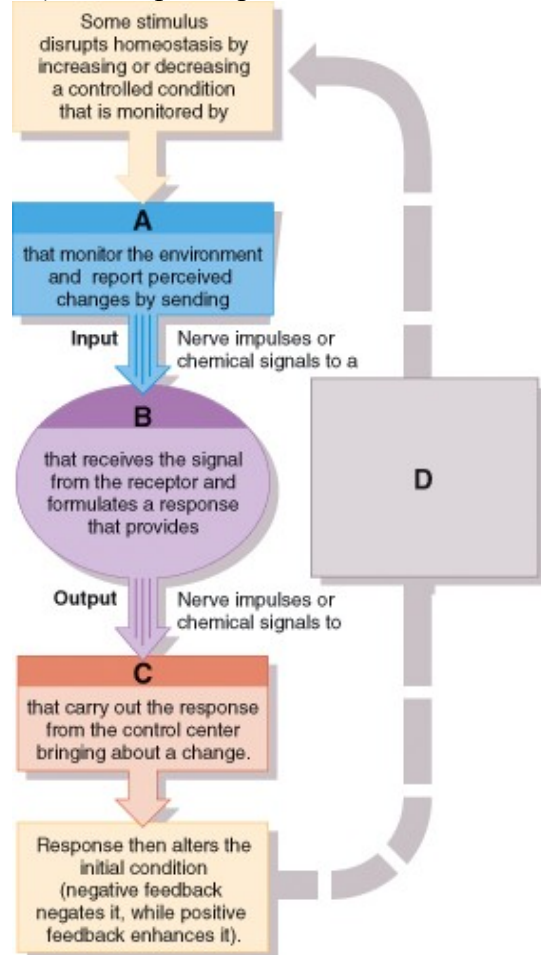
Difficulty: Medium

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO LO 1.1.4 Contrast negative and positive feedback systems.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

24) Which part represents the muscles and blood vessels?



- a) A
- b) B
- c) C
- d) D

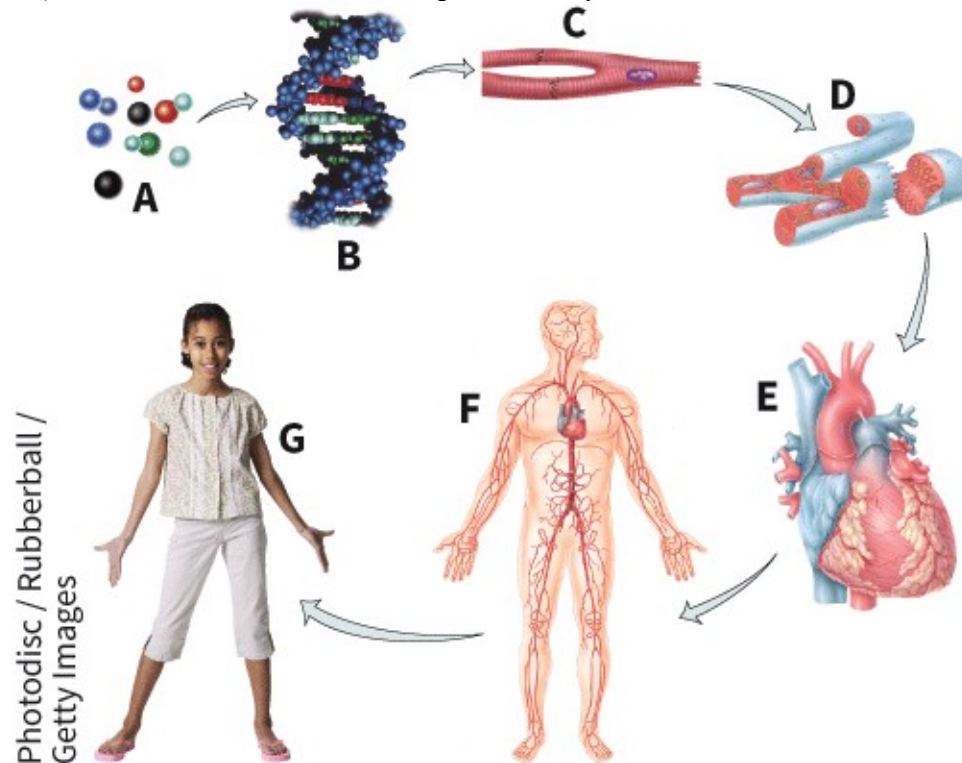
Answer: c

Difficulty: Medium

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO LO 1.1.4 Contrast negative and positive feedback systems.
Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

25) Which hierarchical level is represented by label A?



- a) Cell
- b) Molecule
- c) Atom
- d) Tissue

Answer: c

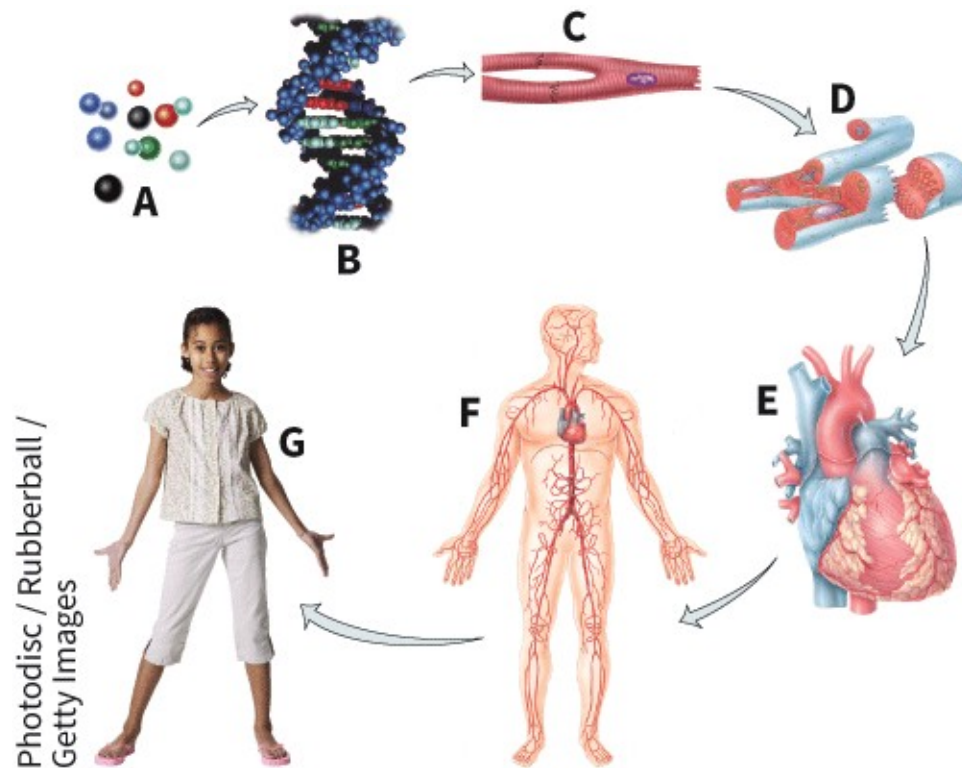
Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.1 Explain how atoms, and therefore the entire field of chemistry, relate to the study of life.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

26) Which hierarchical level is represented by label D?



- a) Atom
- b) Cell
- c) Organ
- d) Tissue

Answer: d

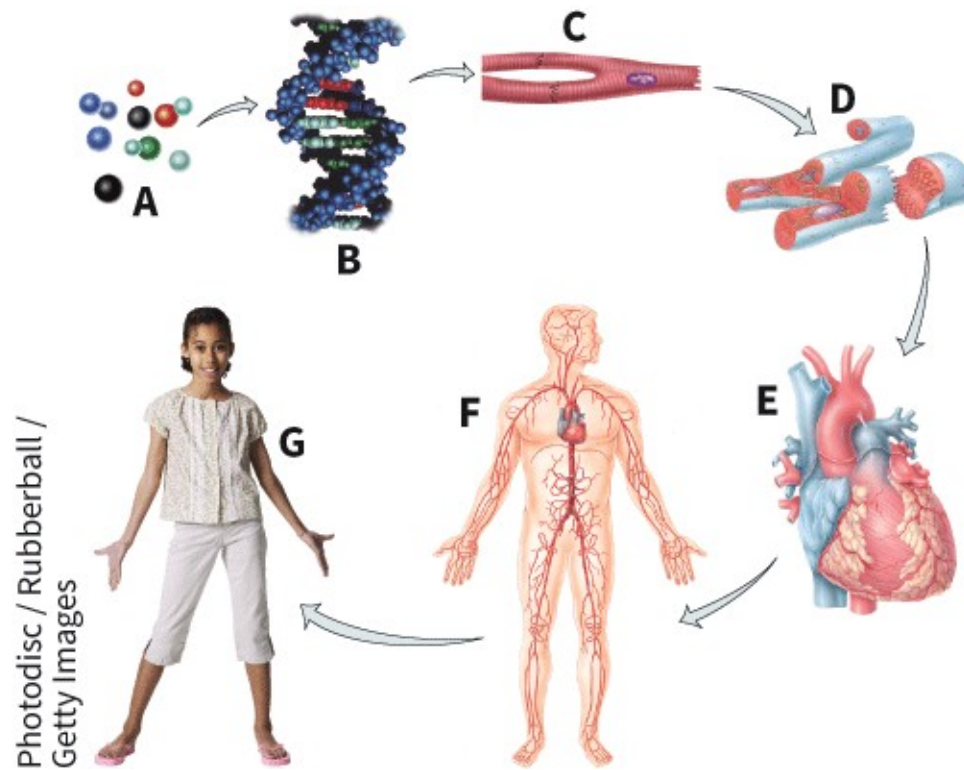
Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.1 Explain how atoms, and therefore the entire field of chemistry, relate to the study of life.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

27) Which of the following would be placed at the same hierarchical level as the heart (labeled E)?



- a) Carbon atom
- b) Stomach
- c) Muscle cell
- d) Digestive system

Answer: b

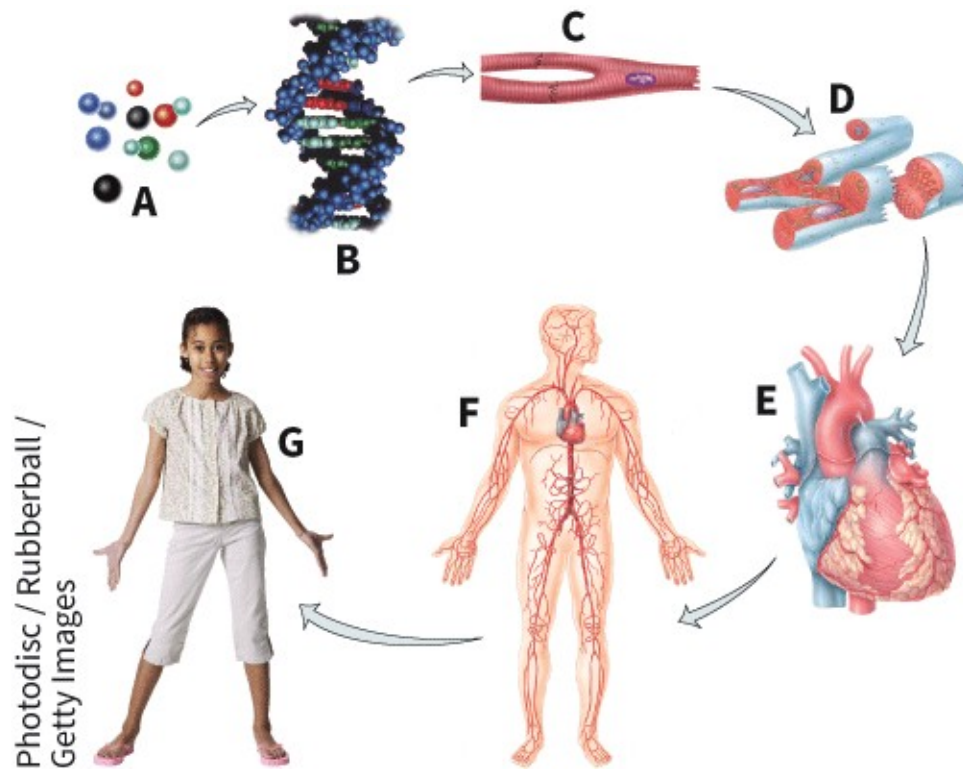
Difficulty: Hard

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

28) Which hierarchical level is represented by label G?



- a) Atom
- b) Molecule
- c) Organ system
- d) Organism

Answer: d

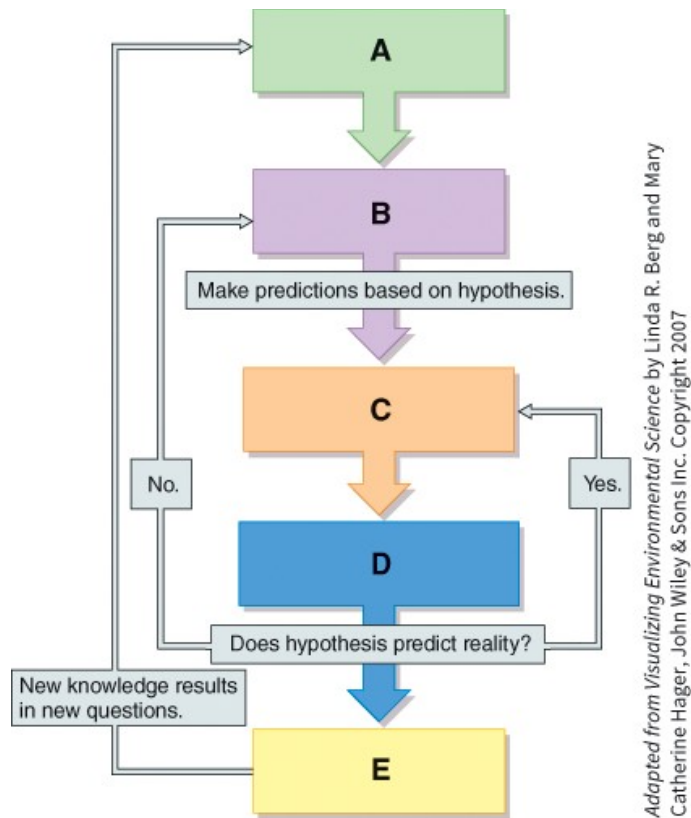
Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

29) Which step in the scientific method is represented by label A?



- a) Conclusion
- b) Collect data
- c) Hypothesis
- d) Observation

Answer: d

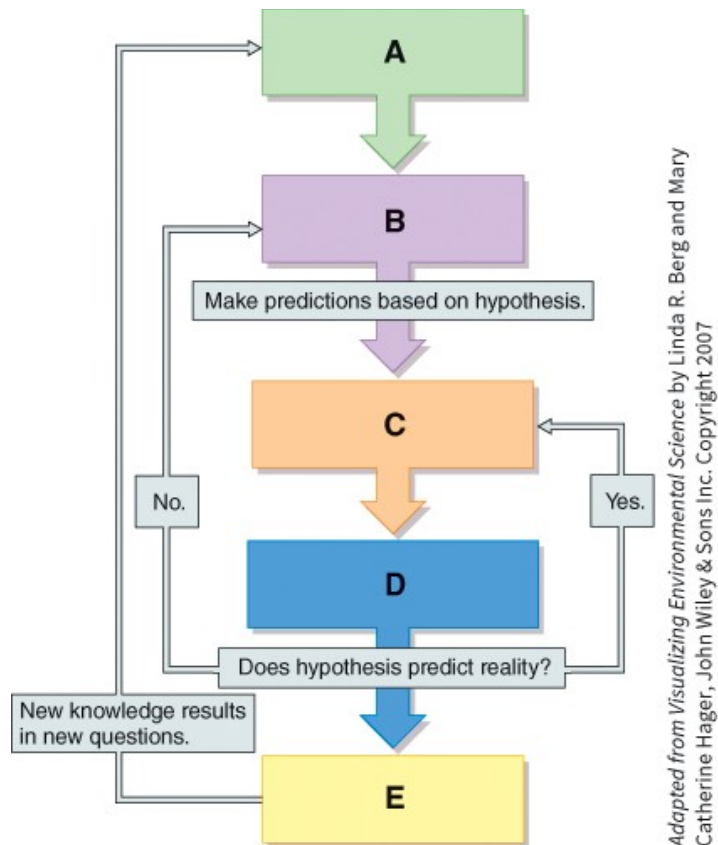
Difficulty: Easy

Learning Objective 1: LO 1.3 Explain the scientific method.

Learning Objective 2: LO 1.3.1 List the steps in the scientific method in order.

Section Reference 1: Section 1.3 Scientists Approach Questions Using the Scientific Method)

30) Which step in the scientific method is represented by label D?



- a) Collect and analyze results
- b) Conclusion
- c) Design and conduct an experiment
- d) None of these are correct

Answer: a

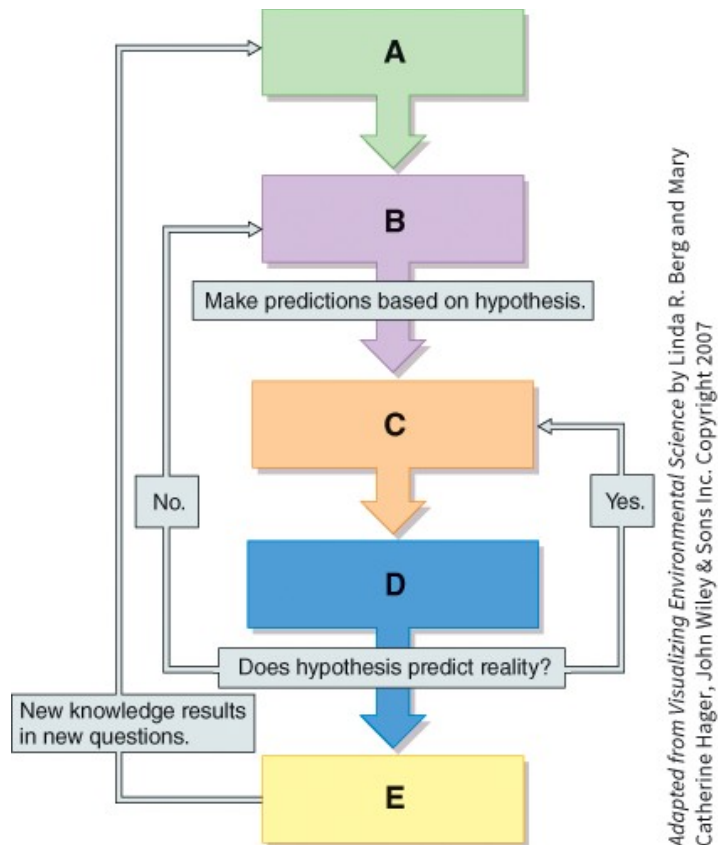
Difficulty: Easy

Learning Objective 1: LO 1.3 Explain the scientific method.

Learning Objective 2: LO LO 1.3.1 List the steps in the scientific method in order.

Section Reference 1: Section 1.3 Scientists Approach Questions Using the Scientific Method

31) What do steps D and then B suggest about the experiment's results and its hypothesis?



- a) The hypothesis was supported.
- b) The hypothesis was not supported.
- c) The hypothesis was supported but more experiments need to be done to prove it true.
- d) These results have no bearing on the hypothesis.

Answer: b

Difficulty: Hard

Learning Objective 1: LO 1.3 Explain the scientific method.

Learning Objective 2: LO LO 1.3.1 List the steps in the scientific method in order.

Section Reference 1: Section 1.3 Scientists Approach Questions Using the Scientific Method

32) Which level in the hierarchy of life represents interacting communities united in a geographic area?

- a) Biosphere
- b) Individual
- c) Population
- d) Ecosystem

Answer: d

Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

Question type: True/False

33) Plants synthesizing compounds by means of solar power is an example of the characteristic of requiring energy.

Answer: True

Difficulty: Easy

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.1 List the characteristics of life.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

34) Carbohydrates are not found in any living things, whereas lipids are found in all living things.

Answer: False

Difficulty: Easy

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.1 List the characteristics of life.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

35) Negative feedback systems amplify the changes that are being detected by the receptor.

Answer: False

Difficulty: Easy

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.4 Contrast negative and positive feedback systems.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

36) Regulating electrolyte balance during a run is an example of homeostasis.

Answer: True

Difficulty: Easy

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.2 Define homeostasis and relate it to the study of life.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

37) Organizationally, a biome includes all of the living organisms and the non-living things in a given area.

Answer: True

Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

38) A scientist examining a liver sample under a microscope will be making observations at the tissue and cellular level of biological organization.

Answer: True

Difficulty: Hard

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

39) All bacteria are classified in the same domain and kingdom.

Answer: False

Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.3 Relate taxonomy to human biology.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

40) Humans and dogs both belong to the kingdom Animalia.

Answer: True

Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO LO 1.2.3 Relate taxonomy to human biology.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

41) A theory, in the fields of science and law, means a good guess.

Answer: False

Difficulty: Medium

Learning Objective 1: LO 1.3 Explain the scientific method.

Learning Objective 2: LO 1.3.2 Define hypothesis and theory.

Section Reference 1: Section 1.3 Scientists Approach Questions Using the Scientific Method

42) Science seeks to answer questions about important human affairs like whether it is right or wrong to use natural resources.

Answer: False

Difficulty: Medium

Learning Objective 1: LO 1.4 Discuss why it is important to have a basic knowledge of science.

Learning Objective 2: LO 1.4.2 Briefly describe why a basic knowledge of science is essential to being a productive citizen.

Section Reference 1: Section 1.4 Scientific Findings Often Lead to Ethical Dilemmas

Question type: Text Entry

43) A(n) _____ is a structure composed of more than one tissue.

Answer:

Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

Solution: organ

44) The ability to maintain a stable internal environment is called _____.

Answer:

Difficulty: Easy

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.2 Define homeostasis and relate it to the study of life.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

Solution: homeostasis

45) The _____ registers the signal coming from the receptor and formulates a response.

Answer:

Difficulty: Medium

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.4 Contrast negative and positive feedback systems.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

Solution: control center

46) A group of ants in an ant farm would be considered a _____.

Answer:

Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

Solution: population

47) A(n) _____ is the smallest unit of an element that has the properties of the element.

Answer:

Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.1 Explain how atoms, and therefore the entire field of chemistry, relate to the study of life.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

Solution: atom

48) Organizationally, the planet Earth is a _____.

Answer:

Difficulty: Medium

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.2 Describe the organizational pattern of all biology and the logic of taxonomy.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

Solution: biosphere

49) The branch of science dealing with the classification of organisms into groups with similar characteristics is called _____.

Answer:

Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.3 Relate taxonomy to human biology.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

Solution: taxonomy

50) Fill in the missing category: Domain, kingdom, phylum, class, _____, family, genus, species.

Answer:

Difficulty: Easy

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.3 Relate taxonomy to human biology.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

Solution: order

51) A(n) _____ is a factor that can be changed in an experiment to test whether and how it affects the outcome.

Answer:

Difficulty: Easy

Learning Objective 1: LO 1.3 Explain the scientific method.

Learning Objective 2: LO 1.3.1 List the steps in the scientific method in order.

Section Reference 1: Section 1.3 Scientists Approach Questions Using the Scientific Method

Solution: variable

52) Humans display _____ behavior by accepting responsibility for other individuals within the population.

Answer: altruistic

Difficulty: Easy

Learning Objective 1: LO 1.4 Discuss why it is important to have a basic knowledge of science.

Learning Objective 2: LO 1.4.1 Define altruistic behavior.

Section Reference 1: Section 1.4 Scientific Findings Often Lead to Ethical Dilemmas

Question Type: Essay

53) Describe how a feedback system maintains homeostasis.

Answer:

Difficulty: Hard

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.3 Describe how homeostasis plays a role in everyday activities.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

Solution: A feedback system requires three components: 1. a stimulus **receptor** that monitors the environment and reports any changes, 2. a **control center** that registers the signal from the stimulus receptor and formulates a response, and 3. an **effector** or effectors to carry out that response from the control center bringing about a change. The response brings the controlled condition back to normal.

54) How are all living organisms similar?

Answer:

Difficulty: Hard

Learning Objective 1: LO 1.1 Summarize the characteristics of life.

Learning Objective 2: LO 1.1.1 List the characteristics of life.

Section Reference 1: Section 1.1 Living Organisms Display Nine Specific Characteristics

Solution: Organisms respond to external stimuli, alter the environment, sense the environment, adapt to the environment, use energy, reproduce, contain materials only found in living organisms, maintain homeostasis and are highly organized.

55) How are living organisms categorized?

Answer:

Difficulty: Hard

Learning Objective 1: LO 1.2 Explain how life is organized.

Learning Objective 2: LO 1.2.3 Relate taxonomy to human biology.

Section Reference 1: Section 1.2 Human Biology is Structured and Logical

Solution: Organisms are found in one of three domains—the Eubacteria, Archaeobacteria or Eukarya. Within the three domains are six kingdoms, four within the Eukarya and one kingdom in each of the other two. Because living organisms appear in a wide variety of forms, we can organize organisms into groups based on similarity of characteristics.

Taxonomy is the scheme that allows us to place individuals into broad groups down to more closely related individuals. This organizational system uses the levels domains, kingdoms, phylum, class, order, family, genus, and species.

56) Design an experiment to test the hypothesis that Drug Y lowers cholesterol in humans. Include all the steps in the scientific method.

Answer:

Difficulty: Hard

Learning Objective 1: LO 1.3 Explain the scientific method.

Learning Objective 2: LO 1.3.1 List the steps in the scientific method in order.

Section Reference 1: Section 1.3 Scientists Approach Questions Using the Scientific Method

Solution: Answers will vary. Observation: After administering Drug Y, cholesterol levels went down in human subjects. Hypothesis: Drug Y lowers cholesterol in humans. If blood cholesterol levels are measured after Drug Y is administered to human subjects, then blood cholesterol levels would be lower than before administration of Drug Y.

Experiment: Take a large number of human subjects and divide them into two groups.

One group is the Experimental group, and the other is the Control group. Measure initial cholesterol levels in both groups. Administer Drug Y to subjects in the Experimental group only. Measure cholesterol levels again in both groups. Data: Collect data from both groups.

Analysis: See if data supports hypothesis. Conclusion: Data either supports or fails to support the hypothesis. Repeat experiment with appropriate modifications.