

3-2 Levels of Organization

Modified True/False

Indicate whether the statement is true or false. If false, change the identified word or phrase to make the statement true.

____ 1. Unicellular organisms do respond to their environment. _____

____ 2. A unicellular organism called a prokaryote does not have a membrane-bound nucleus.

____ 3. Like stem cells in animals, plants have unspecialized cells called meristems.

____ 4. The three main types of plant tissue are dermal, vascular and epithelial tissue.

____ 5. A plant leaf is an example of a tissue. _____

____ 6. The process by which cells become different types of cells is called cell metamorphosis.

Multiple Choice

Identify the choice that best completes the statement or answers the question. Write the letter of your choice on the blank line.

____ 1. Which of the following functions can a unicellular organism perform?

a. eat

c. reproduce

- b. eliminate waste
- d. all of the above

____ 2. What are the differences between a prokaryote and a eukaryote?

- a. The prokaryote does not have a membrane bound nucleus, but the eukaryote does.
- b. The prokaryote has more cell structures than the eukaryote.
- c. The prokaryote is larger.
- d. The eukaryote has several cells.

____ 3. What is the process called by which cells coming from the same cell become different types of cells?

- a. cell migration
- c. cell differentiation
- b. cell mutation
- d. cell alteration

____ 4. What is unique about plant meristematic cells?

- a. Meristems can produce many different types of cells.
- b. Meristems make food.
- c. Meristems transport materials.
- d. Meristems store food.

____ 5. A large animal, such as a lion is made of _____.

- a. one large cell
- b. ten or fewer cells

- c. trillions of cells
- d. No one can know the correct answer without counting the actual cells in the animal

____ 6. Similar types of cells can be grouped together to carry out specific tasks. What are these groups of cells called?

- a. tissues
- b. organs
- c. organ systems
- d. organisms

____ 7. What are the four major types of tissue found in most animals?

- a. muscle, vascular, nervous, and epithelial
- b. muscle, connective, nervous, and dermal
- c. muscle, connective, nervous, and epithelial
- d. muscle, vascular, ground, dermal

____ 8. What are the three major types of tissue found in plants?

- a. vascular, dermal, ground
- b. vascular, dermal, connective
- c. connective, dermal, ground
- d. connective, epithelial, ground

____ 9. In which type of plant tissue does photosynthesis take place?

- a. dermal
- c. vascular

b. nervous

d. ground

____ 10. What does muscle tissue do?

- a. carries messages to and from the brain
- b. provides structure and support
- c. forms the protective outer layer of skin
- d. causes movement

____ 11. What does nervous tissue do?

- a. provides structure and support
- b. forms the protective outer layer of skin
- c. carries messages to and from the brain
- d. causes movement

____ 12. What is the bodily purpose of epithelial tissue?

- a. transports water and nutrients
- b. carries messages to and from the brain
- c. provides structure and support
- d. forms the protective outer layer of skin

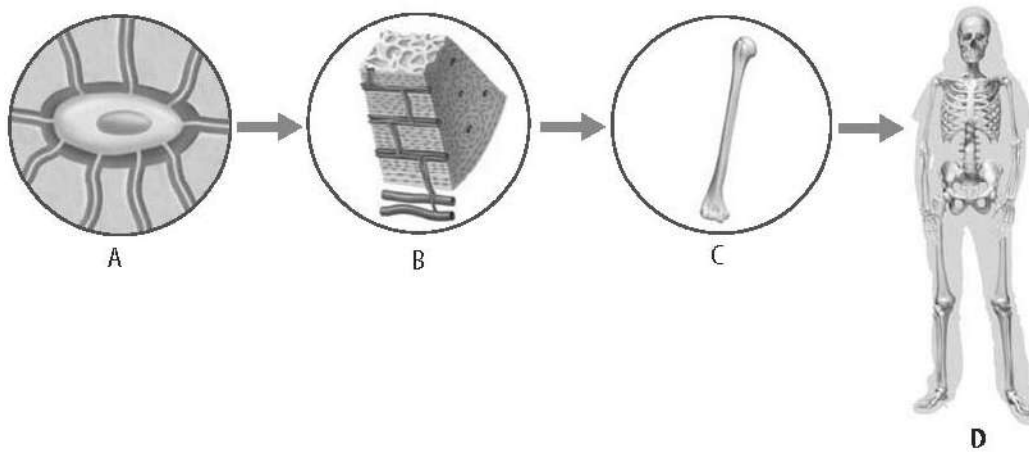
____ 13. Connective tissue serves which purpose in a multicellular organism?

- a. transports water and nutrients
- b. provides structure and support
- c. carries messages to and from the brain
- d. forms the protective outer layer of skin

____ 14. Choose the type of tissue that causes movement in most animals.

- a. muscle
- b. connective
- c. nervous
- d. epithelial

Use the diagram to answer the following questions.



____ 15. Which picture shows a cell?

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

____ 16. Which picture shows an organ system?

- | | |
|------|------|
| a. A | c. C |
| b. B | d. D |

____ 17. Which picture shows tissue?

- | | |
|------|------|
| a. A | c. C |
| b. B | d. D |

____ 18. Which picture shows an organ?

- | | |
|------|------|
| a. A | c. C |
| b. B | d. D |

Completion

Complete each statement.

1. The joining of an egg and a sperm is called _____.
2. _____ is an example of a unicellular eukaryotic organism.
3. _____ is an example of a unicellular prokaryotic organism.

4. _____ is an example of a multicellular eukaryotic organism.
5. _____ are groups of different tissues working together to perform a particular job.
6. When the fertilized egg divides into other cells, they all have identical chromosomes. The different types of cells that form use different parts of the instructions in the chromosomes. This is the process of cell _____.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2

6. ANS: F, cell differentiation

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.1 | 5.3.8.A.2

MULTIPLE CHOICE

1. ANS: D

Unicellular organisms can also grow and respond to their environment.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-3 STA: 5.3.8.A.1 | 5.3.8.A.2

2. ANS: A

Both prokaryotes and eukaryotes are unicellular. Eukaryotes have a membrane bound nucleus and other specialized organelles.

PTS: 1 DIF: Bloom's Level 2 | DOK 2-MOD

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-3 STA: 5.3.8.A.1 | 5.3.6.A.2

3. ANS: C

The process by which cells become different types of cells is called cell differentiation.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-3 STA: 5.3.8.A.1 | 5.3.8.A.2

4. ANS: A

Cell division in meristems produces different types of plant cells with specialized functions.

PTS: 1 DIF: Bloom's Level 2 | DOK 2-MOD

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.1 | 5.3.8.A.2

5. ANS: C

Large animals are made up of trillions of cells working together.

PTS: 1 DIF: Bloom's Level 2 | DOK 2-MOD

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-3 STA: 5.3.6.A.2 | 5.3.8.A.2

6. ANS: A

Tissues are groups of similar types of cells that work together to carry out specific tasks.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2

7. ANS: C

Most animals have four main types of tissue—muscle, connective, nervous and epithelial. Plants have three main types—derma, vascular, and ground tissue.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2

8. ANS: A

The three main types of plant tissue are dermal, vascular, and ground tissue.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2

9. ANS: D

Ground tissue provides storage and support and is where photosynthesis takes place.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2 | 5.2.8.B.2

10. ANS: D

Muscle tissue causes movement.

PTS: 1 DIF: Bloom's Level 2 | DOK 2-MOD

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2 | 5.2.8.B.2

11. ANS: C

Nervous tissue carries messages.

PTS: 1 DIF: Bloom's Level 2 | DOK 2-MOD

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2 | 5.2.8.B.2

12. ANS: D

Epithelial tissue forms the protective outer layer of the skin.

PTS: 1 DIF: Bloom's Level 2 | DOK 2-MOD

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2 | 5.2.8.B.2

13. ANS: B

Connective tissue provides structure and support.

PTS: 1 DIF: Bloom's Level 2 | DOK 2-MOD

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2

14. ANS: A

Muscle tissue causes movement.

PTS: 1 DIF: Bloom's Level 2 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2

15. ANS: A

Cells make up tissue.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2

16. ANS: D

Organs make up organ systems.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2

17. ANS: B

Tissue is made of cells and makes up organs.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2

18. ANS: C

Organs are made of tissues and make up organ systems.

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.2

COMPLETION

1. ANS: fertilization

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.1 | 5.3.8.A.2

2. ANS: Amoeba, algae

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.1 | 5.3.8.A.2 | 5.3.8.B.1

3. ANS: bacteria

PTS: 1 DIF: Bloom's Level 2 | DOK 2-MOD

REF: To review this topic refer to From a Cell to an Organism: Lesson 1

OBJ: 3-1 STA: 5.1.8.B.2

4. ANS: Human etc.

PTS: 1

5. ANS: Organs

PTS: 1 DIF: Bloom's Level 1 | DOK 1-LOW

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.1 | 5.3.8.A.2

6. ANS: differentiation

PTS: 1 DIF: Bloom's Level 2 | DOK 2-MOD

REF: To review this topic refer to From a Cell to an Organism: Lesson 2

OBJ: 3-4 STA: 5.3.8.A.1 | 5.3.8.A.2