

**Key Concept Builder** 

**LESSON 2**

## Levels of Organization

**Key Concept** How do unicellular and multicellular organisms differ?

**Directions:** In the space at the left, write U next to each statement that correctly identifies unicellular organisms. Write M next to each statement that identifies multicellular organisms. Write B next to each statement that applies to both organisms.

- \_\_\_\_\_ 1. These organisms consist of cells.
- \_\_\_\_\_ 2. Each cell must carry out all life processes.
- \_\_\_\_\_ 3. Cells are specialized and perform specific functions.
- \_\_\_\_\_ 4. These organisms can be prokaryotes or eukaryotes.
- \_\_\_\_\_ 5. These organisms are always eukaryotes.
- \_\_\_\_\_ 6. Cells in these organisms differentiate.
- \_\_\_\_\_ 7. These organisms have stem cells.
- \_\_\_\_\_ 8. These organisms have tissues.

**Directions:** Respond to each statement on the lines provided.

**9. Compare** a prokaryotic cell and a eukaryotic cell.

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**10.** Use your responses above to summarize the main differences between a unicellular organism and a multicellular organism.

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## Levels of Organization

**Key Concept** How does cellular differentiation lead to the organization within a multicellular organism?

**Directions:** Use the terms from the word bank to order the levels of organization from smallest to largest. Then write a definition of each term on the lines provided.

cell          organ          organism          organ system          tissue

1. \_\_\_\_\_

Definition: \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

Definition: \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

Definition: \_\_\_\_\_

\_\_\_\_\_

4. \_\_\_\_\_

Definition: \_\_\_\_\_

\_\_\_\_\_

5. \_\_\_\_\_

Definition: \_\_\_\_\_

\_\_\_\_\_

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## Levels of Organization

**Key Concept** How does cellular differentiation lead to the organization within a multicellular organism?

**Directions:** Answer each question or respond to each statement on the lines provided.

1. What is a stem cell?

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2. What is the process by which cells become different types of cells?

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3. Why are stem cells in an embryo important?

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4. Why are adult stem cells important?

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5. Give examples of where adult stem cells are located in people.

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6. What are unspecialized cells in plants called? Where are they located?

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7. **Compare** the chromosomes in a skin cell to a muscle cell in the same organism. Include an explanation of how the two types of cells can be different.

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**LESSON 2**

## ***Levels of Organization***

**Key Concept** How does cellular differentiation lead to the organization within a multicellular organism?

**Directions:** Answer each question or respond to each statement on the lines provided.

- 1. List** the four main types of tissues in humans. Then explain why the stomach has all four types of tissues.

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- 2. List** the three main types of tissues in plants. Then describe the function of each type of tissue.

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- 3.** What do the stomach and a leaf have in common?

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- 4.** What do the human circulatory system and a plant's shoot system have in common?

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- 5.** Why do multicellular organisms have more than one organ system?

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