

# LEP Science

April 7

**Objective: I can explain how organisms have organization**



# Let's get started

Copy the following in your notebook or on a piece of paper

The Cell Theory:

1. All living things are made of cells
2. The cell is the basic unit of structure in living organisms
3. All cells come from existing cells

Life starts with a cell. Cells join together to make tissues. Tissues that work together make organs. Organs that work together to perform a similar function make up organ systems. Organ systems in one being make an organism.

A living thing is called an organism.

# Lesson

Copy the following table into your notebook or on a sheet of paper.

<b>Level of Organization</b>	<b>Definition</b>	<b>Example</b>
Cell		
Tissue		
Organ		
Organ system		
Organism		
Population		
Community		
Ecosystem		
Biome		
Biosphere		

# Lesson:

Watch the video and complete your notes chart.



# How did you do?

Level of Organization	Definition	Example
Cell	Single particle of life	Prokaryote/Eukaryote/or others
Tissue	Cells that perform a similar function	Muscle, skin, ...
Organ	Tissues that perform a specific function	Stomach, heart
Organ system	Organs that collectively perform a function	Digestive system
Organism	Organ systems working together for life	Human, platypus
Population	Group of same organisms together	Group of humans or platypi
Community	Many populations together in an area	Only living things count here
Ecosystem	All <u>Biotic</u> and <u>Abiotic</u> things together	Park, school yard
Biome	Ecosystems at same or similar environmental conditions	Desert, rainforest, etc
Biosphere	All Biomes together	Earth

# Practice what you have learned

Life is organized into many levels. The simplest level at which life exists is the cell. Life is also organized on nonliving levels (below the cell) and levels above the organism.

DIRECTIONS: Using your notes, arrange the following levels of organization in order from simplest to most complex. Write this on your paper.

## WORD BANK

- \*Tissue
- \*Organism
- \*Cell
- \*Organ
- \*Organ System

# Match each word to its definition

1. Organ
  2. Cell
  3. Organ System
  4. Population
  5. Tissue
  6. Organism
  7. Ecosystem
  8. Community
  9. Biome
  10. Biosphere
- A. Basic unit of structure and function in an organism
  - B. Group of similar cells that work together to perform a similar task
  - C. A living thing that may be unicellular or multicellular
  - D. Group of similar tissues working together like the heart or lungs
  - E. Group of similar organisms hanging out together
  - F. All biomes together
  - G. All biotic and abiotic factors together
  - H. Different organisms together in an area
  - I. A bunch of ecosystems in similar environmental conditions
  - J. Group of organs working together to perform a function

# Answers to Practice

LEAST COMPLEX

Cell

Tissue

Organ

Organ system

Organism

MOST COMPLEX

1. D

2. A

3. J

4. E

5. B

6. C

7. G

8. H

9. I

10. F



# More practice Answer on your paper

1. Aurora is studying the levels of structural organization of an animal's body. Which level would describe a dog's eye?
  - A. organ
  - B. tissue
  - C. organism
  - D. organ system
2. Arteries are blood vessels that transport oxygen-rich blood and nutrients throughout the body. What level of organization is an artery?
  - A. cell
  - B. tissue
  - C. organ
  - D. organ system

3. A student is studying the levels of organization in living things and creates a table to give examples of the different levels.

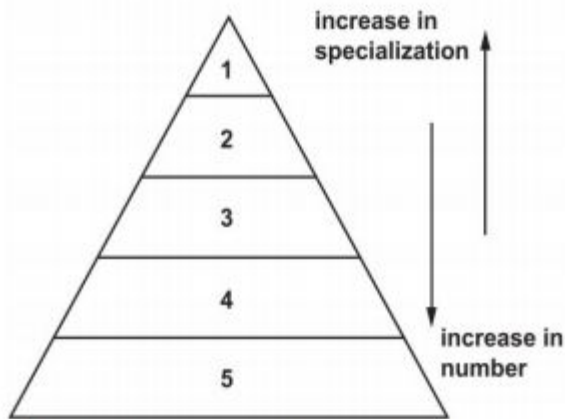
Level of organization	Example
cell	red blood cell
tissue	
organ	
organ system	digestive system
organism	
ecosystem	wetland

Which of these should the student write as an example of the organism level of organization?

- A. human
- B. stomach
- C. connective tissue
- D. food, water, and air

4. Charissia drew a diagram to describe the levels of structural organization of an animal's body. She will list the cell at the bottom of the pyramid as both the least specialized and the most numerous.

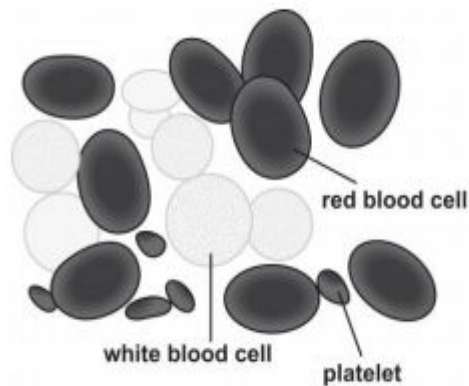
#### Levels of Organization of an Animal's Body



Which of these should she list in level 3 of the diagram?

- A. organ
- B. tissue
- C. organism
- D. organ system

7. The picture shows a microscopic view of blood. Blood is made of different types of cells, each of which play a different role while working together.



Blood is an example of which level of organization?

- A. organ
- B. tissue
- C. organism
- D. organ system

# Answers to more practice questions

1. A
2. C
3. A
4. A
5. B