

Levels of Organization Practice

An anatomist is a person who studies the structure of a living thing – how all the little things are organized into bigger things. The smallest living structures are cells, but there are things even smaller than a cell (such as atoms and molecules). Figure 1 shows the levels of organization used by anatomists. Table 1 names examples of each of the levels of organization shown in Figure 1.

Figure 1: Levels of Organization in the Human Body

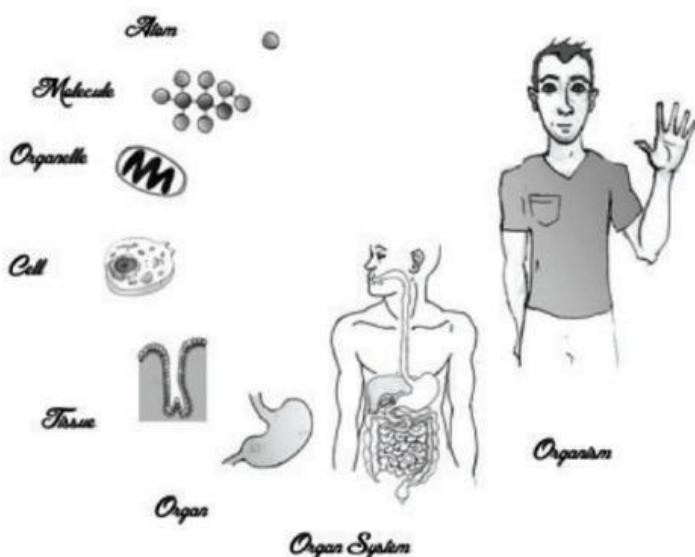


Table 1

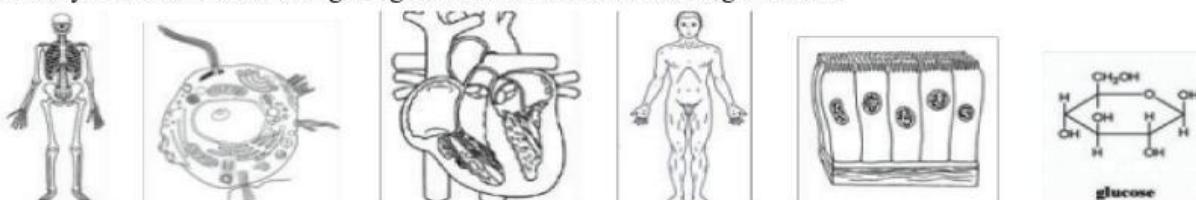
Level of Organization	Example
Atom	Carbon
Molecule	Carbon dioxide
Cell	Stomach cell
Tissue	Epithelial tissue
Organ	Stomach
Organ system	Digestive System
Organism	YOU

Questions: Use Figure 1 and Table 1 to answer the following questions.

1. Identify two terms that describe components that are smaller than cells and four that are larger than cells.

Smaller than a cell	Larger than a cell
a.	a.
b.	b.

2. Classify and label the following images with the correct level of organization.



3. A tissue is made up of _____.
4. Organs are made up of _____.
5. Organ systems are made up of _____.
6. Indicate whether each of the following statements is “true” or “false”:
 - a. Organs are composed of multiple tissue types. _____
 - b. Tissues are composed of multiple cell types. _____
 - c. Tissues are composed of multiple organ types. _____
7. Complete the chart below by identifying the organ systems associated with the example organs listed: (The first row is completed as an example. You may use the internet if needed.)

Organ	Organ System
Femur	Skeletal System
Heart	
Brain	
Skin	
Pituitary Gland	
Lungs	
Spleen and Appendix	
Uterus	
Kidney	
Biceps Brachii	
Small Intestine	

8. Organs are sometimes shared by two or more systems - for example, your mouth can be considered a part of the digestive and the respiratory systems.

Identify the systems that the organs given below are included in.

- a. The **nose** is an organ in these organ systems: _____ and _____
- b. The **kidneys** are organs in these organ systems: _____ and _____
- c. The **pancreas** is an organ in these organ systems: _____ and _____