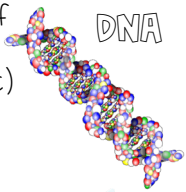
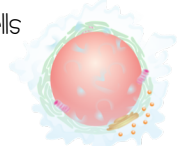


# Cells, Tissues, Organs, and Systems

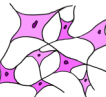
Cells are the very basic unit of structure and function of all living things. Cells themselves are living things! There are different types of cells such as animal and plant (eukaryotic) as well as bacteria and archaea (prokaryotic). Each cell contains the genetic material that builds life (DNA). That genetic material has a unique code that gives each cell a special job. In animals and humans, the genetic information tells the cell whether it will be a skin cell, nerve cell, muscle cell, bone cell, etc. Plant cells use the sun to produce energy in a process called photosynthesis. All cells reproduce by splitting from one to two. These cells are the base of a hierarchy that builds living things and they all have specialized jobs.



DNA

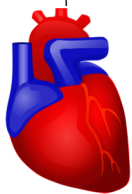


CELL

 At the very beginning of human life when a baby is created, cells get right to work replicating and learning their job based on what their DNA was assigned. Similar cells group together in a very organized way to form tissue in the human body. This tissue is a group of cells that have the same structure and function. There are four main types of body tissue. Muscle tissue is made up of rubber-band like long cells ready to expand and contract. Epithelial tissue is made of cells that are flat and cube-like arranged in columns that cover our body and is knitted tightly together like a blanket. Connective tissue is made of cells that connect and hold our body parts together. These cells fill empty spaces in our body in a gel-like substance. Nervous tissue is made of cells called neurons that help transmit signals from the nervous system to the spinal cord and then to the brain.

NERVE  
TISSUE

Specialized cells come together to form tissue, then tissue comes together to then build organs. For example, cardiac muscle tissue works together to build a beating heart. Your tummy and outer layer of skin is made of layers of epithelial tissue. Other organs include the brain, lungs, intestine, and kidneys. Your skeletal bones are made of it's own group of specialized cells and tissue.



HEART

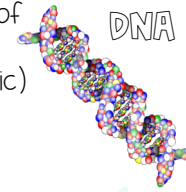


MUSCULAR  
SYSTEM

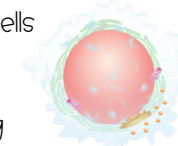
Cells make up tissues, tissues make up organs, and organs come together to build organ systems. Your body is made of 11 different organ systems that include the circulatory, excretory, digestive, respiratory, muscular, and nervous systems. Your cells, tissues, and organs work together to form these amazing systems to keep your body functioning on a day to day basis.

# Cells, Tissues, Organs, and Systems

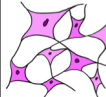
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DNA



CELL

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HEART

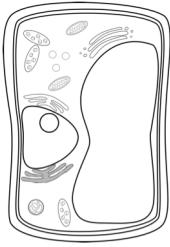


MUSCULAR  
SYSTEM

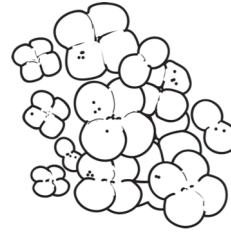
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Instructions: First, color and cut out ALL of the flip flaps on STUDENT PAGE 1 and color and cut out all the cut and paste pieces on STUDENT PAGE 2. Next, match the cut and paste pieces with the correct picture or word and glue down. Next, glue down the CELLS, TISSUE, ORGANS, and ORGAN SYSTEMS flip flaps as a flip book on one page of your notebook. Be sure to keep them in order. On a different notebook page, glue down the organization chart and draw in your own examples. Last, respond to the writing prompt and add any other information your teacher instructs.

**cells**

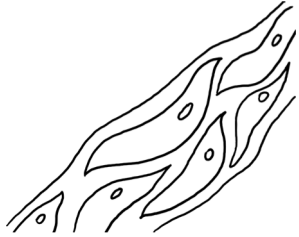


**Animal**

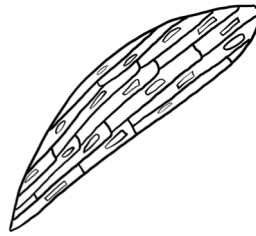


**Bacteria**

**TISSUE**



**epithelial**

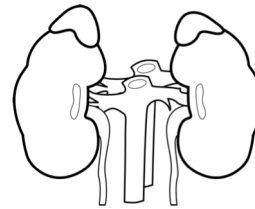


**Nervous**

**organs**

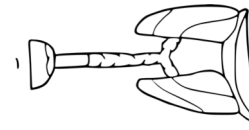


**Lungs**

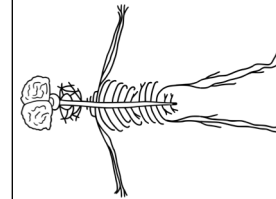


**stomach**

**organ systems**



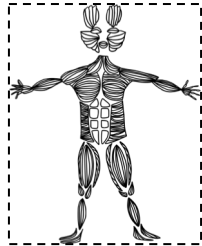
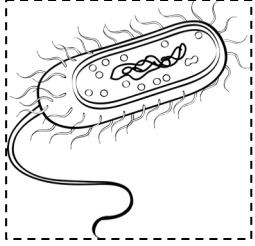
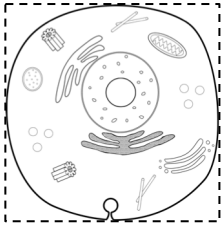
**skeletal**



**muscular**

**STUDENT  
PAGE 1**

# Cut & Paste Pieces



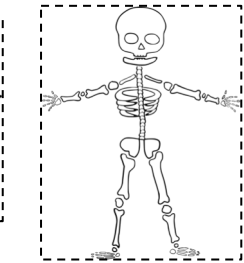
plant

connective

archaea

muscle

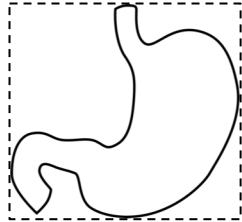
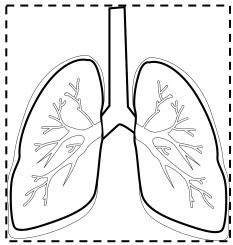
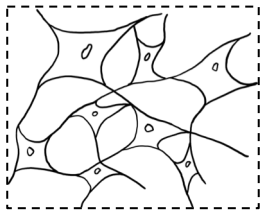
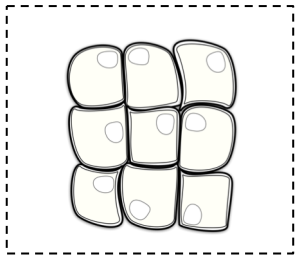
respiratory



brain

nervous

kidneys



## ORGANIZATIONAL CHART : Draw in your own examples

CELLS → TISSUES → ORGANS → SYSTEMS

Writing Prompt: Explain how your body is a system of interacting sub-systems.  
Use evidence from the reading to support your answer.

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