



High School Science Virtual Learning

Biology

**Interacting Body Systems and
Homeostasis**

April 14, 2020



High School Applied Biological Science

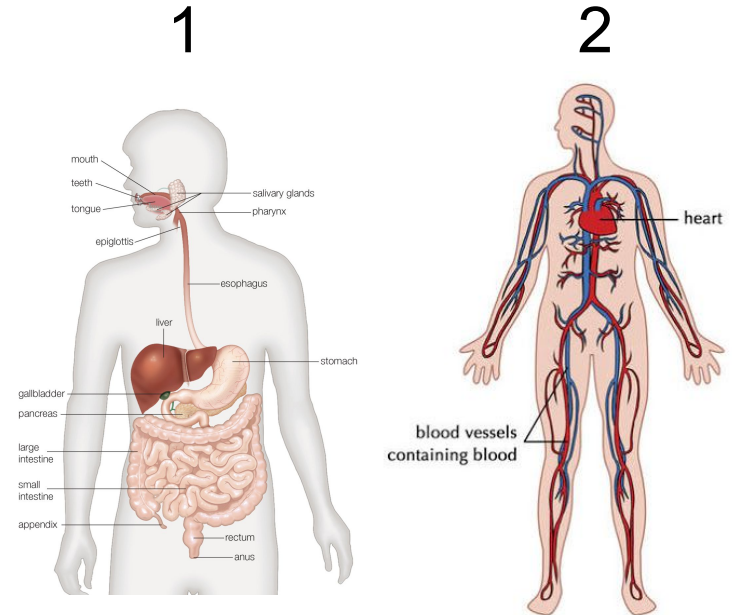
Lesson: April 14th, 2020

Objective/Learning Target:

I can describe how body systems interact to maintain homeostasis.

Let's Get Started:

1. What is the name and function of the system labeled 1?
2. What is the name and function of the system labeled 2?





Let's Get Started: Answer Key

1. Digestive system and its function is to take in and break down food into usable nutrients. Then remove indigestible food.
2. Circulatory/Cardiovascular system and its function is to move oxygen and other nutrients to and from the cells.

Lesson Activity:

Directions:

1. Watch the National Geographic video linked below 1 time all the way through.
2. Watch the video a second time and do the following
 - a. List 3 systems that work together to move oxygen through the body.
 - b. List 3 systems and ways they help maintain the body.
 - c. List the systems that interact to react to changes in the body.

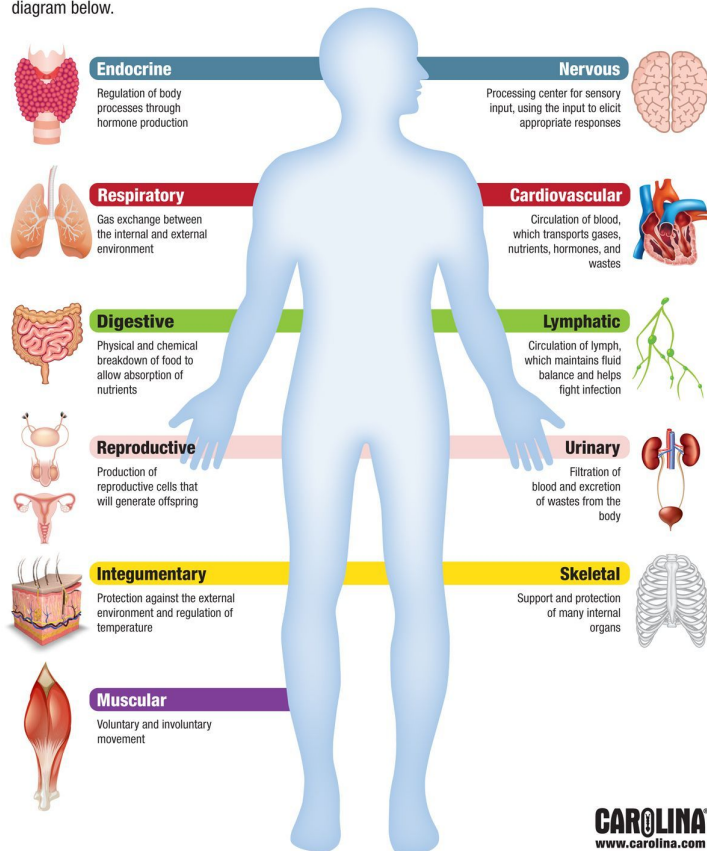
Links: [Nat Geo Body System Video](#)

Practice

Complete the following questions using the information you learned during the lesson activity.

Human Body Systems

There are 11 main systems that keep our bodies functioning. Learn the primary roles of each in the diagram below.



Questions:

1. What do the digestive, respiratory, circulatory, and excretory systems have in common?
2. What would happen to the human body if one of the organ systems stopped working?
3. Name all the organ systems that you would use for walking from the front of the school to your first period class. Then describe why you are using each of those systems. (Hint: use multiple systems in answer)
4. Name all the organ systems you would use while sitting at the lunch table eating a carrot. (Hint: use multiple systems in your answer)
5. Name 2 body systems that interact to maintain homeostasis in the human body and explain how they do.

Once you have completed the practice questions check with the **answer** key.

1. They move nutrients around the body.
2. After one system shuts down, the others would slowly start to shut down as well until the body can no longer maintain homeostasis and the person would slowly die.
3. All systems would be working together but the main ones would be muscular, nervous, and skeletal. Muscular would be the muscles contracting to move the skeletal system which would provide the structure. The nervous system would decide which muscle and bone to move.
4. All systems would be working together but the main ones would be would be the digestive system, muscular system, nervous system, and circulatory system. Digestive and muscular systems would be working together to chew food and work it down to the stomach to be digested. The digestive system and circulatory circulatory system would be working together to break food down and move nutrients to cells. The nervous system decides what to eat and when to chew.
5. Examples: Nervous & circulatory - interact to maintain changes in heart rate in the human body, Digestive & endocrine - interact to control glucose (sugar) levels within the human body

More Practice:

Follow the links below to do more practice.

1. [Body System Interaction Quizizz](#)
2. [Body System Interaction Interactive](#)



Additional Practice:

Click on the links below for additional practice.

[Body System Reading and Questions](#)

[Khan Academy Homeostasis and Body Systems](#)