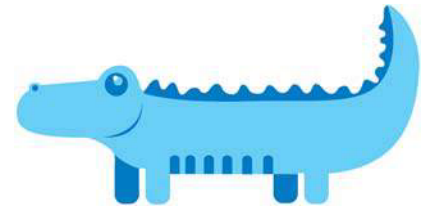


Name \_\_\_\_\_ **Level of Organization**

# Level of Organization

**Directions:** Match each word with its definition.



- |                   |   |   |
|-------------------|---|---|
| _____ 1. system   | A | a structure composed of different kinds of tissues that work together to perform a function |
| _____ 2. tissue   | B | basic functional unit of all living things  |
| _____ 3. organ    | C | a group of organs that work together to perform a specific function                         |
| _____ 4. cell     | D | a living thing (plant or animal)  |
| _____ 5. organism | E | a group of similar cells that perform the same function                                     |

Fill in the blanks. Put the items in order from simplest to most complex.

skull	lung tissue	bone cells	respiratory system	tissue
-------	-------------	------------	--------------------	--------

6. bone cells, bone tissue, \_\_\_\_\_, skeletal system, alligator

7. lung cell, \_\_\_\_\_, lung, \_\_\_\_\_, alligator

8. cell, \_\_\_\_\_, organ, system, organism

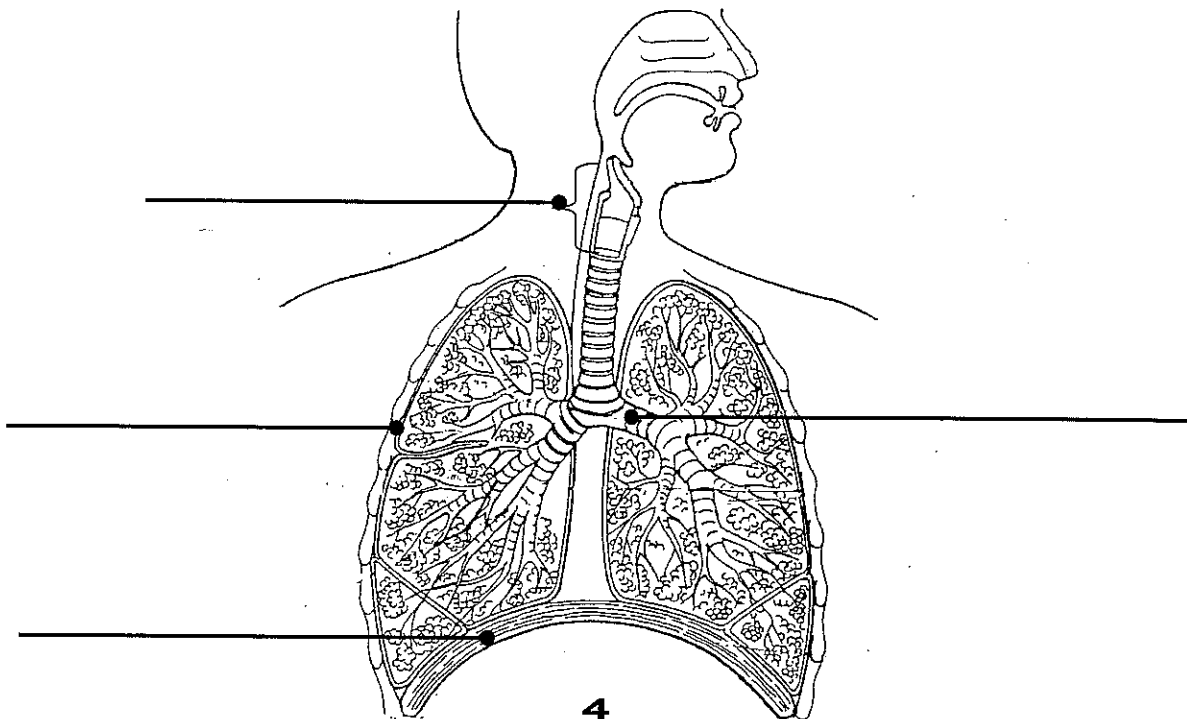
Name \_\_\_\_\_ Day \_\_\_\_\_ Date \_\_\_\_\_

## Respiratory System Worksheet

Use the correct word from the word bank to fill in the answers to the questions and the labeling.

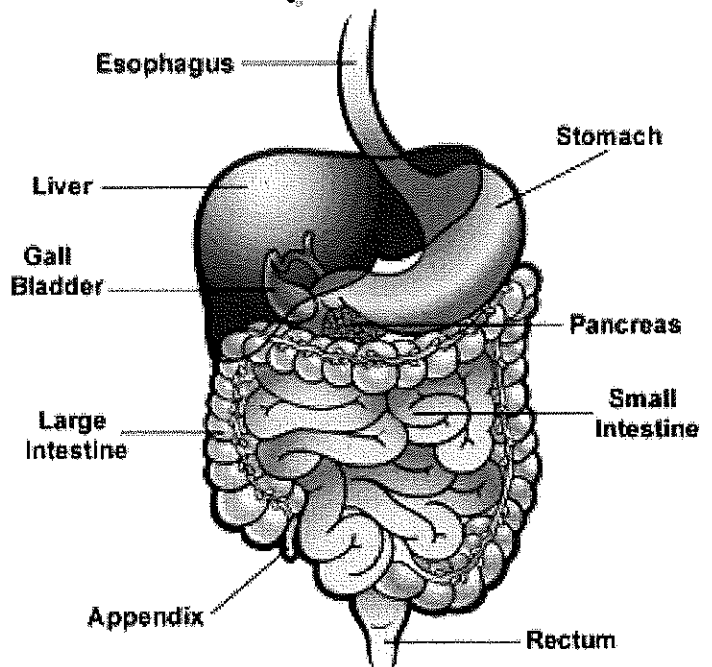
larynx	bronchioles	alveoli
diaphragm	pleura	bronchi
trachea	pharynx	lungs
oxygen	diaphragm	cilia

- \_\_\_\_\_ 1. The tube that connects the throat and bronchi.
- \_\_\_\_\_ 2. The tiny hairs that clean the air.
- \_\_\_\_\_ 3. The large band of muscle that controls the size of the chest cavity.
- \_\_\_\_\_ 4. The two large lightweight organs of the respiratory system.
- \_\_\_\_\_ 5. The many little branches of the respiratory system.
- \_\_\_\_\_ 6. The part of the respiratory system that is the voicebox.
- \_\_\_\_\_ 7. The grape like clusters of air sacs in the lungs.
- \_\_\_\_\_ 8. What we breathe in.



# Your Digestive System

So there you are, sitting at lunch, enjoying some grilled chicken pizza and a few orange wedges. When you're finished, you take a last drink of milk, wipe your mouth, and head to your next class. In a few minutes you're thinking about the capital of Oregon or your science fair project. You've completely forgotten about that pizza lunch you just ate. But it's still in your stomach — sort of like a science experiment that happens all the time!



## The Mouth Starts Everything Moving

Your **digestive** (say: dye-jes-tiv) **system** started working even before you took the first bite of your pizza. And the digestive system will be busy at work on your chewed-up lunch for the next few hours — or sometimes days, depending upon what you've eaten. This process, called **digestion**, allows your body to get the nutrients and energy it needs from the food you eat. So let's find out what's happening to that pizza, orange, and milk.

Even before you eat, when you smell a tasty food, see it, or think about it, digestion begins. **Saliva** (say: suh-lye-vuh), or spit, begins to form in your mouth. When you do eat, the saliva breaks down the chemicals in the food a bit, which helps make the food mushy and easy to swallow. Your tongue helps out, pushing the food around while you chew with your teeth. When you're ready to swallow, the tongue pushes a tiny bit of mashed-up food called a **bolus** (say: bow-lus) toward the back of your throat and into the opening of your esophagus, the second part of the digestive tract.

## On the Way Down

The **esophagus** (say: ih-sof-eh-gess) is like a stretchy pipe that's about 10 inches (25 centimeters) long. It moves food from the back of your throat to your stomach. But also at the back of your throat is your windpipe, which allows air to

come in and out of your body. When you swallow a small ball of mushed-up food or liquids, a special flap called the **epiglottis** (say: ep-ih-**glot**-iss) flops down over the opening of your windpipe to make sure the food enters the esophagus and not the windpipe.

If you've ever drunk something too fast, started to cough, and heard someone say that your drink "went down the wrong way," the person meant that it went down your windpipe by mistake. This happens when the epiglottis doesn't have enough time to flop down, and you cough involuntarily (without thinking about it) to clear your windpipe.

Once food has entered the esophagus, it doesn't just drop right into your stomach. Instead, muscles in the walls of the esophagus move in a wavy way, **peristalsis**, to slowly squeeze the food through the esophagus. This takes about 2 or 3 seconds.

### **See You in the Stomach**

Your stomach, which is attached to the end of the esophagus, is a stretchy sack shaped like the letter J. It has three important jobs:

1. to store the food you've eaten
2. to breakdown the food into a liquid mixture
3. to slowly empty that liquid mixture into the small intestine

The stomach is like a mixer, churning and mashing together all the small balls of food that came down the esophagus into smaller and smaller pieces. It does this with help from the strong muscles in the walls of the stomach and **gastric** (say: **gas**-trik) **juices** that also come from the stomach's walls. In addition to breaking down food, gastric juices also help kill bacteria that might be in the eaten food.

Onward to the small intestine!

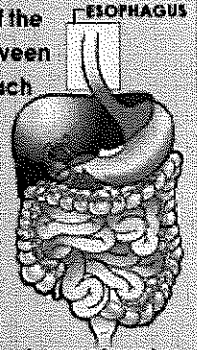
### **22 Feet Isn't Small at All**

The **small intestine** (say: in-**tes**-tin) is a long tube that's about 1½ inches to 2 inches (about 3.5 to 5 centimeters) around, and it's packed inside you beneath your stomach. If you stretched out an adult's small intestine, it would be about 22 feet long (6.7 meters) — that's like 22 notebooks lined up end to end, all in a row!

The small intestine breaks down the food mixture even more so your body can absorb all the vitamins, minerals, proteins, carbohydrates, and fats. The chicken on your pizza is full of proteins — and a little fat — and the small intestine can help extract them with a little help from three friends: the **pancreas** (say: pan-kree-us), **liver**, and **gallbladder**.

### Taking the Heart Out of Heartburn

The esophagus has a ring of muscles at the top and bottom. If the bottom ring of muscles doesn't keep the lower part of the esophagus tightly closed between swallows, acid from the stomach can come back up into the esophagus. This creates a burning sensation called heartburn, but it has nothing to do with the heart. The pain a person may feel is in the area of the heart, but it would make more sense to call it esophagus-burn!



Those organs send different juices to the first part of the small intestine. These juices help to digest food and allow the body to absorb nutrients. The **pancreas** makes juices that help the body digest fats and protein. A juice from the liver called **bile** helps to absorb fats into the bloodstream. And the **gallbladder** serves as a warehouse for bile, storing it until the body needs it.

Your food may spend as long as 4 hours in the small intestine and will become a very thin, watery mixture. It's time well spent because, at the end of the journey, the nutrients from your pizza, orange, and milk can pass from the intestine into the blood. Once in the blood, your body is closer to benefiting from the complex carbohydrates in the pizza crust, the vitamin C in your orange, the protein in the chicken, and the calcium in your milk.

Next stop for these nutrients: the liver, and the leftover waste (remnants of the food that your body can't use) which goes on to the large intestine.

### Love Your Liver

The nutrient-rich blood comes directly to the liver for processing. The **liver** filters out harmful substances or wastes, turning some of the waste into more bile. The liver even helps figure out how many nutrients will go to the rest of the body, and how many will stay behind in storage. For example, the liver stores certain vitamins and a type of sugar your body uses for energy.

## That's One Large Intestine

At 3 or 4 inches around (about 7 to 10 centimeters), the **large intestine** is fatter than the small intestine and it's almost the last stop on the digestive tract. Like the small intestine, it is packed into the body, and would measure 5 feet (about 1.5 meters) long if you spread it out. Here is where water and any remaining nutrients are absorbed back into the body.

The large intestine has a tiny tube with a closed end coming off it called the **appendix** (say: uh-**pen**-dix). It's part of the digestive tract, but it doesn't seem to do anything, though it can cause big problems because it sometimes gets infected and needs to be removed.

Like we mentioned, after most of the nutrients are removed from the food mixture there is waste left over — stuff your body can't use. This stuff needs to be passed out of the body.

Before it goes, it passes through the part of the large intestine called the **colon** (say: **coe**-lun), which is where the body gets its last chance to absorb the water and some minerals into the blood. As the water leaves the waste product, what's left gets harder as it keeps moving along, until it becomes a solid. It is called **feces** (also called stool or a bowel movement).

The large intestine pushes the feces into the **rectum** (say: **rek**-tum), the very last stop on the digestive tract. The solid waste stays here until you are ready to go to the bathroom. When you go to the bathroom, you are getting rid of this solid waste by pushing it through the **anus** (say: **ay**-nus).

## Dig That Digestive System

You can help your digestive system by drinking water and eating a healthy diet that includes foods rich in fiber. High-fiber foods, like fruits, vegetables, and whole grains, make it easier for feces to pass through your system.

The digestive system is a pretty important part of your body. Without it, you couldn't get the nutrients you need to grow properly and stay healthy. And next time you sit down to lunch, you'll know where your food goes — from start to finish!

# Digestive System Worksheet

1. What is the function of the digestive system?

\_\_\_\_\_.

2. \_\_\_\_\_ helps to moisten food.

3. \_\_\_\_\_ moves food through the esophagus.

4. \_\_\_\_\_ helps to protect the stomach lining.

5. Name 2 organs that food DOES NOT pass through

\_\_\_\_\_

6. In which organ does most of the digestive process take place?

\_\_\_\_\_ (2 words)

7. What organ removes water from digested food?

\_\_\_\_\_ (2 words)

8. The \_\_\_\_\_ filters out harmful wastes.

# Digestive System Parts

Directions: Match up the words in the word bank with definitions 1 – 10.

1.	Breaks down the food mixture even more so your body can absorb all the vitamins, minerals, proteins, carbohydrates, and fats.
2.	serves as a warehouse for bile, storing it until the body needs it
3.	stores the food you've eaten; breaks down the food into a semi-liquid mixture and slowly empties the mixture into the small intestine
4.	makes juices that help the body digest fats and protein
5.	water and remaining nutrients are absorbed back into the body; the colon, rectum and anus are part of here
6.	doesn't seem to do anything, though it can cause big problems because it sometimes gets infected and needs to be removed; lower right side
7.	a stretchy pipe that's about 10 inches (25 centimeters) long. It moves food from the back of your throat to your stomach
8.	breaks down the chemicals in the food a bit, which helps make the food mushy and easy to swallow
9.	Creates a substance called bile which helps absorb fats into the bloodstream; filters out harmful substances or wastes; determines amount of nutrients to send to body and how much to store
10.	Breaks down food into smaller pieces before being swallowed

## WORD BANK

Mouth/Teeth    Saliva    Esophagus    Stomach    Small Intestine  
Appendix    Large Intestine    Pancreas    Gall Bladder    Liver

# Digestive Anatomy Review

**Directions:** Complete the crossword below using the word bank. The numbers on the diagram correspond to the crossword numbers.

## WORD BANK

Rectum

Pancreas

Liver

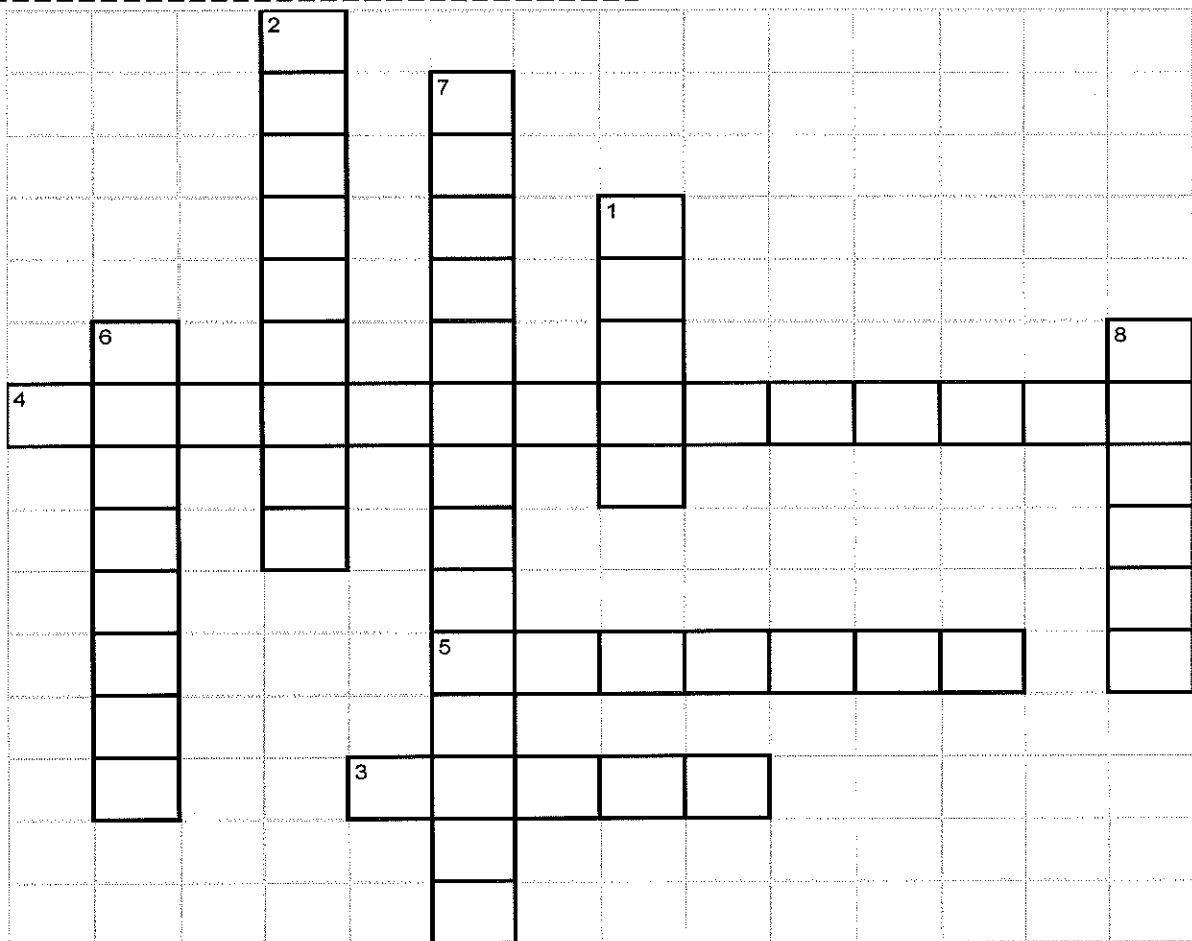
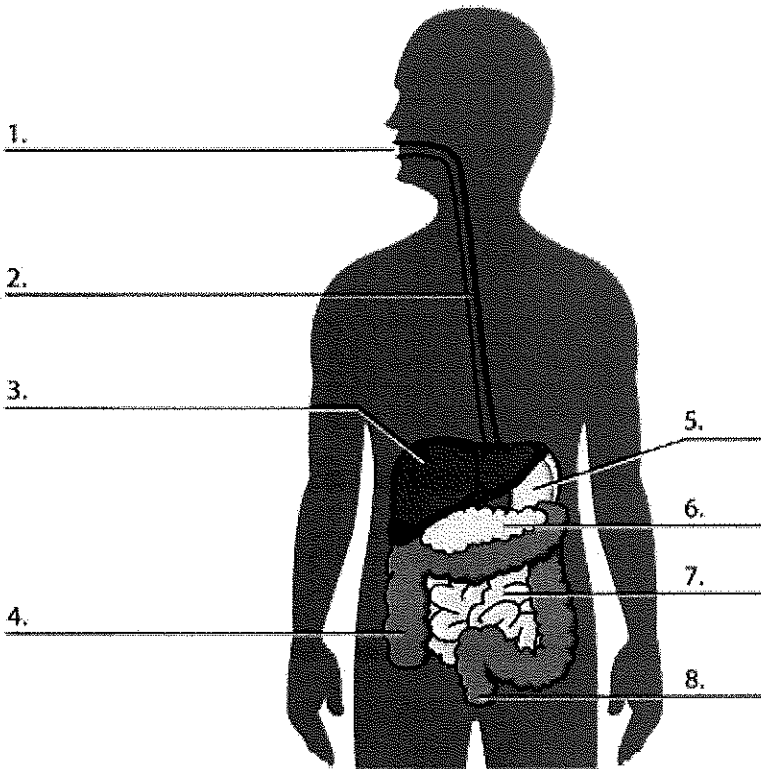
Large Intestine

Small Intestine

Mouth

Esophagus

Stomach



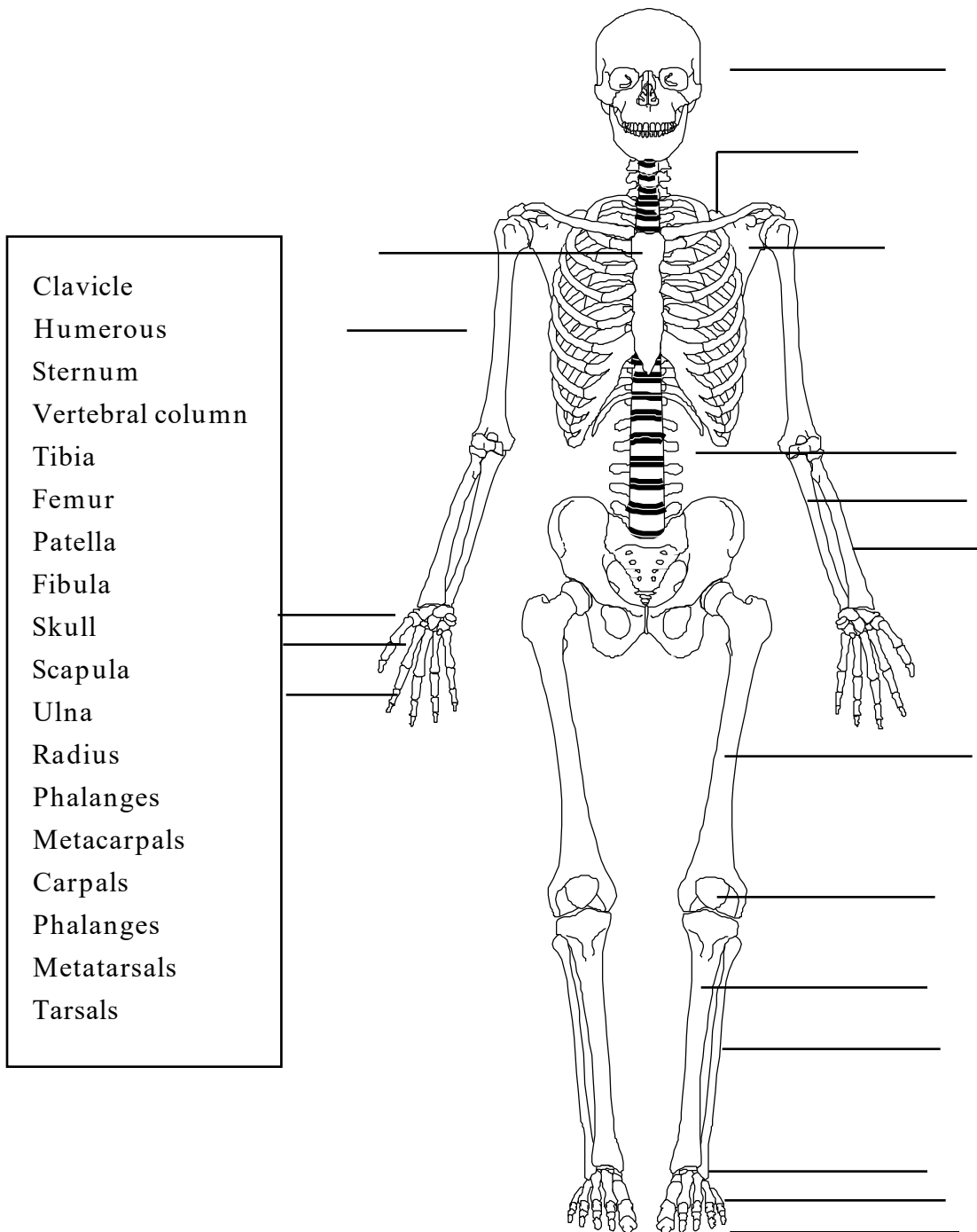
Name \_\_\_\_\_

Date \_\_\_\_\_

## THE SKELETAL AND MUSCULAR SYSTEMS

### The Skeleton

**Directions:** Place the words listed below next to the lines on the skeletal diagram.



THE SKELETAL AND MUSCULAR SYSTEMS

from The Human Body Systems Series

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# Muscular System Questions - 6th Grade Health

Please answer the following questions on the movie you saw.  
Use the word bank to answer the questions.

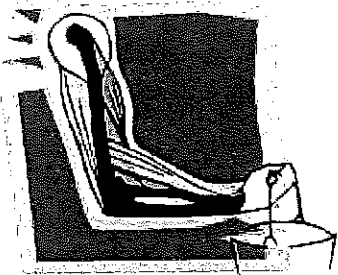
cardiac  
involuntary  
tendons

ligaments  
relax  
voluntary

alone  
pairs  
skeletal

1. Muscle cells contract and \_\_\_\_\_.
2. Muscles that allow you to move are \_\_\_\_\_ muscles.
3. Muscles are attached to bones by cords called \_\_\_\_\_.
4. Muscles that move without our conscious control are \_\_\_\_\_  
muscles.
5. The heart is made of \_\_\_\_\_ muscles.
6. Muscles work in \_\_\_\_\_.
7. Which of the three types of muscles need rest \_\_\_\_\_?

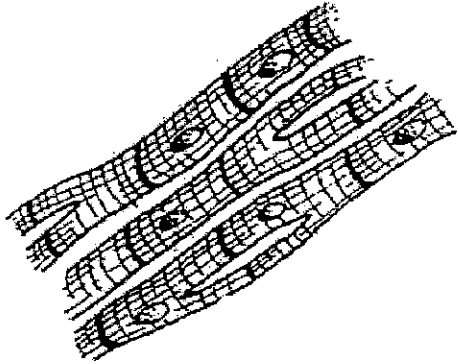
# Shapes and Sizes of Muscles Review – 6<sup>th</sup> Grade Health

<p>1. Smooth, skeletal, and cardiac muscles are the three types of muscle in your body.</p> <p><input type="radio"/> A False <input type="radio"/> B True</p>	<p>2. Bones are moved by _____ muscle.</p> <p><input type="radio"/> A Cardiac <input type="radio"/> B Skeletal <input type="radio"/> C Smooth</p>
<p>3. A muscle is called a(n) _____ if it straightens part of your body.</p> <p><input type="radio"/> A Extensor <input type="radio"/> B Flexor</p>	<p>4. There are two types of muscle fibers.</p> <p><input type="radio"/> A False <input type="radio"/> B True</p>
<p>5. Bundles of muscle fibers are called _____.</p> <p><input type="radio"/> A Leucocytes <input type="radio"/> B Myocytes <input type="radio"/> C Erythrocytes</p>	<p>6. Which is an example of cardiac muscle?</p> <p><input type="radio"/> A esophagus <input type="radio"/> B Biceps <input type="radio"/> C Heart <input type="radio"/> D Blood vessels</p>
<p>7. The muscles in the glutes are small.</p> <p><input type="radio"/> A False <input type="radio"/> B True</p>	

# Muscle Types Picture Notes - 6th Grade Health

category

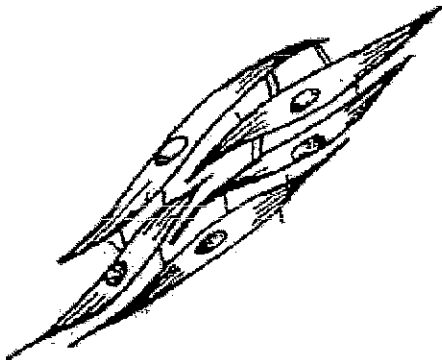
## Involuntary



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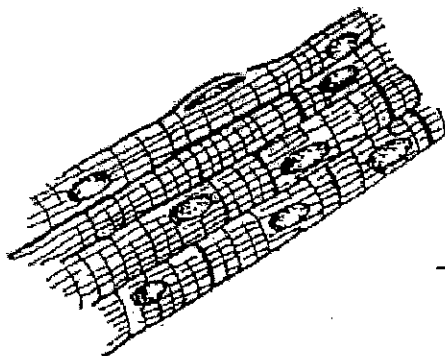
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category

## Voluntary



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# Muscle Types Worksheet- 6th Grade Health

In the space provided write: **cardiac, smooth** or **skeletal**.

\_\_\_\_\_ 1. These muscles control breathing and digestion.

\_\_\_\_\_ 2. These muscles never tire.

\_\_\_\_\_ 3. These muscles move bones.

\_\_\_\_\_ 4. These muscles are found only in the heart.

\_\_\_\_\_ 5. These muscles control voluntary movements.

\_\_\_\_\_ 6. These muscles react slowly and tire slowly.

\_\_\_\_\_ 7. These muscles react quickly and tire quickly.

\_\_\_\_\_ 8. These muscles are striated.

/8

**Content Vocabulary*****The Excretory System***

**Directions:** Each of the following statements is false. Replace the underlined word(s) to make the statement true by using a term from the list below. Write your changes on the lines provided. NOTE: You may need to change a term to its plural form.

**area****bladder****excretory system****kidney****nephron****ureter****urethra****urine**

1. Urine is stored in a muscular sac called the ureter.  
\_\_\_\_\_
2. A bean-shaped organ called the bladder filters wastes from the blood.  
\_\_\_\_\_
3. Urine leaves the kidneys through the urethra.  
\_\_\_\_\_
4. Some wastes exit the body in a fluid called area.  
\_\_\_\_\_
5. The organs of the digestive system regulate fluid levels and eliminate wastes from the body.  
\_\_\_\_\_
6. The actual filtration of blood occurs within the millions of ureters in the kidneys.  
\_\_\_\_\_
7. Urine leaves the bladder through a duct called the excretory system.  
\_\_\_\_\_
8. Each nephron of the excretory system has a function.  
\_\_\_\_\_

**Lesson Outline****LESSON 3**

## ***The Excretory System***

**A. Functions of the Excretory System**

1. The \_\_\_\_\_ collects and eliminates wastes from the body and regulates the level of fluid in the body.
2. If body \_\_\_\_\_ is not eliminated, it could become toxic and damage organs.
3. The excretory system controls how much water leaves the body through \_\_\_\_\_.
4. The organs of the \_\_\_\_\_ system collect and remove undigested solids from food.
5. The \_\_\_\_\_ system processes, transports, collects, and removes liquid waste from the body.
6. The \_\_\_\_\_ system, which includes the skin, secretes excess salt and water through sweat glands.

**B. Organs of the Urinary System**

1. The \_\_\_\_\_ is a bean-shaped organ that filters wastes from blood.
2. \_\_\_\_\_ are networks of capillaries and tubules in the kidneys, where filtration of blood occurs.
3. When kidneys filter blood plasma, they produce a fluid called \_\_\_\_\_.
4. Urine leaves each kidney through a tube called the \_\_\_\_\_.
5. Both ureters drain into the \_\_\_\_\_. It is a muscular sac that holds urine until the urine is \_\_\_\_\_.
6. Urine leaves the bladder through a tube called the \_\_\_\_\_.
7. The urethra contains circular muscles called \_\_\_\_\_ that control the release of urine.

**C. Urinary Disorders**

1. A urinary disorder is an illness that affects one or more \_\_\_\_\_ of the urinary system.
2. Common urinary disorders include kidney disease, urinary tract infection, kidney \_\_\_\_\_, and bladder control problems.

## ***The Excretory System***

**Directions:** On each line, write the term from the word bank that correctly completes each sentence. Each term is used only once.

<b>blood</b>	<b>excretory</b>	<b>integumentary</b>	<b>liquid</b>
<b>nephrons</b>	<b>respiratory</b>	<b>solids</b>	<b>ureter</b>
<b>urethra</b>	<b>urinary</b>	<b>urine</b>	<b>water</b>

1. The \_\_\_\_\_ system collects and eliminates wastes from the body.
2. The excretory system controls how much \_\_\_\_\_ is eliminated from the body.
3. The organs of the digestive system remove undigested \_\_\_\_\_, whereas the urinary system removes \_\_\_\_\_ waste.
4. The \_\_\_\_\_ system removes carbon dioxide and water vapor from the body.
5. The \_\_\_\_\_ system secretes excess salt and water through sweat glands.
6. The \_\_\_\_\_ system includes two kidneys, two ureters, the bladder, and the urethra.
7. The kidneys remove wastes from \_\_\_\_\_.
8. Networks of capillaries and small tubes in the kidneys are called \_\_\_\_\_.
9. When blood is filtered, \_\_\_\_\_ is produced.
10. Urine leaves each kidney through a tube called the \_\_\_\_\_.
11. The bladder is an organ that holds urine until it is excreted through the \_\_\_\_\_.