

Name: _____
Science: _____

SMS
Date: _____

Body Systems Packet

Human Body

Word Bank

brain	liver	small intestine	trachea	arteries
heart	stomach	large intestine	skin	bones
lungs	kidneys	esophagus	veins	muscles

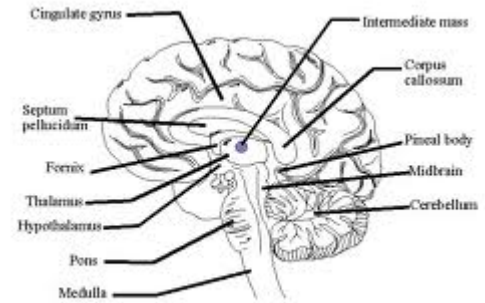
1. I have many jobs. I make bile to help your stomach break down food. I also store nutrients your body needs. I also make antibodies to help you fight disease. What am I? _____
2. I take in and absorb the nutrients that your body needs from your food and I put it in your bloodstream so your body can use it. What am I? _____
3. I am a muscle located behind your lungs. I am always moving and I never get tired. I pump blood to all parts of your body. What am I? _____
4. When you eat, I mix your food with chemicals made by your body, and then I churn up your food into smaller parts. What am I? _____
5. Your body can't use every part of the food you eat. The waste comes to me, and I dry it out so it can leave your body. What am I? _____
6. We are a pair of filters that clean your blood. We take liquid waste from your bloodstream and we send it down to your bladder. What am I? _____
7. We take oxygen that your body needs from the air and put it in your bloodstream. We also take carbon dioxide that is in your blood and send it out of your body. What am I? _____
8. I hold your body parts in. I have pores so sweat can escape your body. I am filled with nerves that help you to sense temperature and feel the things around you. What am I? _____
9. I control your muscles and all of the organs in your body. I make sure you breathe automatically, ensure your heart beats properly and remind you to blink your eyes. I even hold all of your thoughts and memories. What am I?

10. We give your body support and structure. We also protect your delicate organs like your brain, liver, and lungs. We are filled with a substance called marrow. What am I? _____
11. We are blood vessels that send blood back towards your heart. Most of the blood we carry doesn't have much oxygen left in it. What am I? _____
12. We are blood vessels that send blood away from your heart to all different parts of your body. We have thicker, stronger walls than veins. What am I? _____
13. I am sometimes called your "windpipe. When you breathe, air travels through me to your lungs. What am I?

14. We work in pairs to pull your bones in different directions. We also help move food and blood through your body. Without us, you wouldn't be able to move at all. What am I? _____
15. I am a tube in your throat. When you swallow, food or drink travels down through me into your stomach. What am I?

Your Brain

by Cynthia Sherwood



You may not realize that you have a boss, just like adults do at work. But when it comes to your body, your brain is your boss! It is in charge of just about everything you do. When you remember what you ate for breakfast, you use your brain. When you jump up and down, you use your brain. When you draw a picture, you use your brain. Even when you are dreaming, you use your brain.

The brain looks like a wrinkled, wet sponge. It weighs only about three pounds, but it is made up of billions of nerve cells. These cells send and receive electrical signals that direct all of your body's activities. Sometimes, like when you are learning at school, you know you are using your brain. Many times, though, your brain controls your body without you even thinking about it. The "brain stem" takes care of things your body does automatically, like breathing air, pumping blood, and digesting food.

The biggest part of your brain is called your "cerebrum" (suh-ree-brum). This is the thinking part of your brain. It controls your memory, the movements you choose to make, your ability to figure things out, and your imagination. The cerebrum is made up of two halves. It may sound mixed up, but the left side controls the right side of your body and the right side controls your left side.

Even your feelings come from your brain. Scientists think emotions are controlled by a part of your brain called the "amygdala" (uh-mig-duh-luh). It is shaped like an almond and is only an inch long. So next time you get in a bad mood, you can blame it on your brain.

You should be glad you have a human brain. It is very complex, which means we can think in different, more complicated ways than other animals. In fact, every day your brain produces about 70 thousand thoughts. No wonder your head hurts when you have too much homework!

1. According to the information in the article, what does your brain look like and how much does it weigh?

2. What part of your brain controls your memory?

3. Which part of your brain automatically controls parts of your body without you having to think about them?

4. Which part of your brain controls feelings, like happiness, sadness, frustration, and anger?

5. Why does the author say that your cerebrum is mixed up?

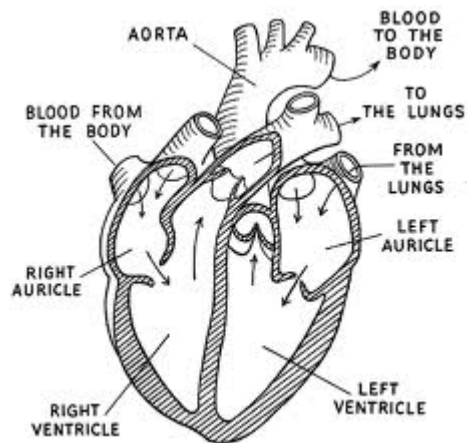
6. Your brain is made of nerve cells. What do nerve cells do?

7. Which statement from the article is an opinion?

- A. Even your feelings come from your brain.**
- B. Sometimes, your brain controls your body without you even thinking about it.**
- C. You should be glad you have a human brain.**
- D. Every day, your brain produces about 70 thousand thoughts.**

Your Heart

by Cynthia Sherwood



Have you ever watched as your mom or dad pumps gas into your car? You may not realize it, but the most vital part of your body—your heart—is simply a fancy pump. It is designed to move your blood around your body. The heart is located a little to the left of the center of your chest and is about the size of your fist.

Your heart works very hard. When you run around a lot, you can feel your heart beating fast because it is pushing blood filled with oxygen and nutrients to the cells in your body. Your heart is a muscle too! It is divided into two parts. The right side receives blood from your body and pumps it into your lungs. The left side receives blood from the lungs and returns it to the rest of the body.

Your heart muscle beats between 80 and 120 times every minute. With each beat, blood is both entering and leaving your heart. The vessels that carry blood away from your heart are called arteries. The vessels that carry blood back to your heart are called veins.

Heart disease is common among older Americans because the heart can become clogged over time. The heart will not pump as well if someone smokes or eats a lot of unhealthy fats and sugary foods. To take good care of your heart, you should eat plenty of whole grains, fruits, vegetables, and lean proteins. You should also exercise often to get your heart pumping hard. Just like other muscles in your body, your heart needs exercise to keep strong.

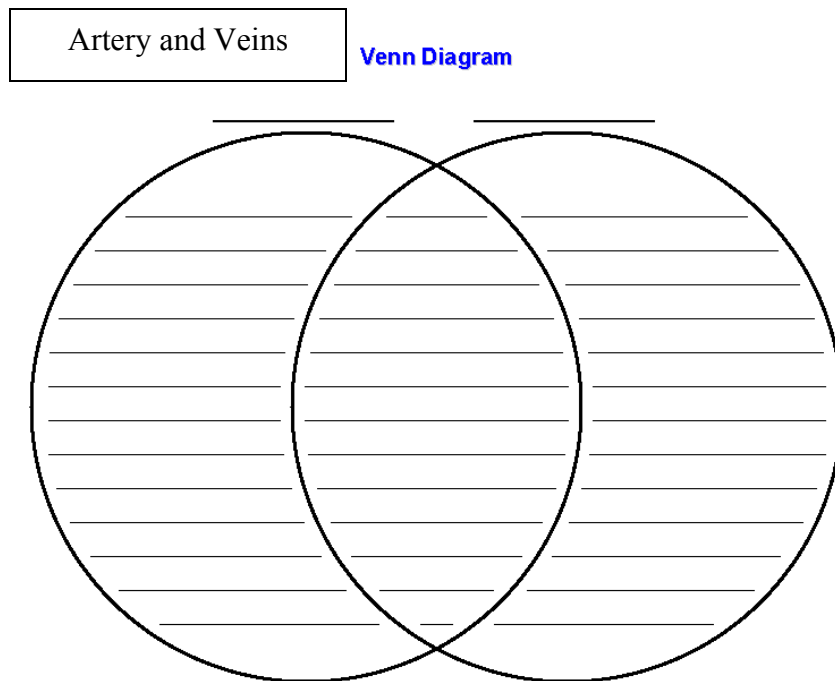
If you wonder why it is so important to have a strong heart, just think about this—your heart will beat about three billion times in your life!!

1. Where is your heart located?

2. What does your heart do for your body?

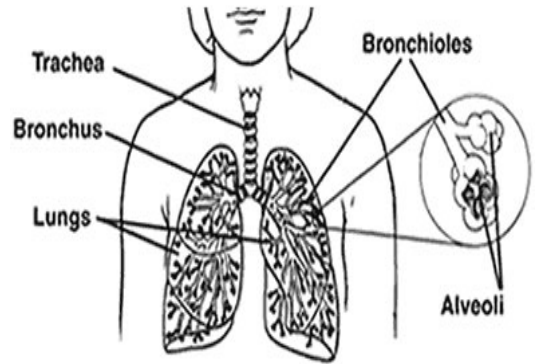
3. How is the left side of your heart different from your right side?

4. Complete the Venn diagram to compare and contrast the functions of arteries and veins



 Math-Aids.Com

5. What are some things you can do to keep your heart healthy?



Your Lungs

by Cynthia Sherwood

You do something about twenty times a minute without even thinking about it—you breathe! In fact, every day, you take about twenty-thousand breaths. The organs of your body that allow you to breathe are called your lungs. You have two of them that work together, located in your chest inside the rib cage.

The main purpose of your lungs is to breathe in good air and breathe out bad air. The good air contains oxygen, which your body needs. The bad air is a gas called carbon dioxide, which your body cannot use.

When you breathe in through your nose or mouth, air travels down the back of your throat. It passes through your voice box and into your trachea, or windpipe. Your trachea is divided into two air passage tubes. One leads to your left lung. The other leads to your right lung. Inside your lungs, oxygen is removed from the air you breathe and pumped into blood cells. Your lungs also get rid of harmful carbon dioxide from these cells. This process takes place inside hundreds of millions of tiny air sacs.

Each adult lung is about the size of a football. When they are healthy, your lungs feel a little like a sponge and are pinkish gray. When lungs are damaged by smoking, they can appear gray or have black spots on them.

One disease that is very common in children involves the lungs. Asthma narrows the breathing tubes, making it harder to breathe. As many as nine million kids in the United States have asthma.

You probably already know that your lungs are important when you swim. But you may not know this—your lungs are the only part of your body that can float on water.

1. Where are your lungs located? _____

2. What is the type of air that your lungs remove from your body? _____
What is the type of air that your lungs put into your blood cells? _____

3. What is your trachea? _____

4. What do lungs look like when they've been damaged from smoking?

5. Why does asthma make it hard for people to breathe?

Your Digestive System

by Cynthia Sherwood

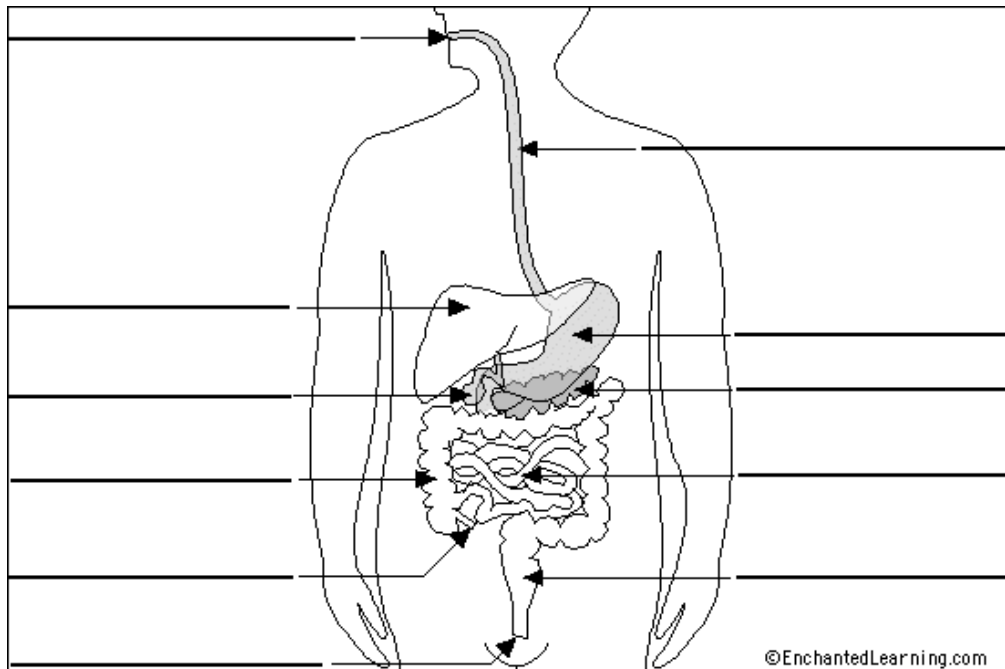
This may seem like a trick question, but are you bigger than a tennis court? The answer is no, of course not! But think about this fact—your intestines have a surface area about the size of a tennis court all coiled up inside your body. They fit inside of your because your large and small intestines are like a giant slinky that scrunches up.

These organs have a giant role to play too. They are part of your digestive system. That means they break down the food you eat. Digestion begins in the mouth when you chew and swallow. From there, your food travels through the esophagus (ee-saw-fuh-gus) which connects the bottom of your throat to your stomach. Your stomach mixes up food with liquids and then dumps it all into the small intestine.

The small intestine is a very long narrow tube. Its spongy walls soak up nutrients from your food. Then those nutrients flow into your bloodstream to be carried off to other parts of your body. Some nutrients get stored until you need them and others are used right away for all the different things your body needs to work well.

Your body cannot use every single bit of the food you eat. There will always be some that needs to be changed into waste by the larger intestine. From the small intestine, leftover food gets pushed into the large intestine where it is dried up and turned into feces or poop.

If you want to keep your digestive system healthy, you should be careful about what you eat. Healthy whole grains, fruits, and vegetables all pass through your digestive system quickly and easily. They also contain fiber, which is a nutrient that helps in digestion. Your body has a harder time digesting fatty foods, so be careful how much is in your diet.



anus
liver

appendix
mouth

esophagus
pancreas
stomach

gall bladder
rectum

large intestine
small intestine

1. What is the purpose of your body's digestive system?

- A. to help your blood move through the body**
- B. to help you breathe**
- C. to help your body make food**
- D. to help your body break down food**

2. After you swallow your food, what does it travel through to get to your stomach?

3. Which organ takes nutrients from your food and puts it into your blood stream?

- A. stomach**
- B. esophagus**
- C. small intestine**
- D. large intestine**

4. Place these events in the correct order from beginning to end. Number 1-5

_____ food ends up in the small intestine

_____ food is chewed up

_____ food is in the large intestine

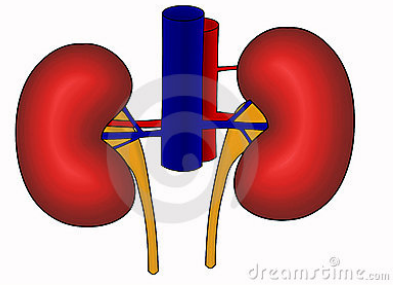
_____ food travels through the esophagus

_____ food waste leaves the body

5. What is fiber?

Your Kidneys

by Cynthia Sherwood



Many kids have moms or dads who clean up after them. But, did you know that you have body parts that clean up after you too? Your two kidneys are very important organs in your body. Without them, you could not survive. They clean your blood and get rid of waste that your body produces.

To find your kidneys, slide your hands up from your hips until you feel your ribs. Then put your thumbs on your back. You cannot feel them, but that is where your kidneys are located. Each is about the size of your fist and has a funny shape. Kidney beans were named after them because they have the same shape and color.

The main job of the kidneys is to filter your blood for anything your body does not need. The kidneys move waste into urine which is then sent to your bladder. The bladder is like a storage pouch that can expand. When your bladder starts getting full, you feel the urge to go to the bathroom.

Sometimes the kidneys do not work like they should. People usually can survive on only one kidney as long as it's healthy. If only one kidney becomes very sick, a doctor can remove it. Other people need a special machine to clean the blood. This is called dialysis (die-al-li-sis). Sometime, people need a kidney transplant. That is when another person donates a kidney to be put in the sick person's body.

Keeping your kidneys healthy is easy for most kids. Just pay attention to when you feel thirsty and drink up!

1. Where are your kidneys located? _____

2. How big is a kidney? _____

3. How do your kidneys help your blood? _____

4. Which is the best synonym for the word filter?

- A. clean
- B. create
- C. blood
- D. fill

5. What is your bladder? _____

6. What three things can doctors do for a person whose kidneys do not work properly?

1. _____
2. _____
3. _____