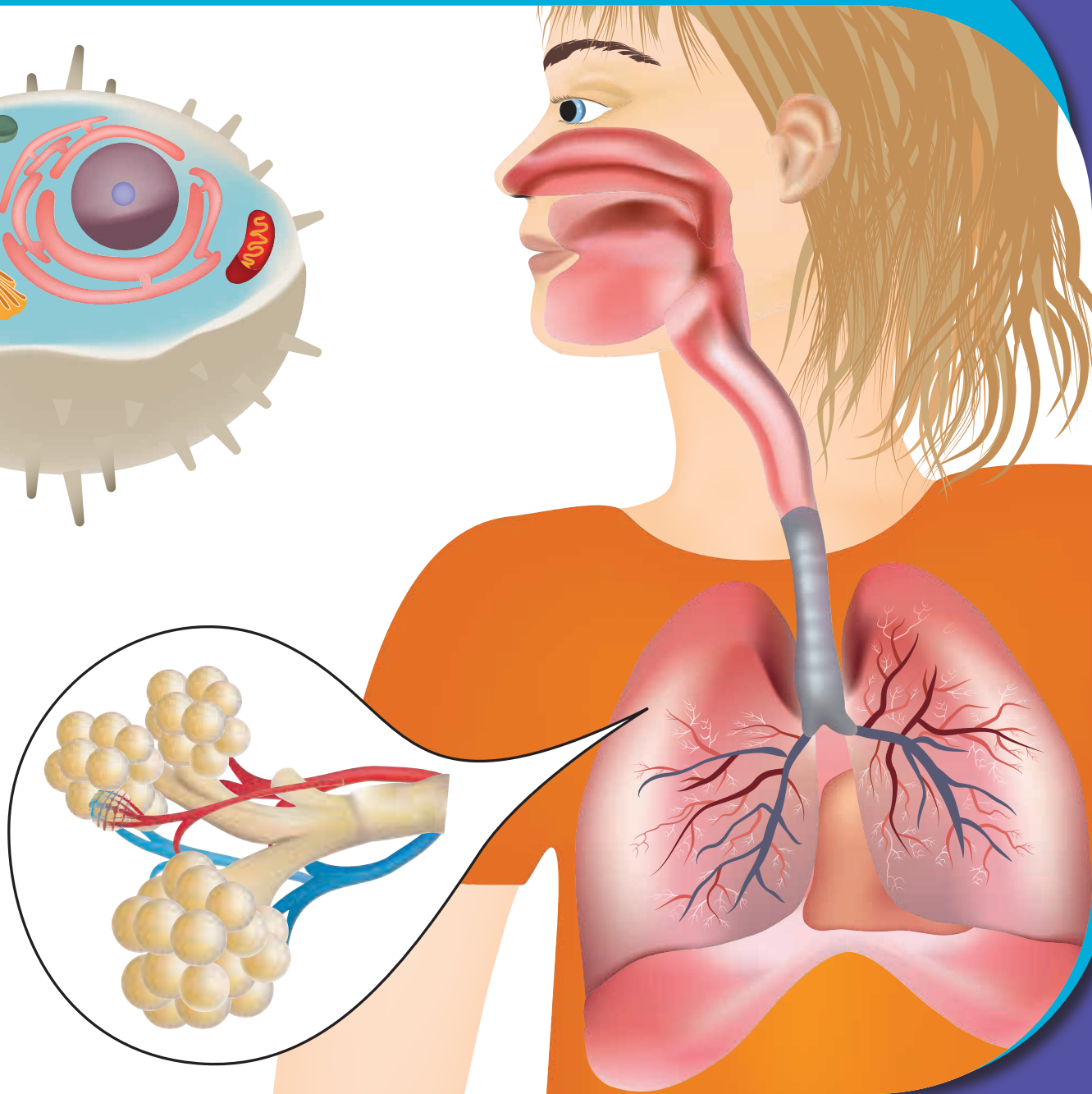
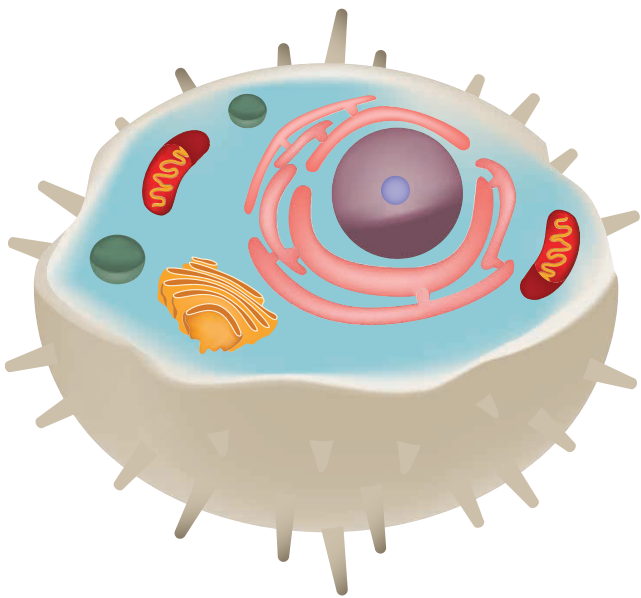


# Hooray for Human Anatomy

5<sup>th</sup>  
Grade



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## Hurray for Human Anatomy

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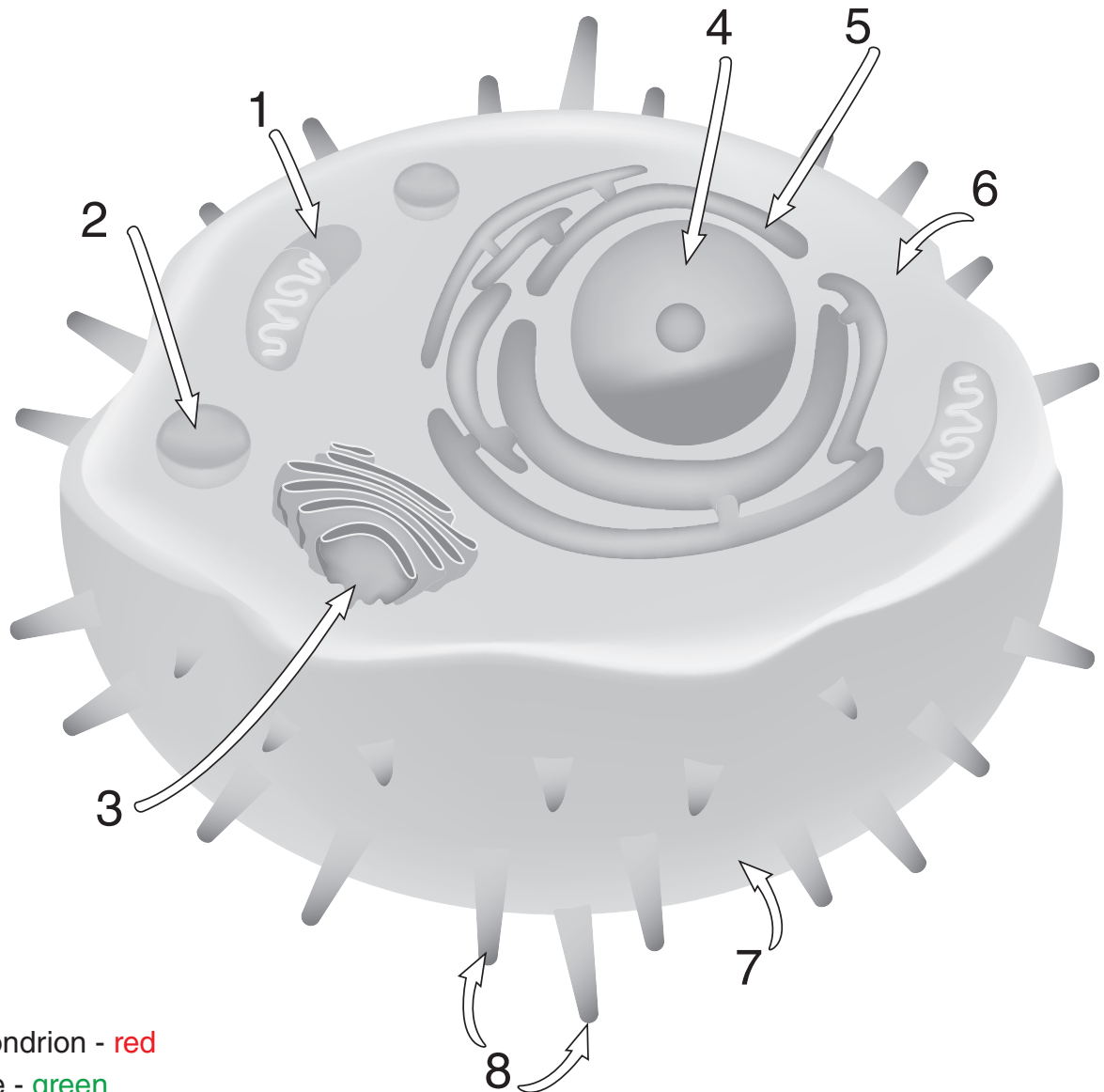
*\* Has an Answer Sheet*

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# Color-by-Number Cell

The cell is the “building block of life.” It is a basic structural, functional, and biological unit of all organisms.

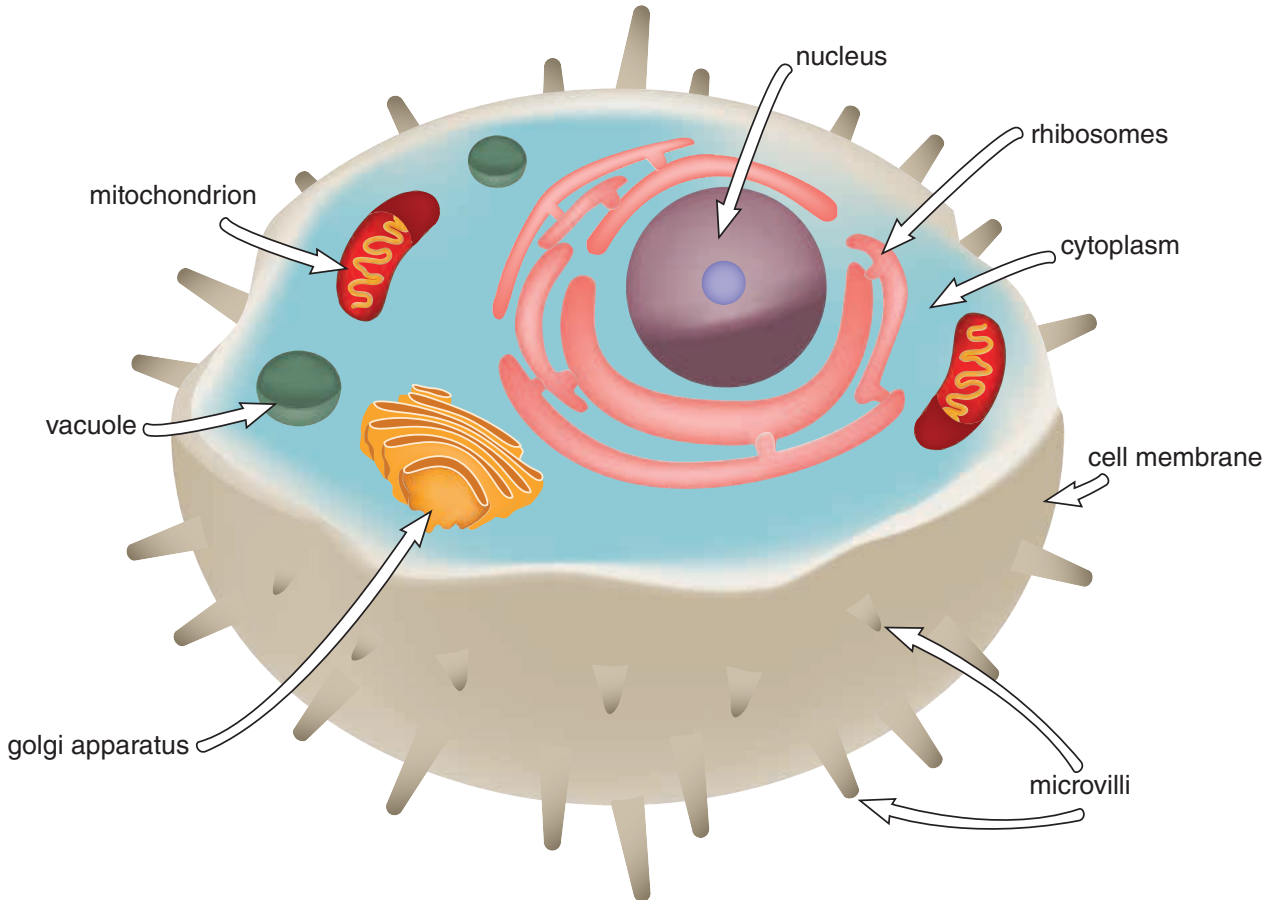
**Directions:** Color in each part of the cell according to the color-by-number guide.



1. mitochondrion - red
2. vacuole - green
3. golgi apparatus - orange
4. nucleus - purple
5. ribosomes - pink
6. cytoplasm - light blue
7. cell membrane - yellow
8. microvilli - light brown

# Define Cell Parts

**Directions:** Have an adult help you use a computer to research these parts of a cell. Write what each part of a cell does.



mitochondrion \_\_\_\_\_

vacuole \_\_\_\_\_

golgi apparatus \_\_\_\_\_

nucleus \_\_\_\_\_

ribosomes \_\_\_\_\_

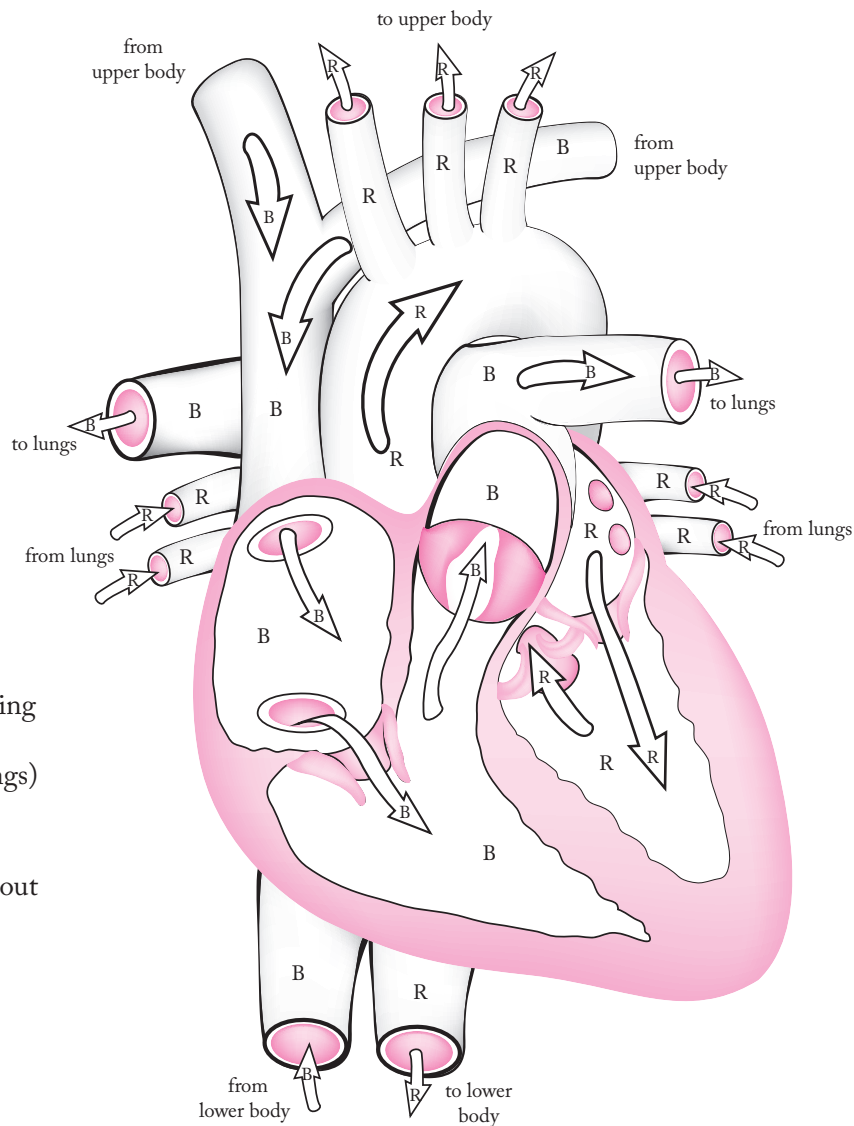
cytoplasm \_\_\_\_\_

cell membrane \_\_\_\_\_

microvilli \_\_\_\_\_

# How does blood flow through the heart?

**Directions:** Check out the diagram below that shows how blood circulates around the heart. Color in the veins and arteries the correct color to give yourself a better idea of what happens when your heart pumps blood.



**R=red**  
(blood carrying oxygen from the lungs)

**B=blue**  
(blood without oxygen)

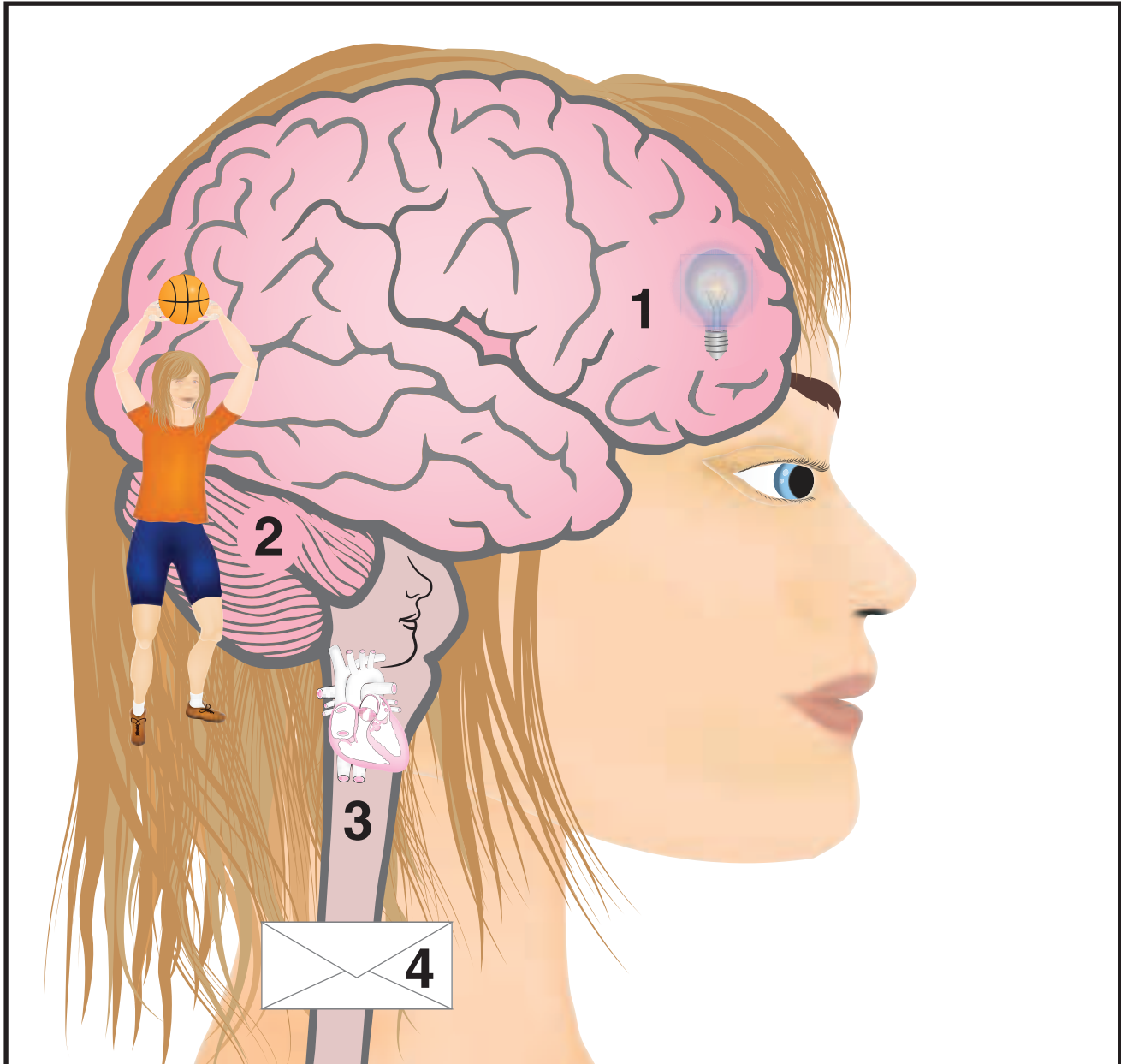
**Extra Activity:** Put your pointer finger and middle finger on the vein on the right side of your neck, right under your jaw bone. Find your pulse. Set a stop watch for 1 minute, and count how many times your heart beats. Write that number down. \_\_\_\_\_

Now, run in place for one minute. When you are done, find your pulse, set the stop watch for 1 minute, and count how many times your heart beats now. Write that number down. \_\_\_\_\_

Was there a difference between the two times? \_\_\_\_\_

Why? \_\_\_\_\_

# Brainiac



**Directions:** Use the clues in the picture to figure out what the different parts of the brain do. Match the part of the brain to the definition.

- |                |   |
|----------------|---|
| 1. cerebrum    | a. a bundle of nerves that sends messages to your brain       |
| 2. cerebellum  | b. the thinking part of the brain                             |
| 3. brain stem  | c. controls balance, movement, and coordination               |
| 4. spinal cord | d. keeps you breathing, digesting food, and blood circulating |

# What happens when you eat?

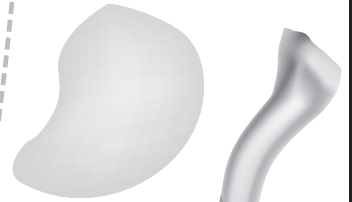
**Directions:** Color in the different parts of the digestive system, cut them out, and glue them in the right place on the body. (hints: Start at the top. After the tongue, connect the pieces as you go. Glue the small intestines under the large intestines.)



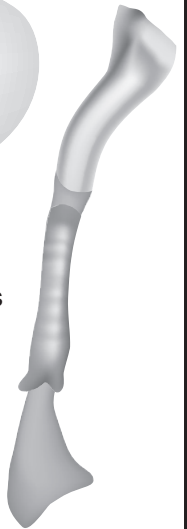
nasal and mouth cavity



stomach



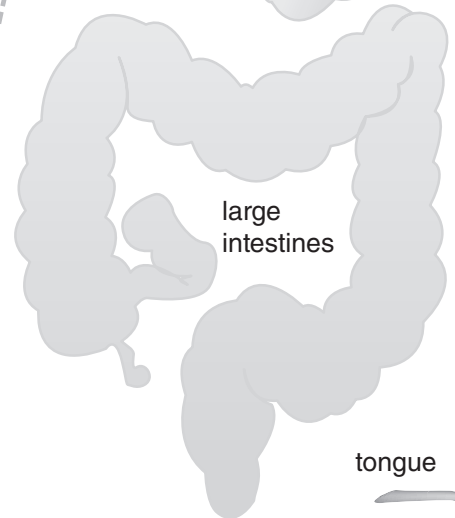
esophagus



small intestines



large intestines



tongue



# Your Respiratory System

**Directions:** Look at the diagram. Read about what each part of the respiratory system does. Label each part of the respiratory system on the diagram.

**nose** – contains two nostrils which brings air in and out of the body

**answer:** \_\_\_\_\_

**trachea or windpipe** – a tube that connects the upper respiratory system to the lungs

**answer:** \_\_\_\_\_

**lungs** – the main part of the respiratory system; it puts oxygen into the bloodstream

**answer:** \_\_\_\_\_

**mouth** – can be used to suck in or expel air

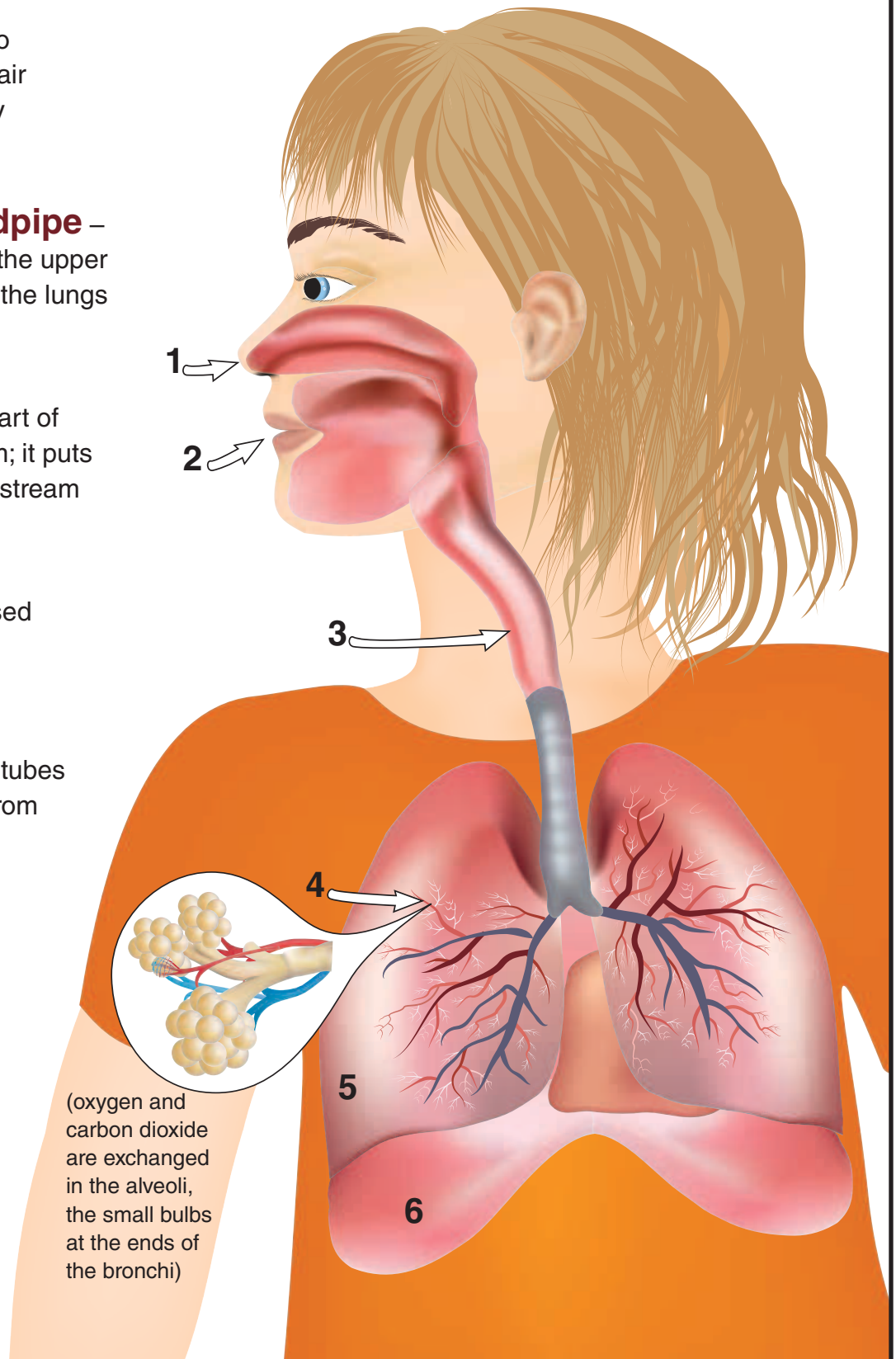
**answer:** \_\_\_\_\_

**bronchi** – smaller tubes that bring air to and from the lungs

**answer:** \_\_\_\_\_

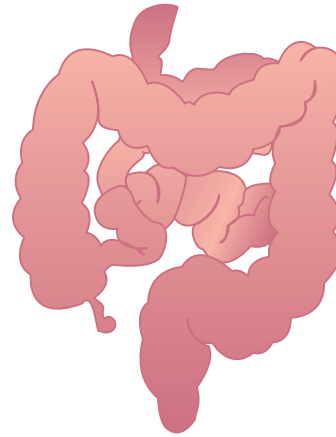
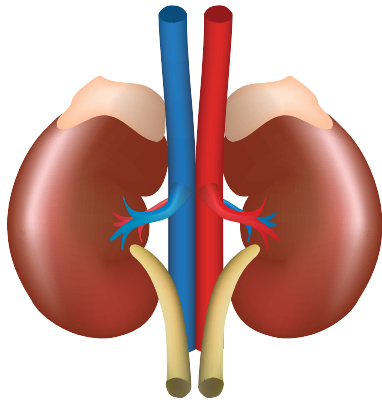
**diaphragm** – muscle that moves up and down to help expand your lungs

**answer:** \_\_\_\_\_



# The Body's Filtration System: Kidneys and Intestines

**Directions:** Cut out each item from the bottom of the page. Each one describes a function of either the kidney or the intestines. Paste each one in the correct column.



Pushes food through to the anus

Absorbs potassium

Absorbs nutrients

Regulates the body's pH balance

Cleans out the blood

Absorbs sodium

You can live with only one of these organs

Absorbs calcium

Lined with mucus

The waste from this organ turns into urine

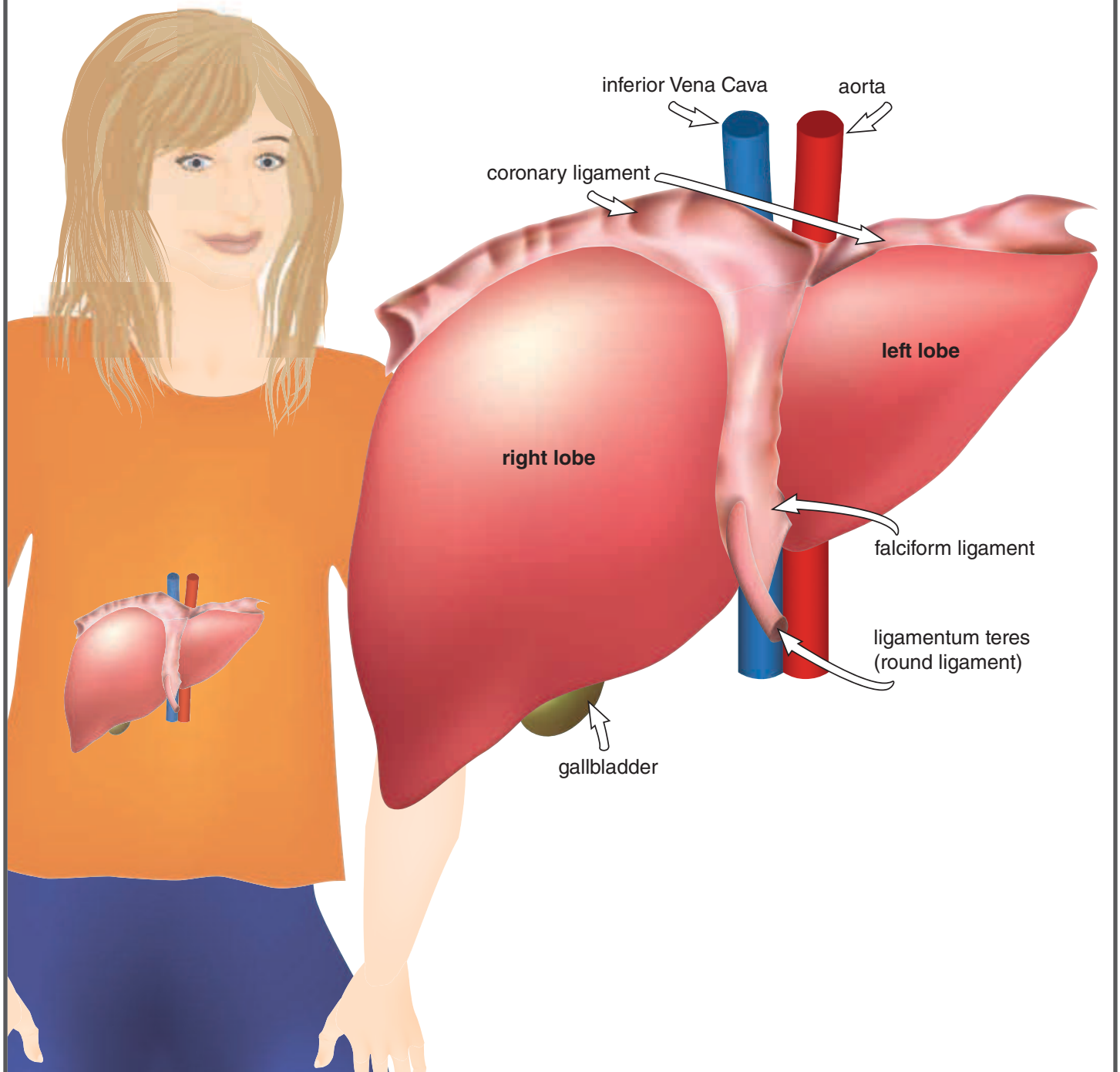
Breaks down food



# Where does the liver go?

The liver is made up of very dense cells. It's designed to filter the blood before it gets passed to the rest of the body. The main function is to detoxify the blood. It clears up chemicals the body can't take. The second function is to create proteins that help blood clot.

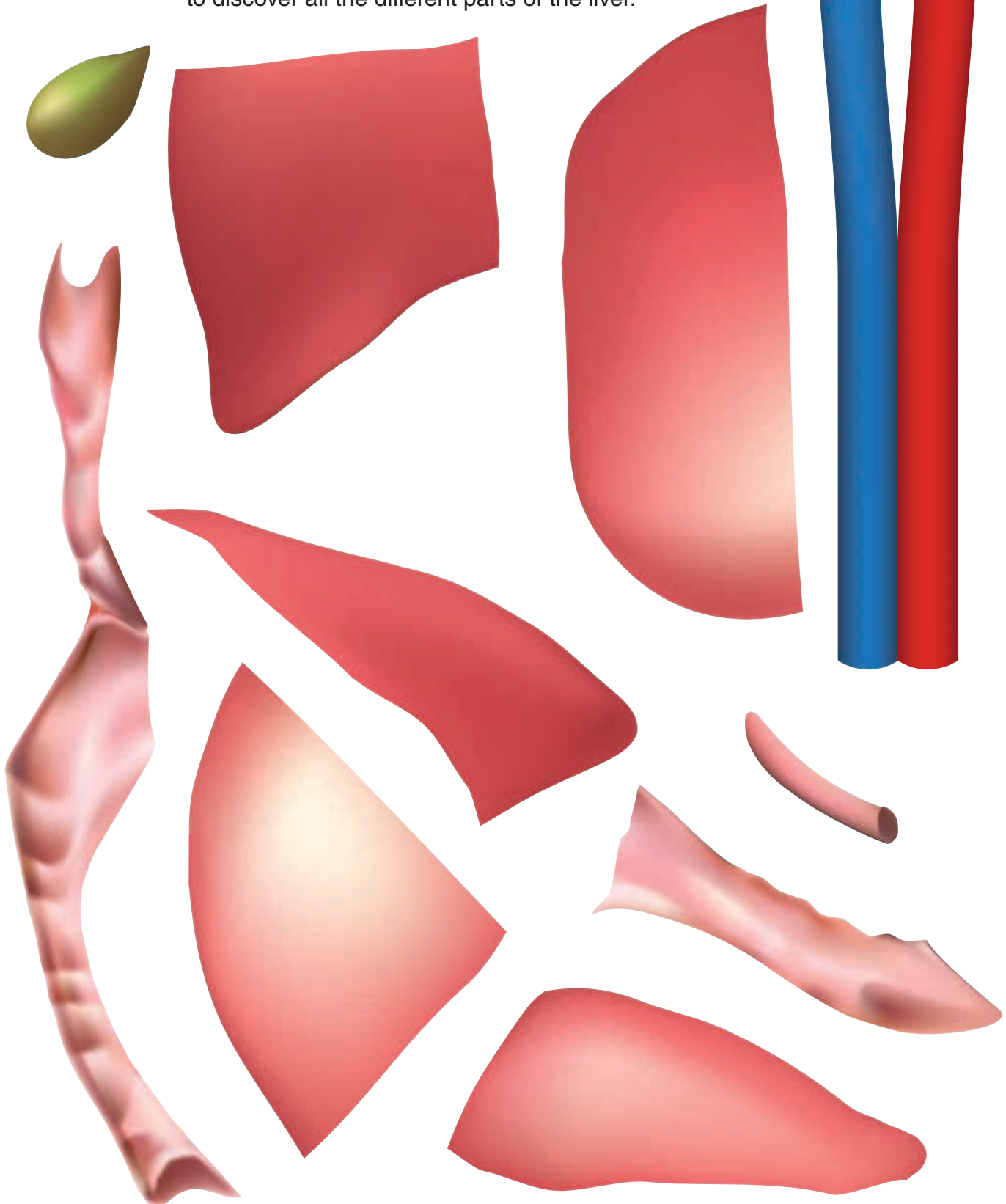
**Directions:** Use this picture as a reference for the puzzle on the next page.



# Where does the liver go?

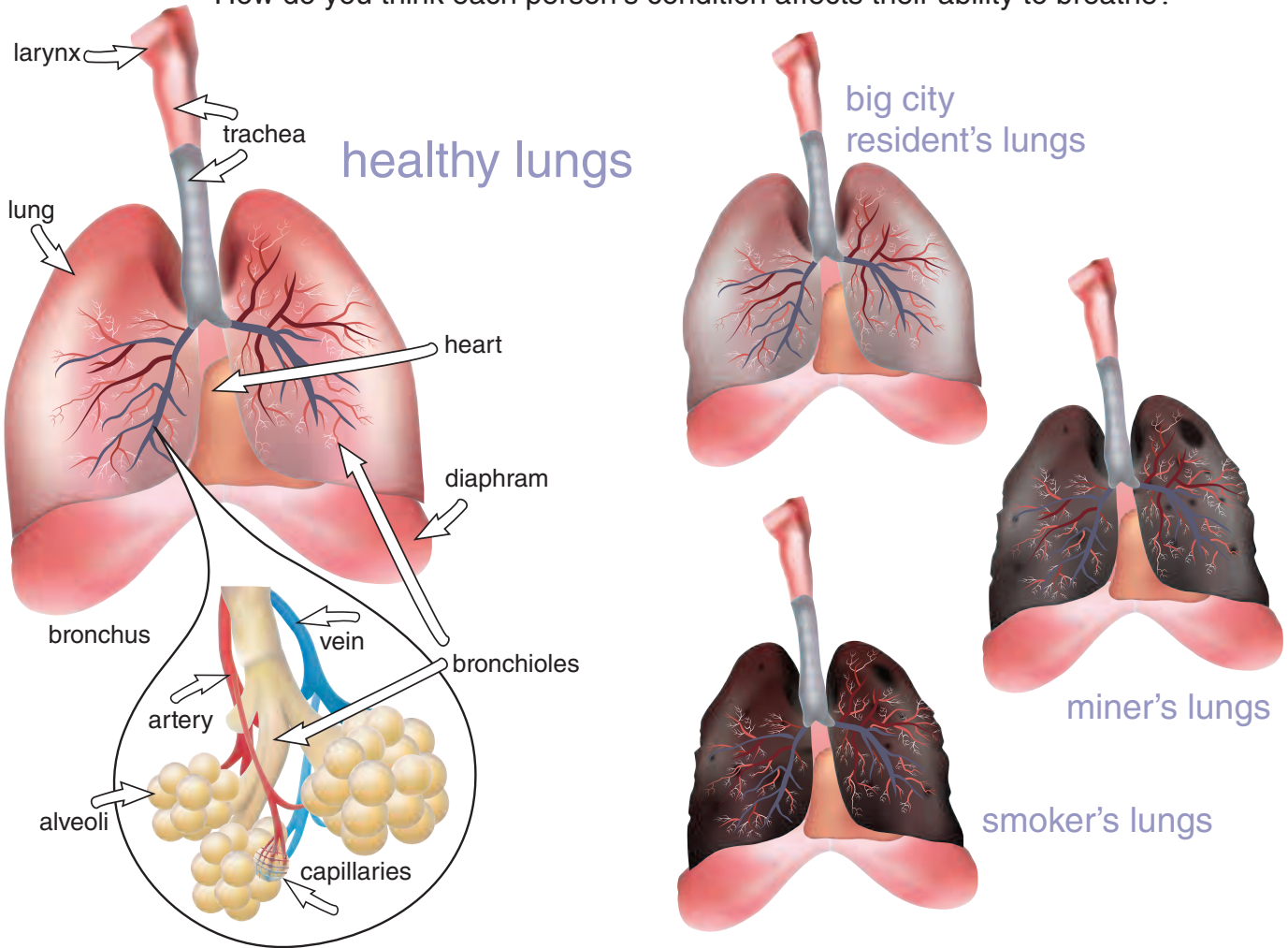


**Directions:** Cut out all the puzzle pieces below. Fit them together to discover all the different parts of the liver.



# Are your lungs healthy?

**Directions:** Compare the healthy pair of lungs to the other types of lungs.  
How do you think each person's condition affects their ability to breathe?



**Word Scramble!** Use the diagram above to unscramble these names of lung parts.

1. vielaol \_\_\_\_\_

5. tchraae \_\_\_\_\_

2. gnul \_\_\_\_\_

6. chusbron \_\_\_\_\_

3. terary \_\_\_\_\_

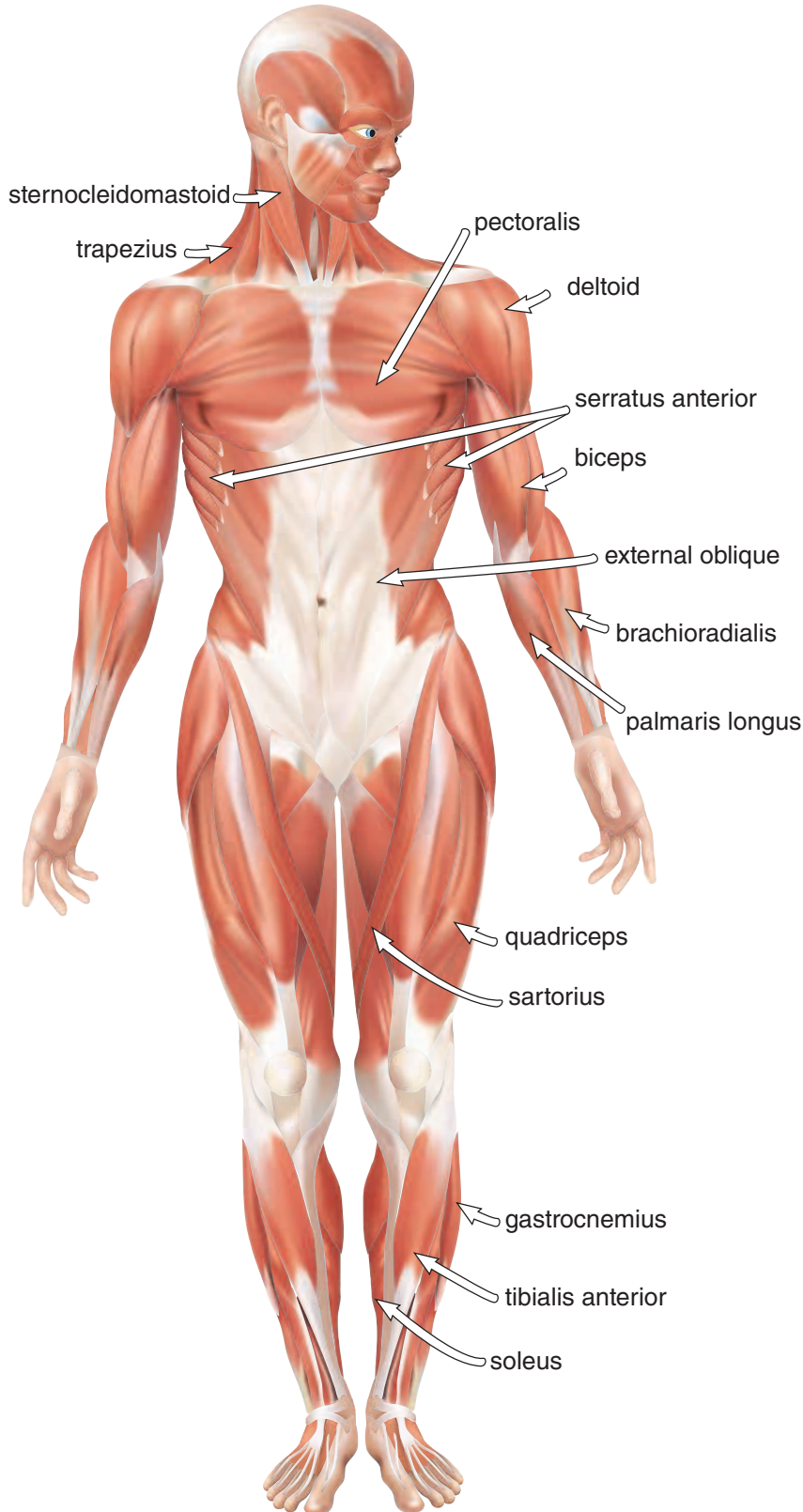
7. brchionleo \_\_\_\_\_

4. evin \_\_\_\_\_

8. pillapciesa \_\_\_\_\_

# How many muscles do you have?

**Answer:** You have over 600 muscles in your body! A word search with all of them would be too big, but you can try this word search with 14 muscles.



S A R T O R I U S T O D A  
D I Q J G V Z J E F H E K  
Q V U M C X O P R S J L G  
E D F G Z S D F R K D T P  
X N B I C E P S A M N O B  
T S D F L S E E T L W I P  
E T L K D F S K U Q Z D M  
R E L S O L E U S G D A P  
N R G G F R H K A S K J A  
A N S D H K F S N F I E L  
L O S H D F S H T H E I M  
O C A Q D H A S E W I N A  
B L W Z U X N E R E Y U R  
L E S Z D A J S I I Y U I  
I I W Y F X D M O L E V S  
Q D X M K L R R R F L G L  
U O X M N C U R I P A E O  
E M X C S H J W A C F G N  
Z A X C T P L J I N E H G  
Y S K N I V C O W V E P U  
V T S H B F H S E C K B S  
X O A S I J F H E U C O N  
Z I C N A E S H F E H L B  
O D S D L J E H U H J C R  
E I U C I H W E J Z C X A  
Z M K S S E U D J K S D C  
M N C J A H E U E Y C J H  
Z M X C N N D E E H U D I  
W P E C T O R A L I S K O  
A K S D E R D F I U J X R  
Z N C H R H A U S H J C A  
O L K S I E H P N C K D D  
A M Z N O H D Y E G R U I  
K S N C R Z M X N Z H E A  
M Z N X H B C K S W I P L  
M N Q O E D Y U F O H U I  
G A S T R O C N E M I U S

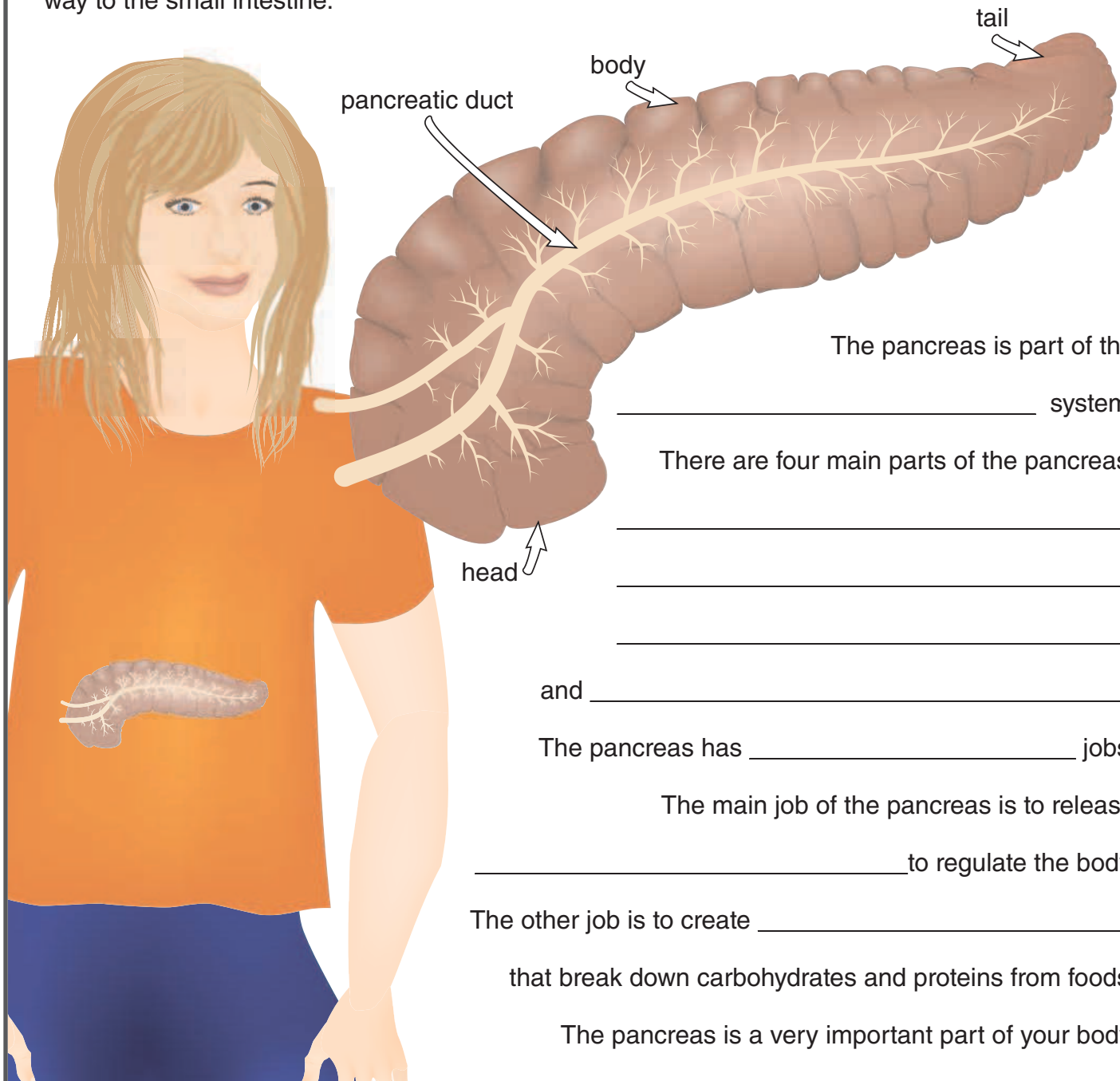
# What does the pancreas do?

**Directions:** Study the picture, and read the information below.  
Use the facts to fill in the paragraph below about your pancreas.

The endocrine system is a network of glands that release different hormones to regulate the body.

The pancreas is a very unique organ. It is actually a part of two systems, as it does two jobs. The main function is to create hormones like insulin and glucagon.

It also creates digestive enzymes that break down carbohydrates and proteins from foods on the way to the small intestine.



The pancreas is part of the \_\_\_\_\_ system.

There are four main parts of the pancreas:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

and \_\_\_\_\_.

The pancreas has \_\_\_\_\_ jobs.

The main job of the pancreas is to release \_\_\_\_\_ to regulate the body.

The other job is to create \_\_\_\_\_ that break down carbohydrates and proteins from foods.

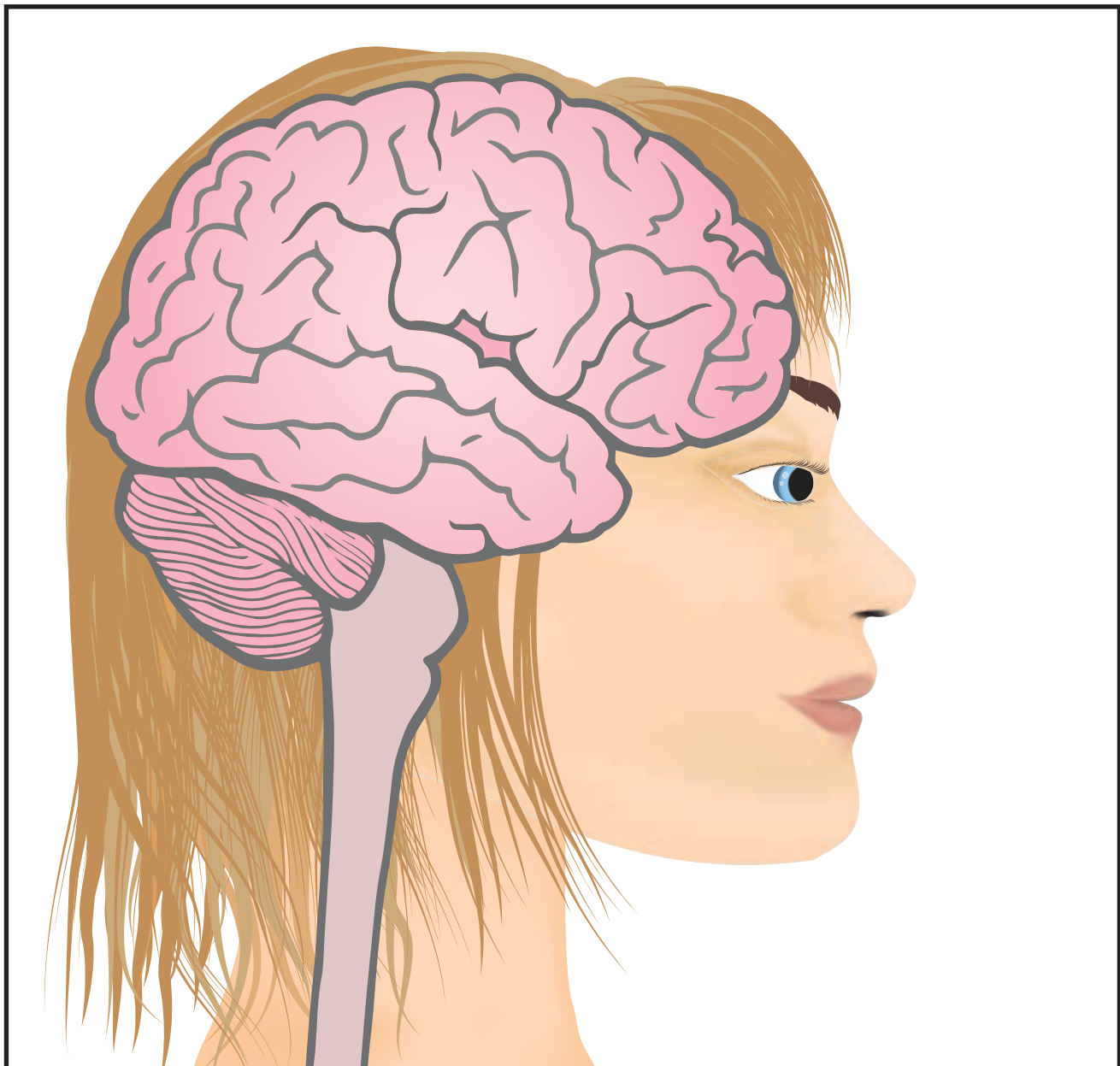
The pancreas is a very important part of your body.

# Your Body

**Directions:** Trace the outline of your body on a large piece of white butcher paper, or tape several pieces of white printer paper together. Lie down on the paper, with your head turned to one side, and have a friend or parent trace your body. Use the diagrams of the systems on the following pages to help you draw detailed pictures of all the systems on your body outline. Label each system on your body.

**Suggestion:** Some of the systems overlap each other. Draw the first system on the butcher paper, then take a piece of white paper, and tape the left side only down to the butcher paper. Now, you can draw the second system. It's like a flap book where you can pull up the paper and see the system underneath.

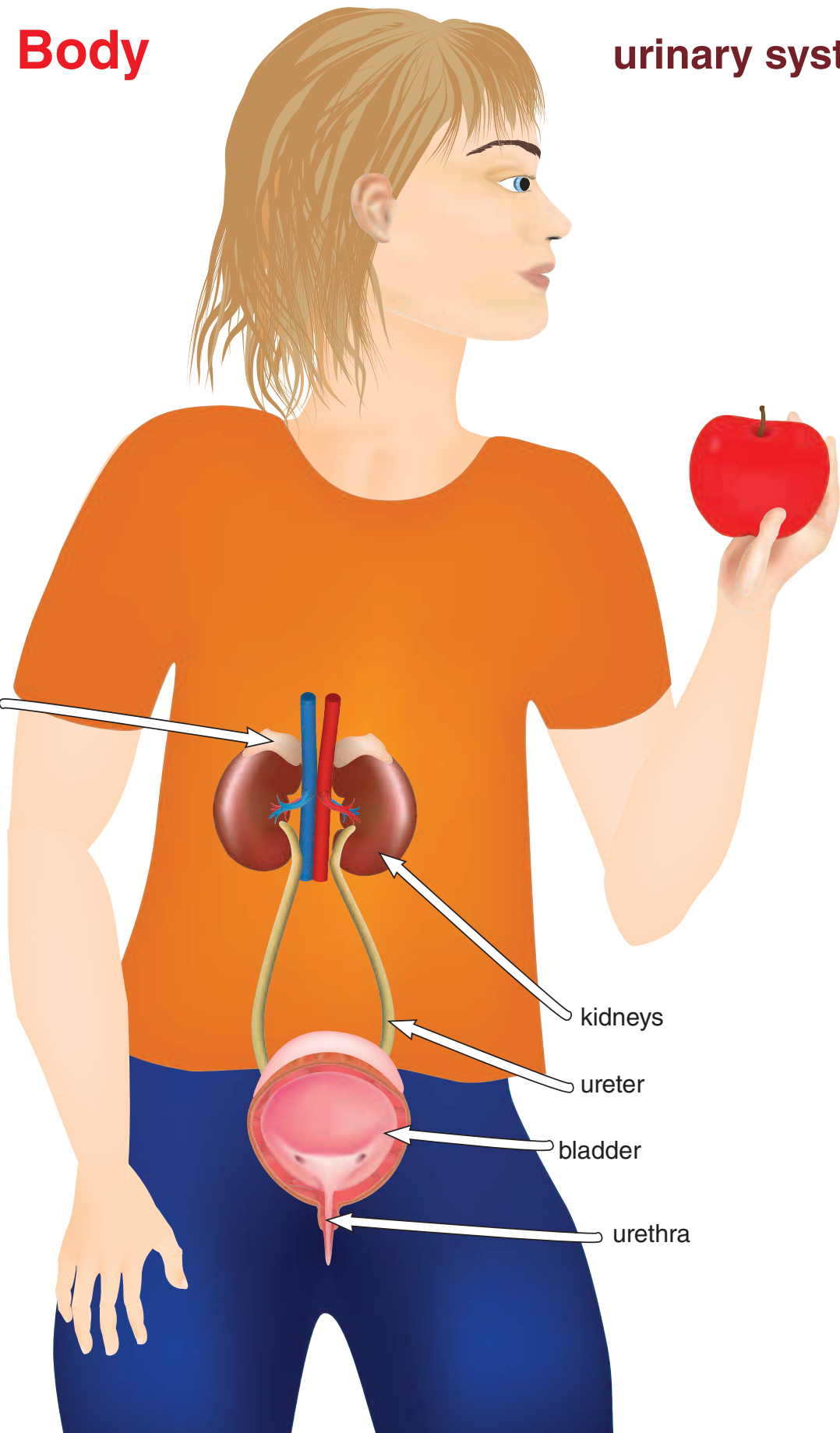
## Brain



# Your Body

# urinary system

adrenal gland



kidneys

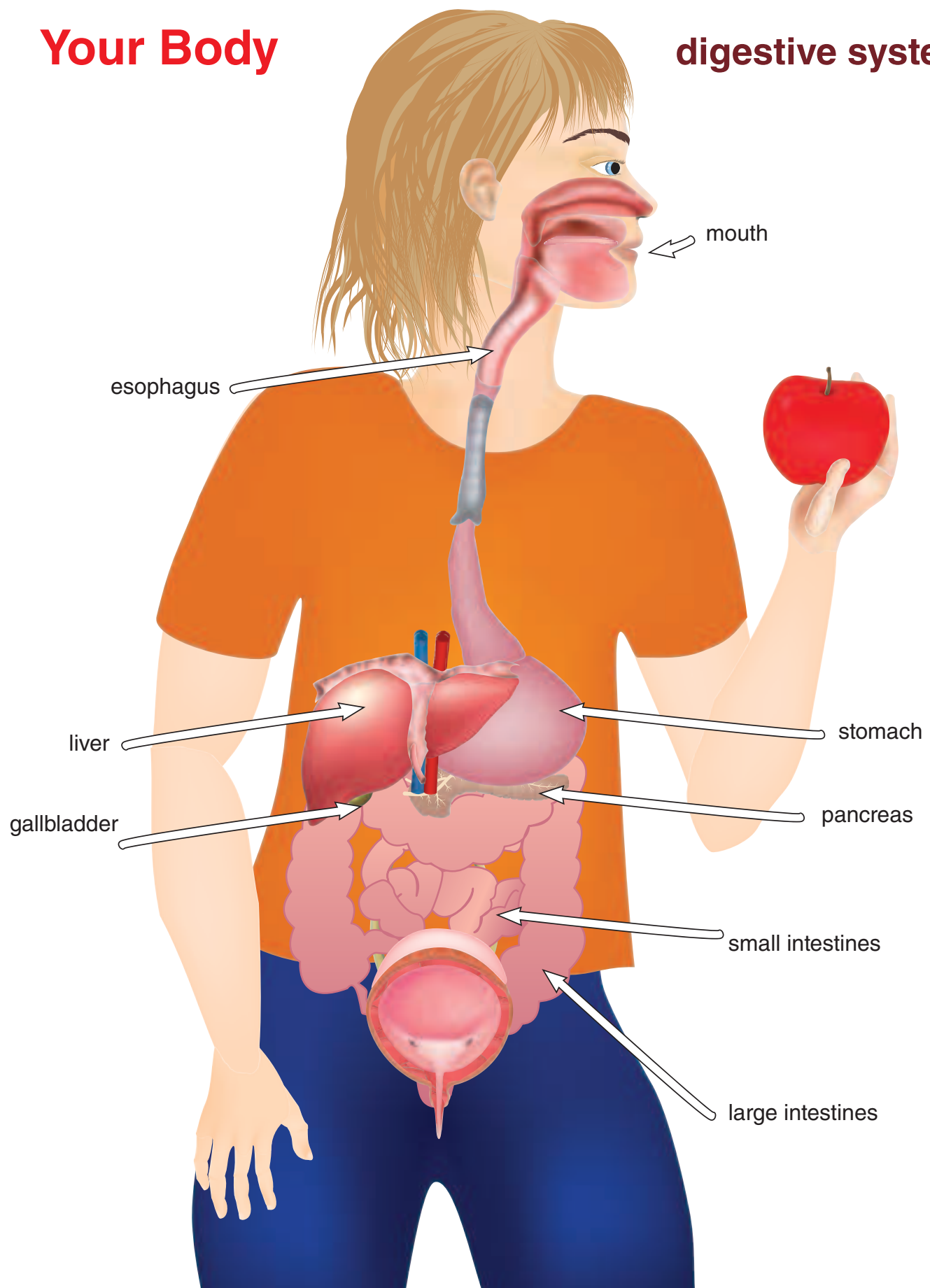
ureter

bladder

urethra

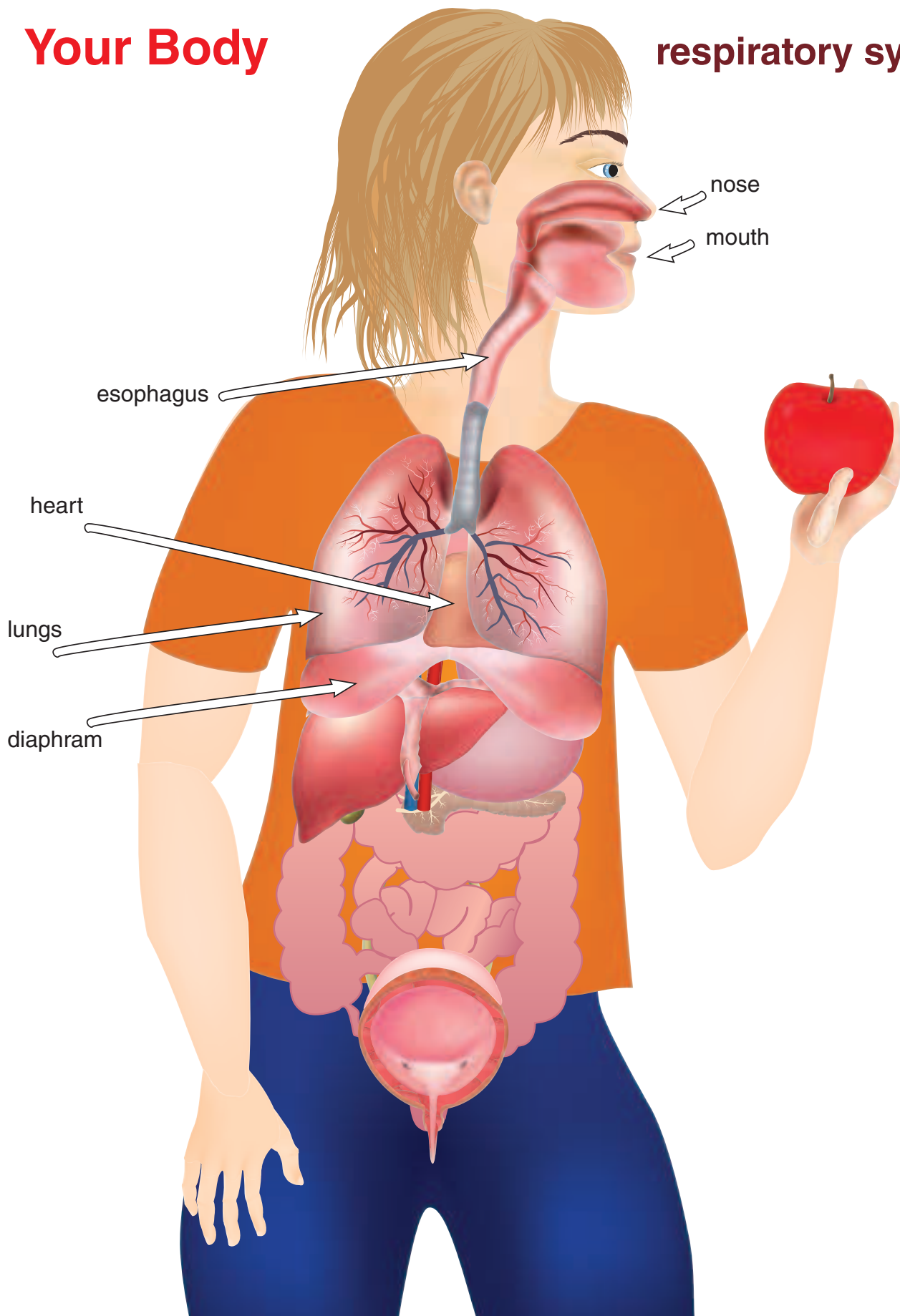
# Your Body

## digestive system



# Your Body

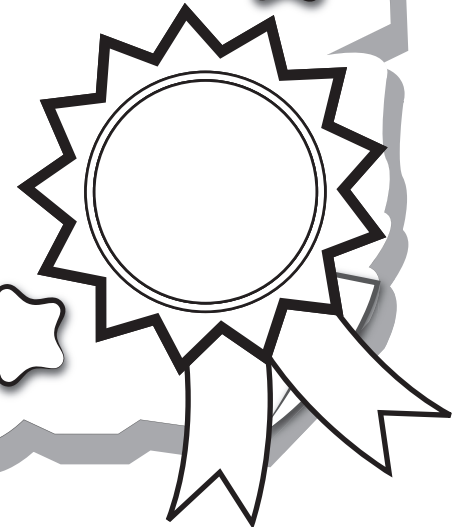
## respiratory system



Great job!

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# Answer Sheets

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## Hurray for Human Anatomy

Define Cell Parts

Brainiac

Your Respiratory System

The Body's Filtration System: Kidneys and Intestines

Are Your Lungs Healthy?

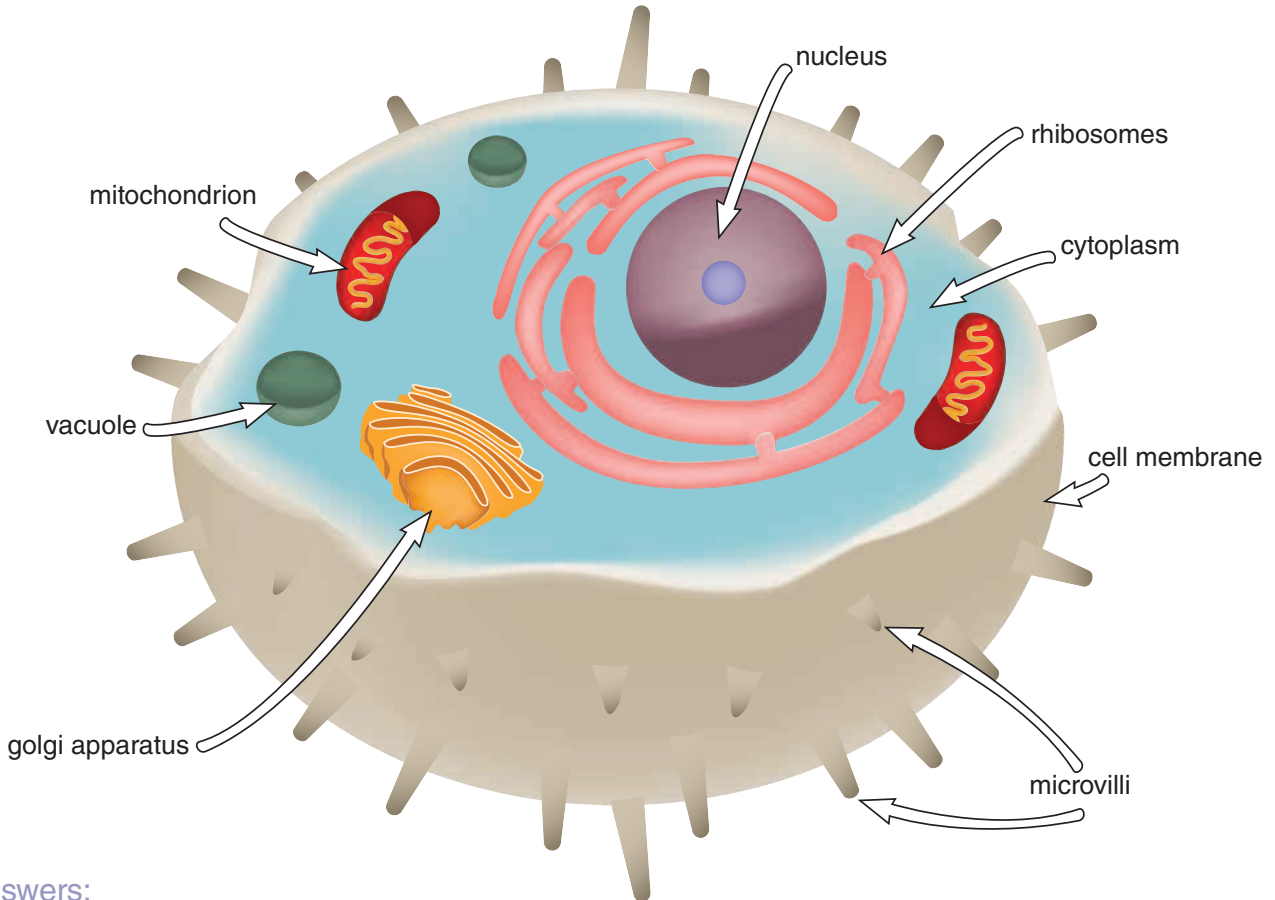
How Many Muscles do You Have?

What Does the Pancreas Do?

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# Define Cell Parts

**Directions:** Have an adult help you use a computer to research these parts of a cell. Write what each part of a cell does.



Answers:

mitochondrion provides energy for the cell

vacuole contains the waste

golgi apparatus packs protein

nucleus controls the cell

ribosomes synthesizes (transforms) protein

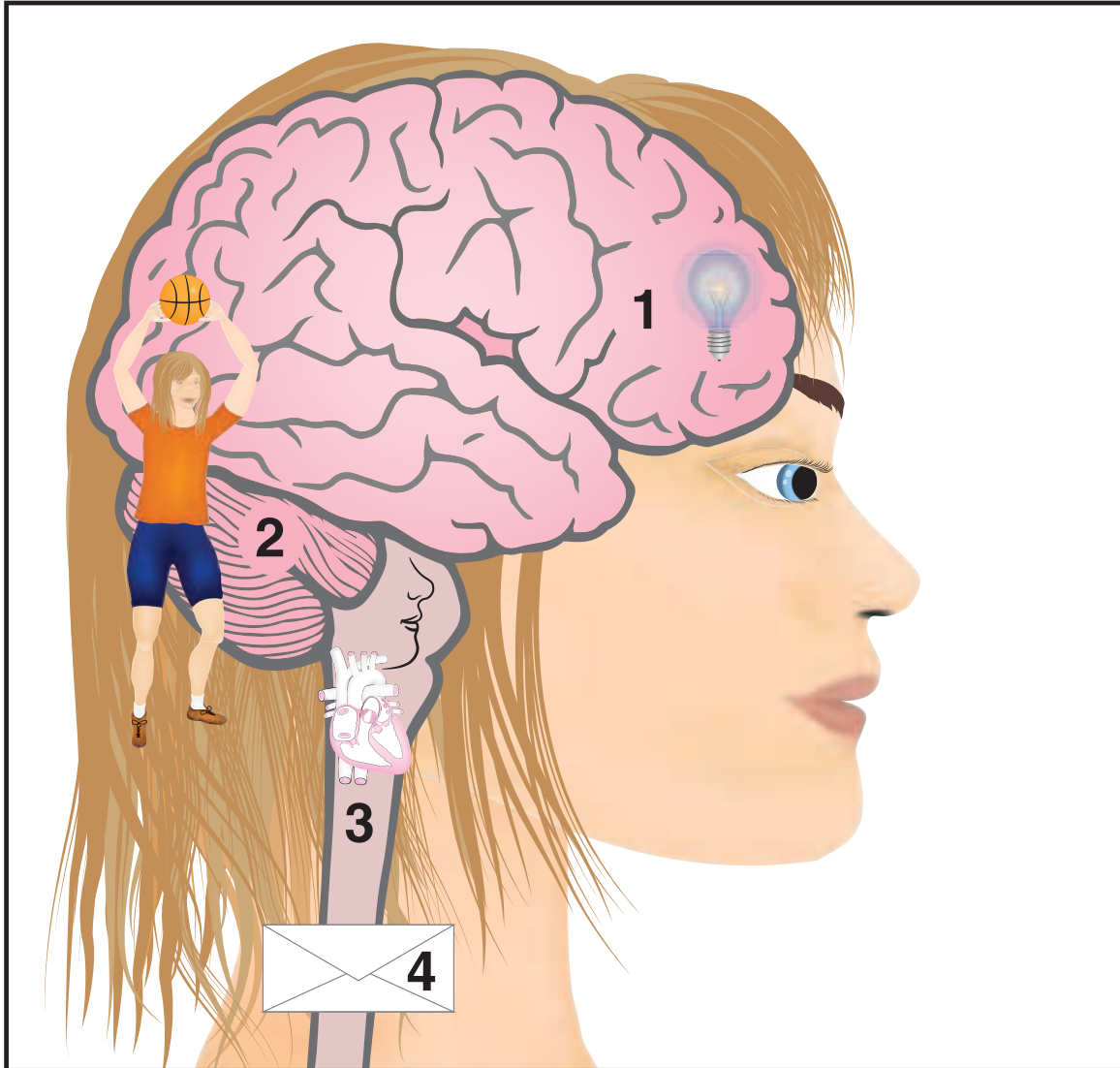
cytoplasm holds the cell's organelles in place

cell membrane separates the inside of the cell from the outside

microvilli involved in a wide variety of functions, including absorption and secretion

# Answer Sheet

## Brainiac



**Directions:** Use the clues in the picture to figure out what the different parts of the brain do. Match the part of the brain to the definition.

- |                |   |
|----------------|---|
| 1. cerebrum    | a. a bundle of nerves that sends messages to your brain       |
| 2. cerebellum  | b. the thinking part of the brain                             |
| 3. brain stem  | c. controls balance, movement, and coordination               |
| 4. spinal cord | d. keeps you breathing, digesting food, and blood circulating |

answers: 1b, 2c, 3d, 4a

# Answer Sheet

## Your Respiratory System

**Directions:** Look at the diagram. Read about what each part of the respiratory system does. Label each part of the respiratory system on the diagram.

**nose** – contains two nostrils which brings air in and out of the body

answer: 1

**trachea or windpipe** – a tube that connects the upper respiratory system to the lungs

answer: 3

**lungs** – the main part of the respiratory system; it puts oxygen into the bloodstream

answer: 5

**mouth** – can be used to suck in or expel air

answer: 2

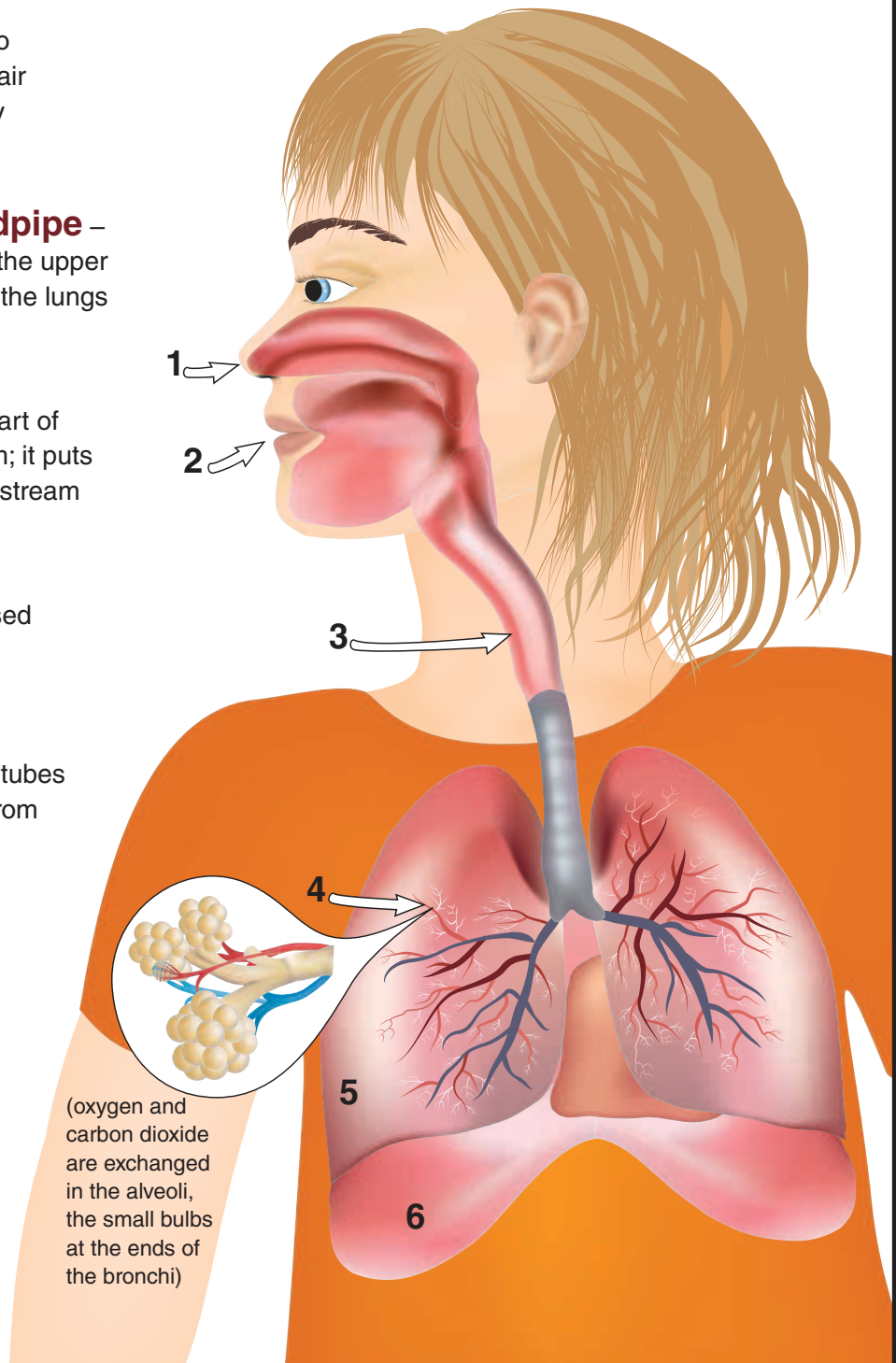
**bronchi** – smaller tubes that bring air to and from the lungs

answer: 4

**diaphragm** – muscle that moves up and down to help expand your lungs

answer: 6

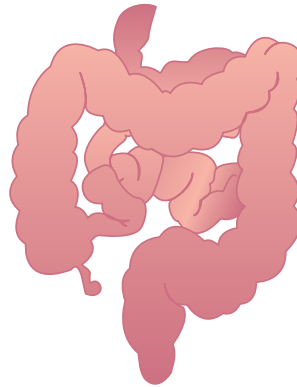
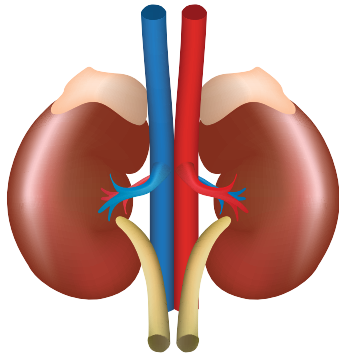
(oxygen and carbon dioxide are exchanged in the alveoli, the small bulbs at the ends of the bronchi)



# Answer Sheet

## The Body's Filtration System: Kidneys and Intestines

**Directions:** Cut out each item from the bottom of the page. Each one describes a function of either the kidney or the intestines. Paste each one in the correct column.



Absorbs sodium  
Absorbs potassium  
Absorbs calcium  
Regulates the body's pH balance  
Cleans out the blood  
The waste from this organ turns into urine  
You can live with only one of these organs

Pushes food through to the anus  
Absorbs nutrients  
Lined with mucus  
Breaks down food

Pushes food through to the anus

Absorbs potassium

Absorbs nutrients

Regulates the body's pH balance

Cleans out the blood

Absorbs sodium

You can live with only one of these organs

Absorbs calcium

Lined with mucus

The waste from this organ turns into urine

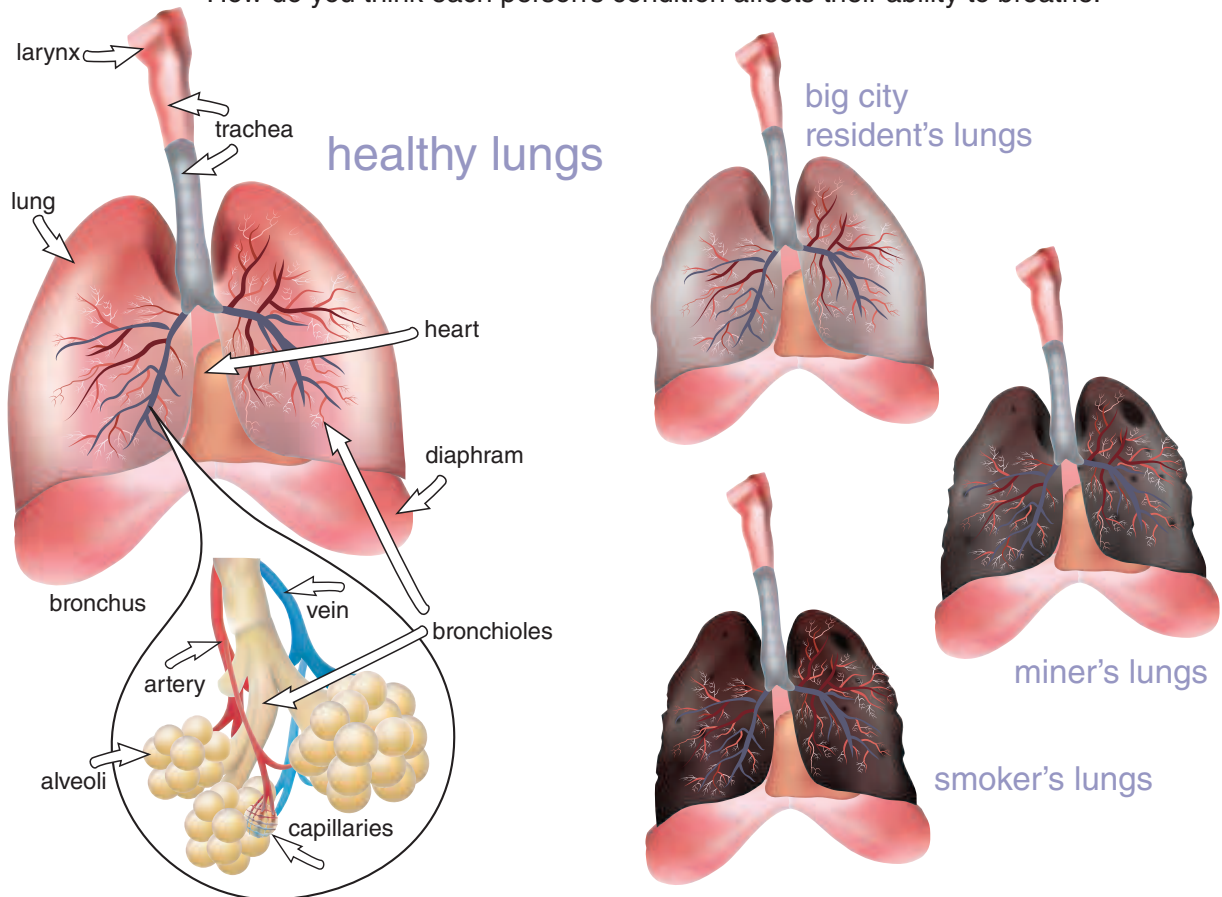
Breaks down food



# Answer Sheet

## Are your lungs healthy?

**Directions:** Compare the healthy pair of lungs to the other types of lungs. How do you think each person's condition affects their ability to breathe.



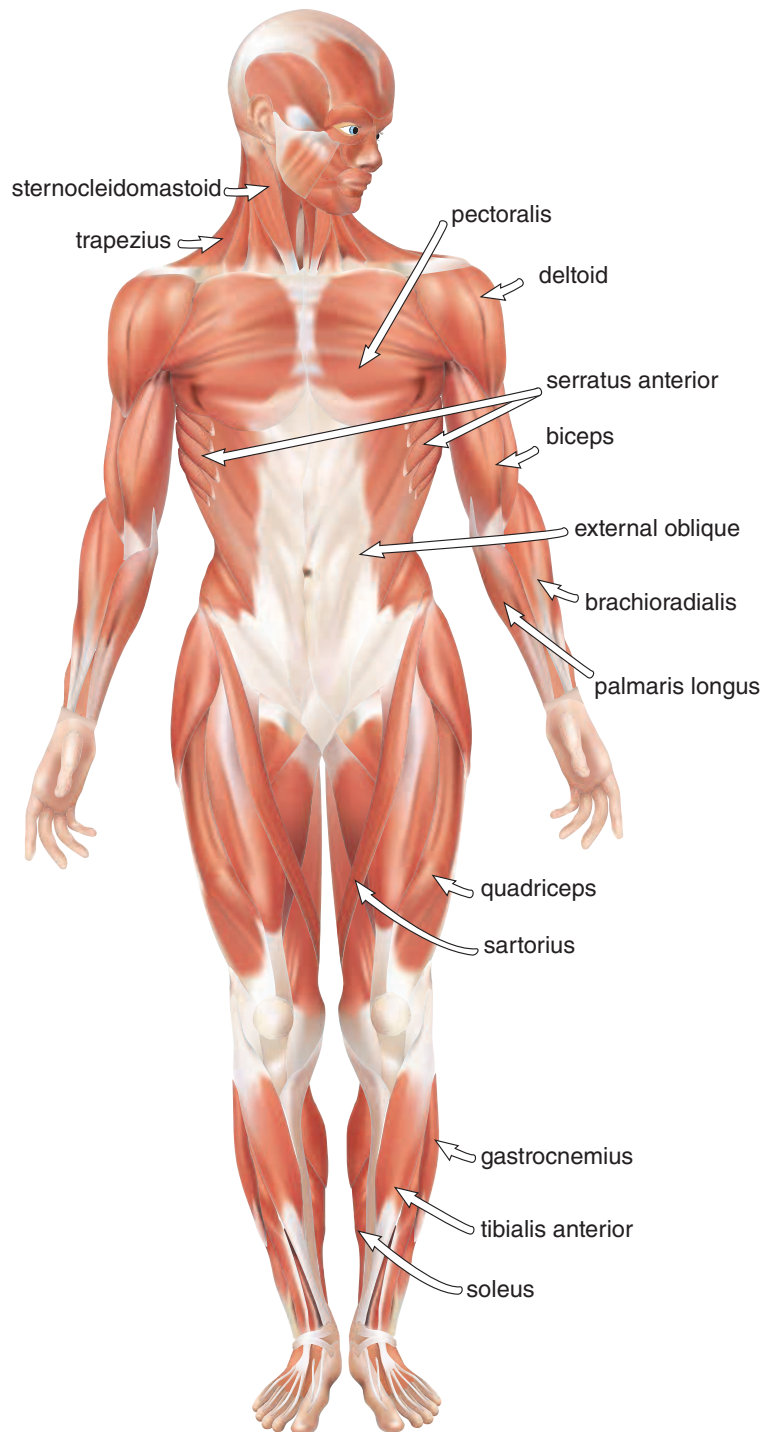
**Word Scramble!** Use the diagram above to unscramble these names of lung parts.

- |           |                |                |                    |
|-----------|----------------|----------------|--------------------|
| 1. viaol  | <u>alveoli</u> | 5. tchraae     | <u>trachea</u>     |
| 2. gnul   | <u>lung</u>    | 6. chusbron    | <u>bronus</u>      |
| 3. terary | <u>artery</u>  | 7. brchionleo  | <u>bronchioles</u> |
| 4. evin   | <u>vein</u>    | 8. pillapciesa | <u>capillaries</u> |

# Answer Sheet

## How many muscles do you have?

**Answer:** You have over 600 muscles in your body! A word search with all of them would be too big, but you can try this word search with 14 muscles.



S A R T O R I U S T O D A  
D I Q J G V Z J E F H E K  
Q V U M C X O P R S J L G  
E D F G Z S D F R K D T P  
X N B I C E P S A M N O B  
T S D F L S E E T L W I P  
E T L K D F S K U Q Z D M  
R E L S O L E U S G D A P  
N R G G F R H K A S K J A  
A N S D H K F S N F I E L  
L O S H D F S H T H E I M  
O C A Q D H A S E W I N A  
B L W Z U X N E R E Y U R  
L E S Z D A J S I I Y U I  
I I W Y F X D M O L E V S  
Q D X M K L R R R F L G L  
U O X M N C U R I P A E O  
E M X C S H J W A C F G N  
Z A X C T P L J I N E H G  
Y S K N I V C O W V E P U  
V T S H B F H S E C K B S  
X O A S I J F H E U C O N  
Z I C N A E S H F E H L B  
O D S D L J E H U H J C R  
E I U C I H W E J Z C X A  
Z M K S S E U D J K S D C  
M N C J A H E U E Y C J H  
Z M X C N N D E E H U D I  
W P E C T O R A L I S K O  
A K S D E R D F I U J X R  
Z N C H R H A U S H J C A  
O L K S I E H P N C K D D  
A M Z N O H D Y E G R U I  
K S N C R Z M X N Z H E A  
M Z N X H B C K S W I P L  
M N Q O E D Y U F O H U I  
G A S T R O C N E M I U S

# Answer Sheet

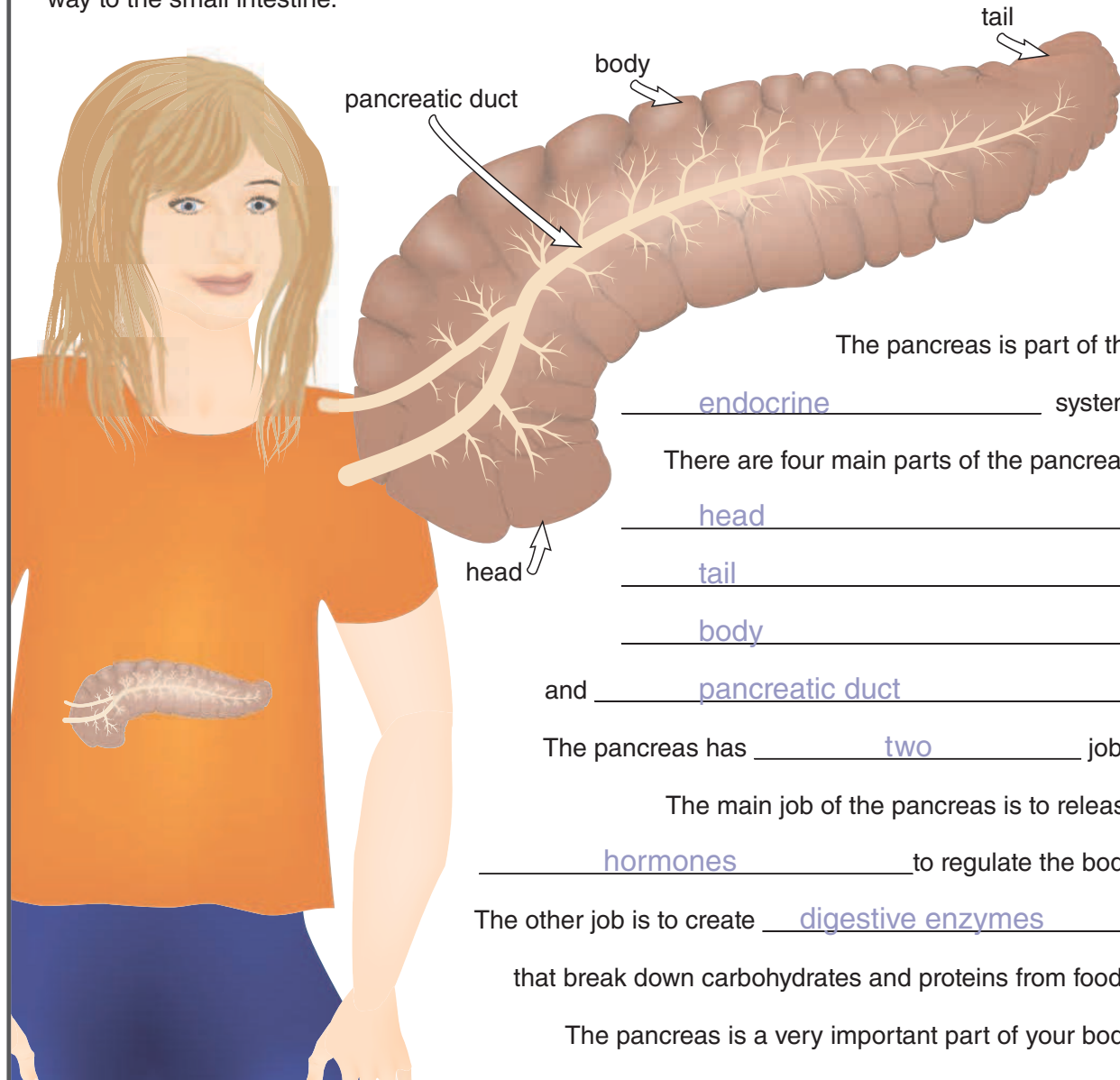
## What does the pancreas do?

**Directions:** Study the picture, and read the information below.  
Use the facts to fill in the paragraph below about your pancreas.

The endocrine system is a network of glands that release different hormones to regulate the body.

The pancreas is a very unique organ. It is actually a part of two systems, as it does two jobs. The main function is to create hormones like insulin and glucagon.

It also creates digestive enzymes that break down carbohydrates and proteins from foods on the way to the small intestine.



The pancreas is part of the

endocrine system.

There are four main parts of the pancreas:

head,

tail,

body,

and pancreatic duct.

The pancreas has two jobs.

The main job of the pancreas is to release

hormones to regulate the body.

The other job is to create digestive enzymes

that break down carbohydrates and proteins from foods.

The pancreas is a very important part of your body.