

Hooray for Human Anatomy

5th
Grade

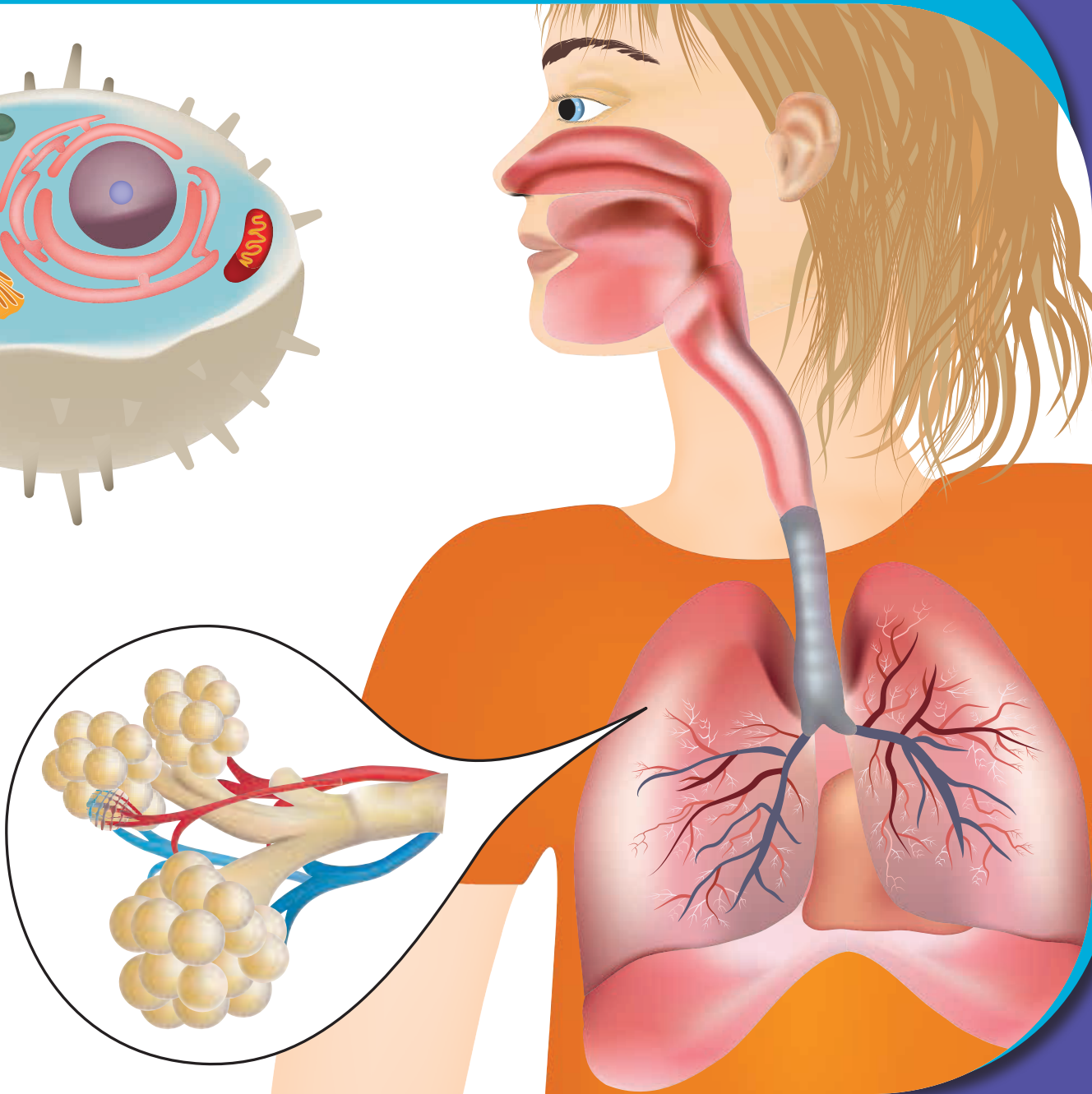
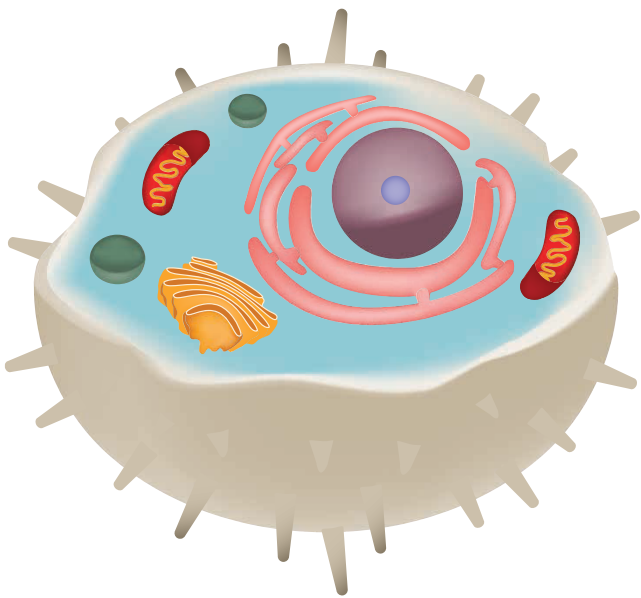


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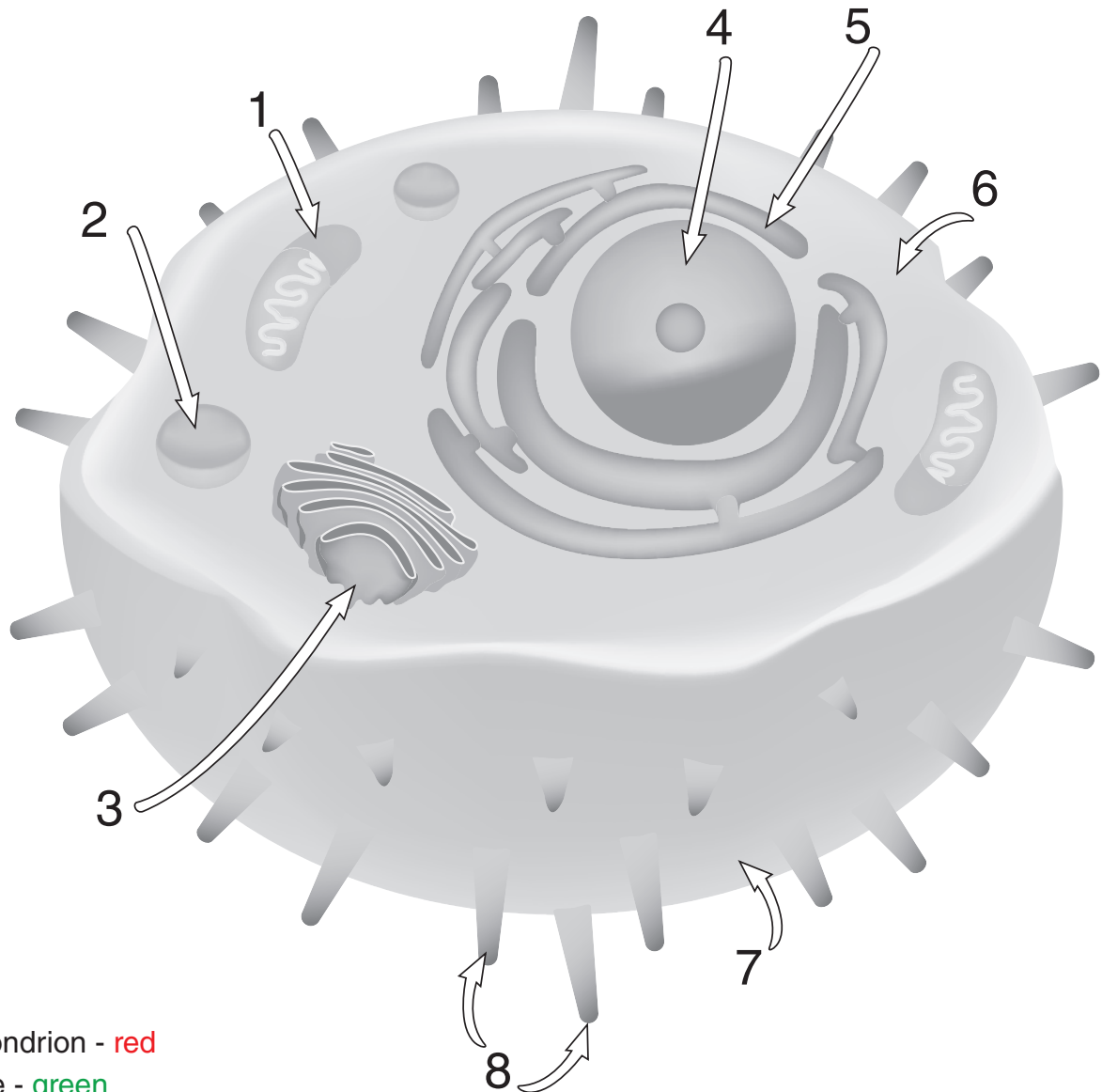
** Has an Answer Sheet*

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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.

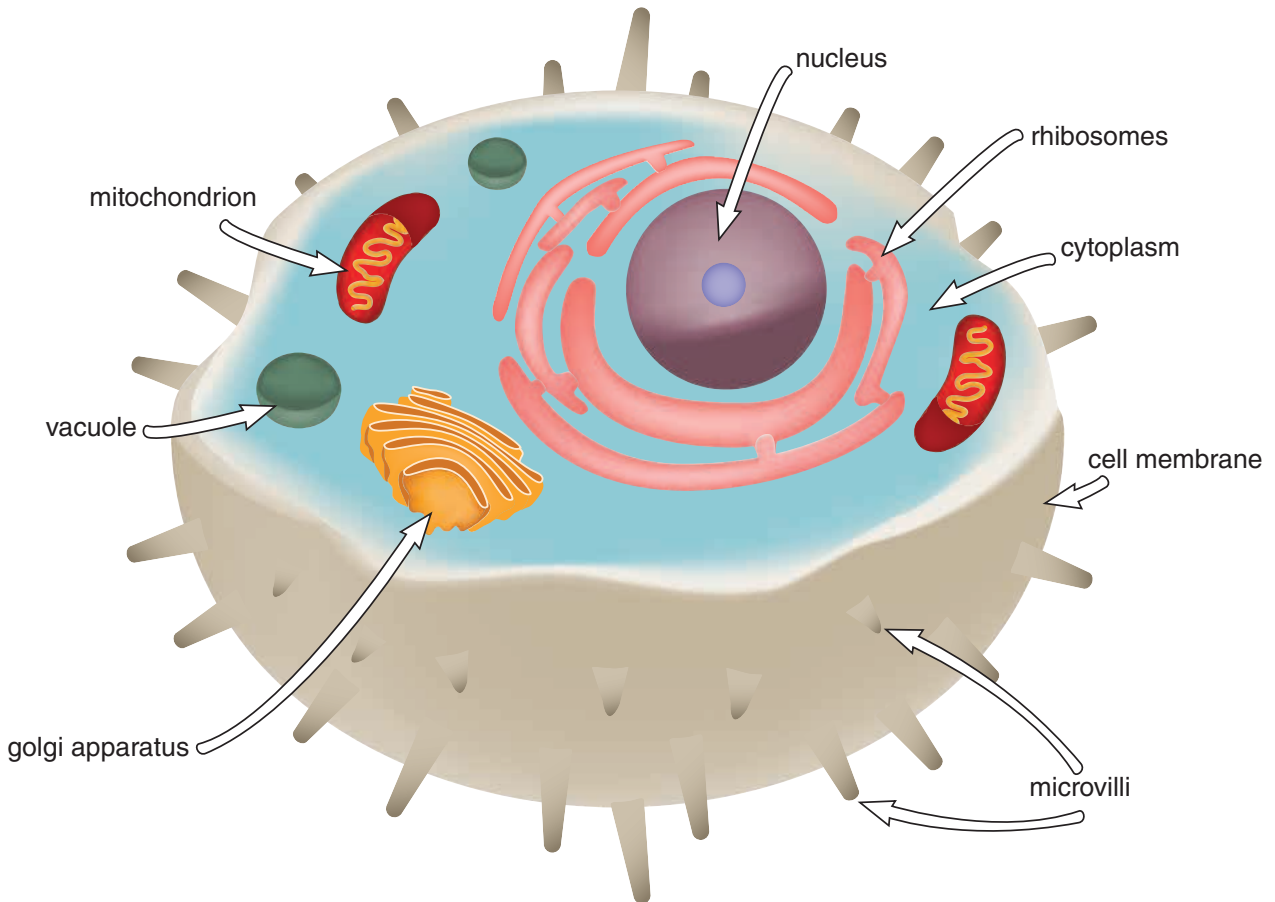
Directions: Color in each part of the cell according to the color-by-number guide.



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 _____

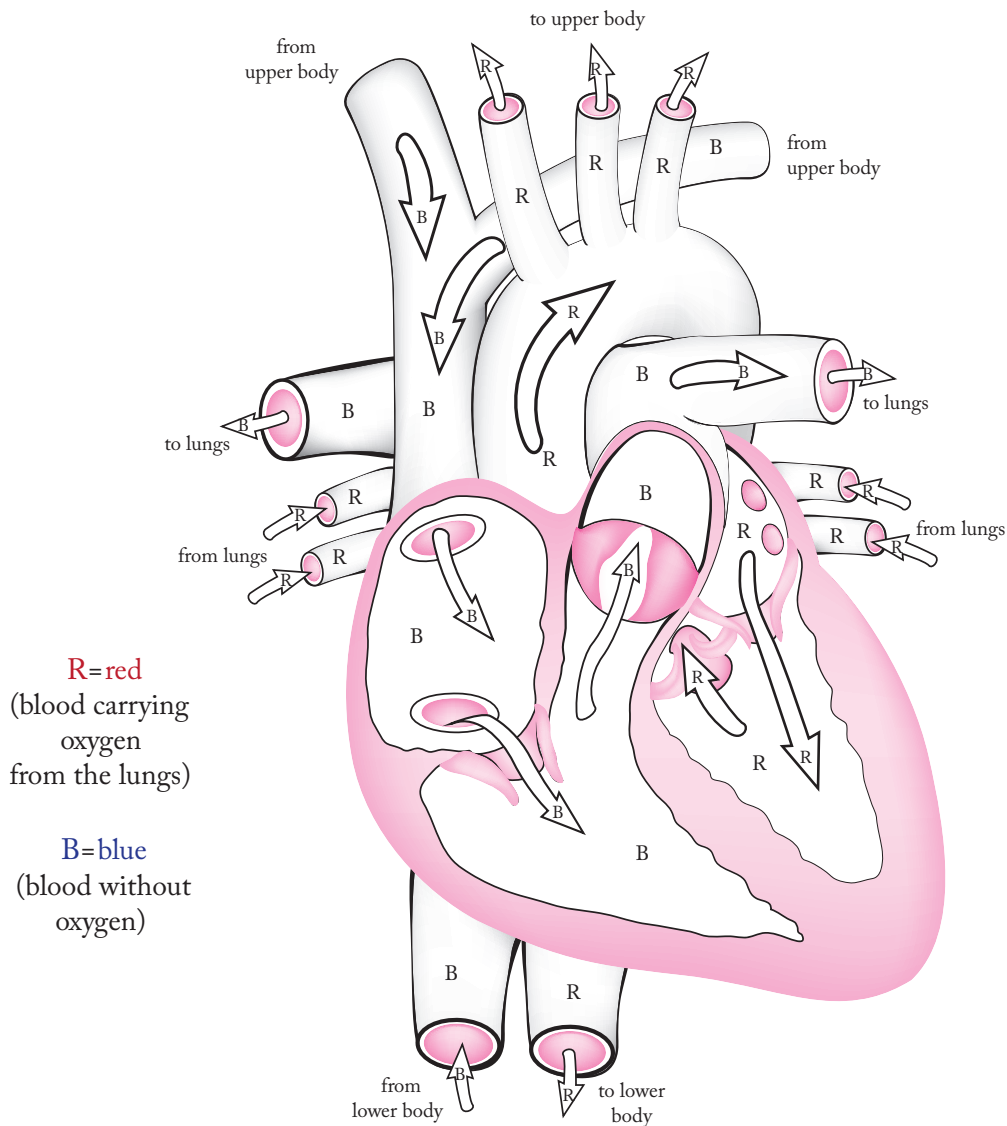
cytoplasm _____

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.



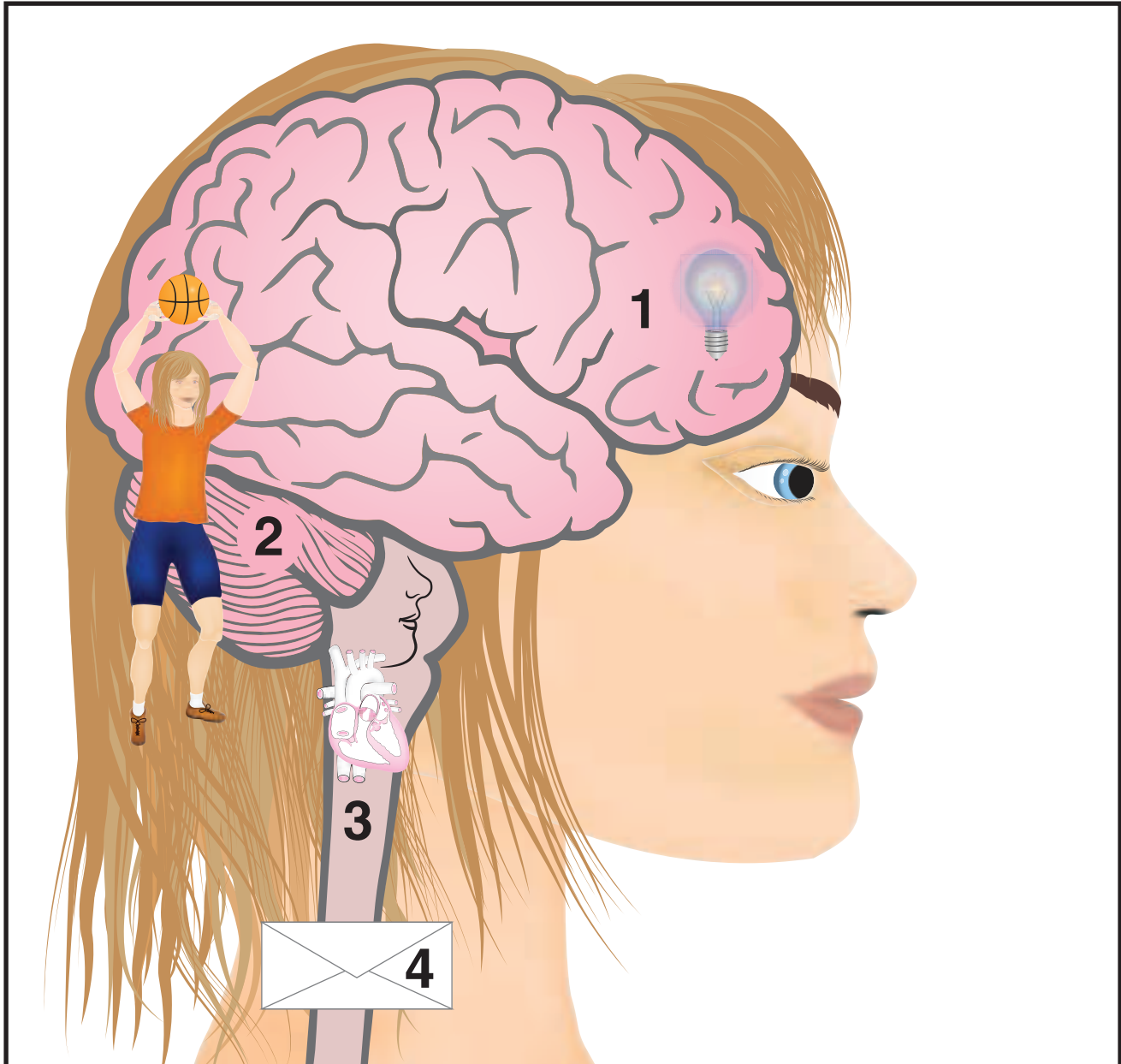
Extra Activity: Put your pointer finger and middle finger on the vein on the right side of your neck, right under your jaw bone. Find your pulse. Set a stop watch for 1 minute, and count how many times your heart beats. Write that number down. _____

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?

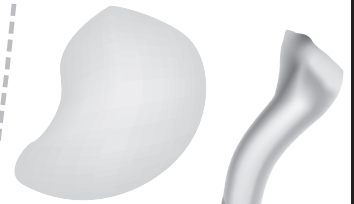
Directions: Color in the different parts of the digestive system, cut them out, and glue them in the right place on the body. (hints: Start at the top. After the tongue, connect the pieces as you go. Glue the small intestines under the large intestines.)



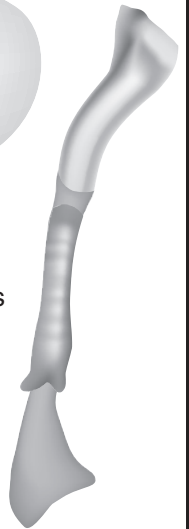
nasal and
mouth cavity



stomach



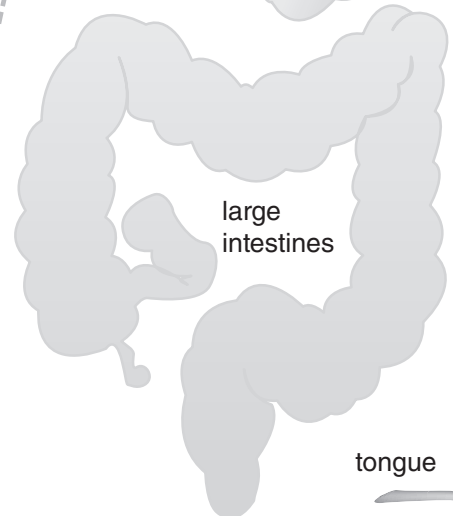
esophagus



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

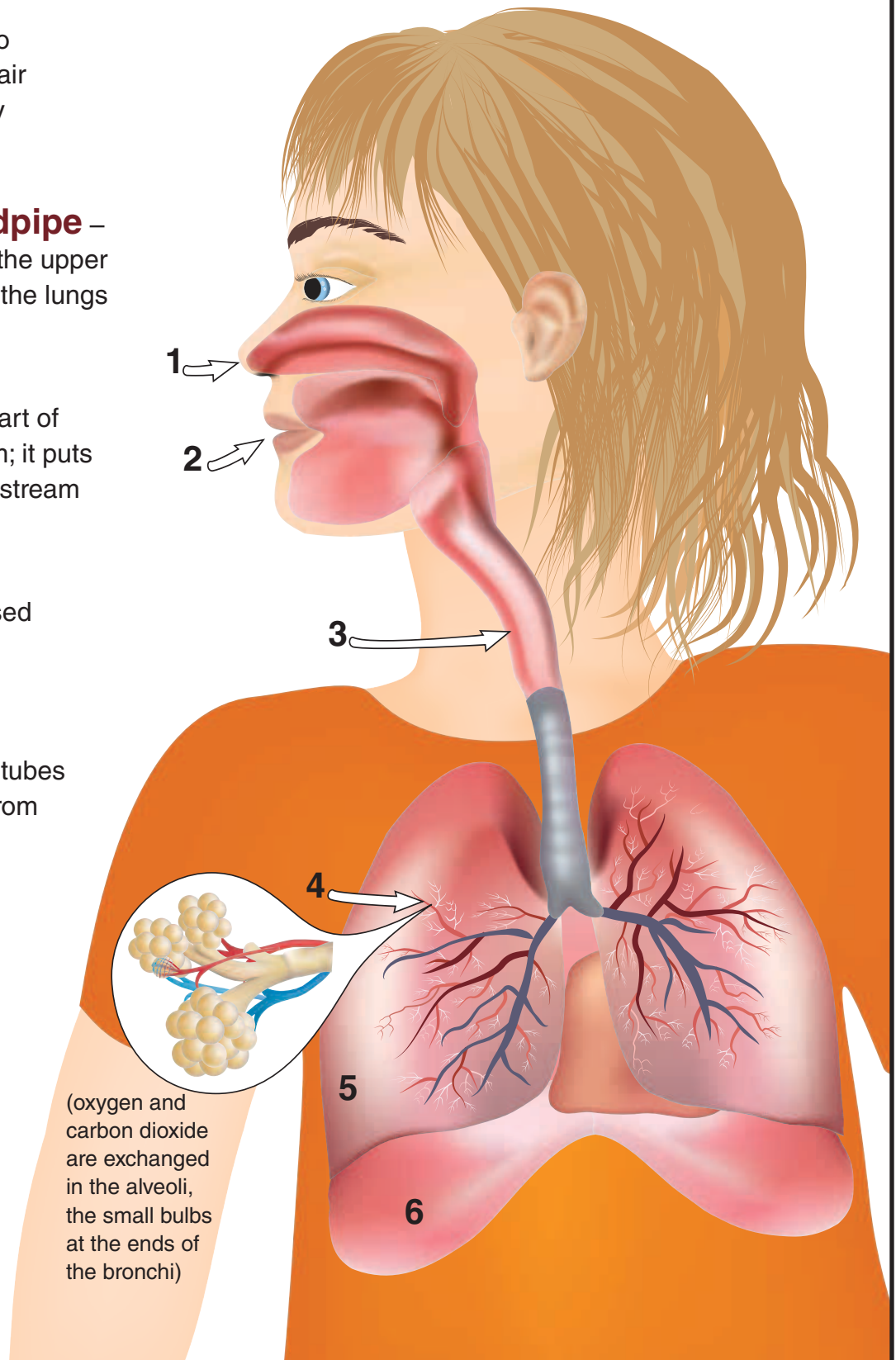
answer: _____

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

answer: _____

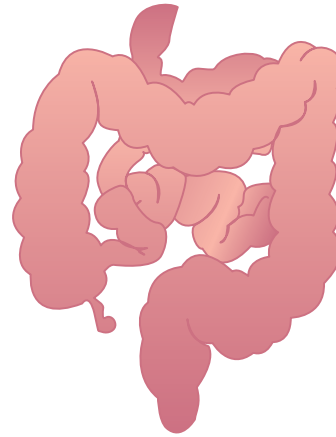
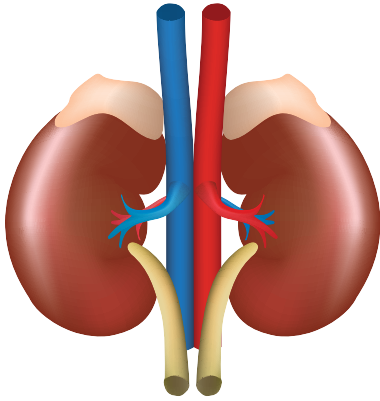
diaphragm – muscle that moves up and down to help expand your lungs

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

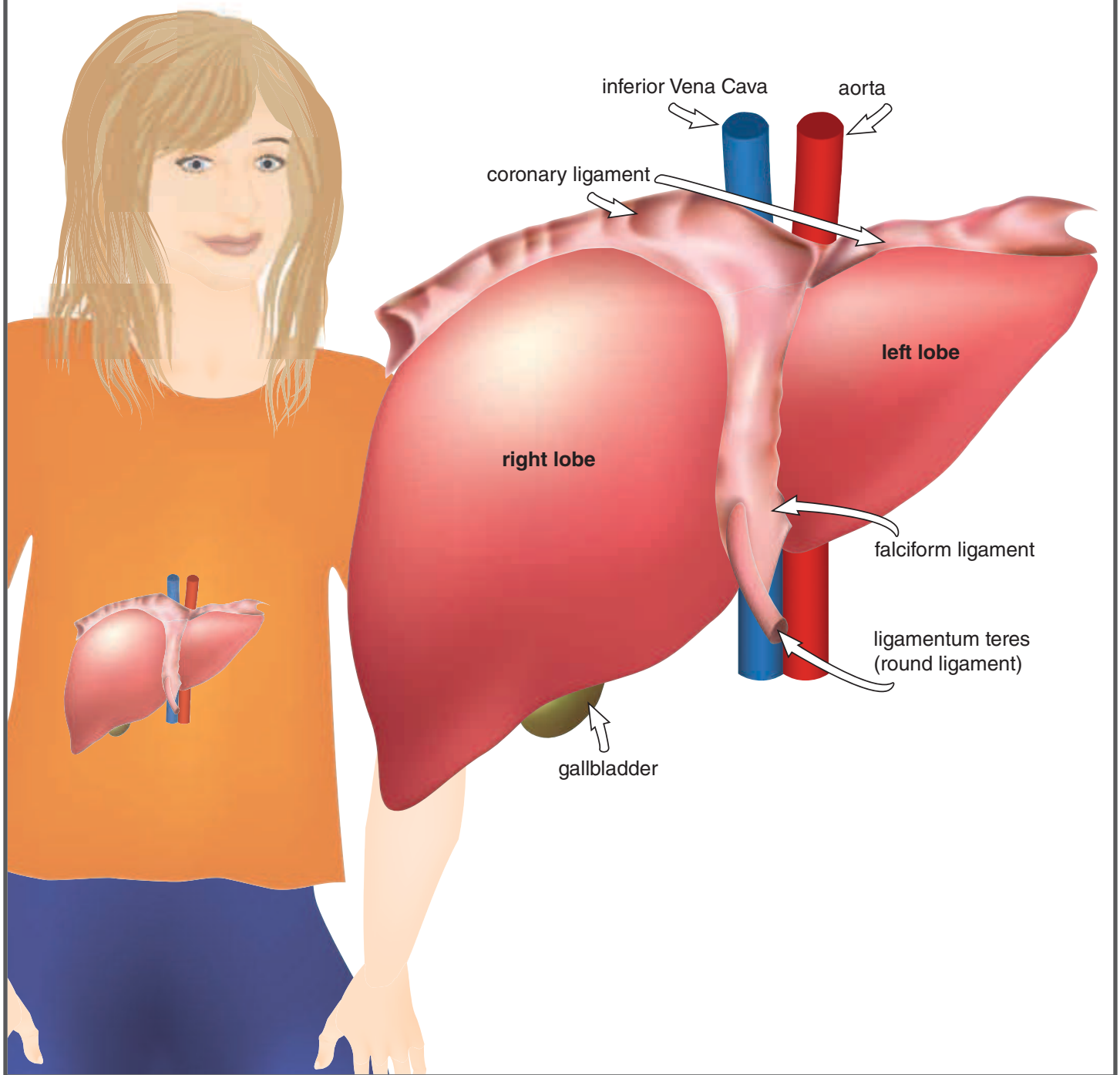
Breaks down food



Where does the liver go?

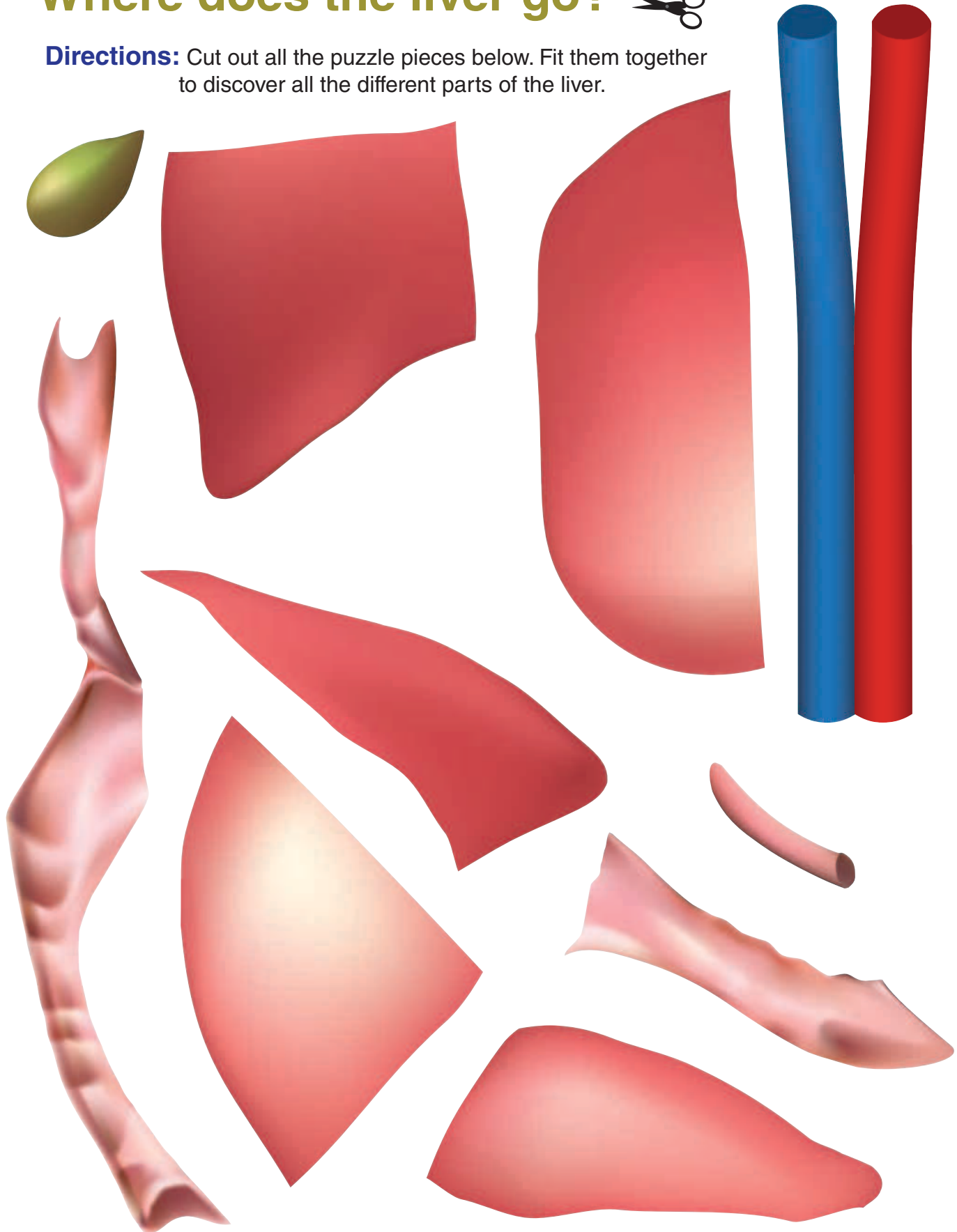
The liver is made up of very dense cells. It's designed to filter the blood before it gets passed to the rest of the body. The main function is to detoxify the blood. It clears up chemicals the body can't take. The second function is to create proteins that help blood clot.

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



Where does the liver go?

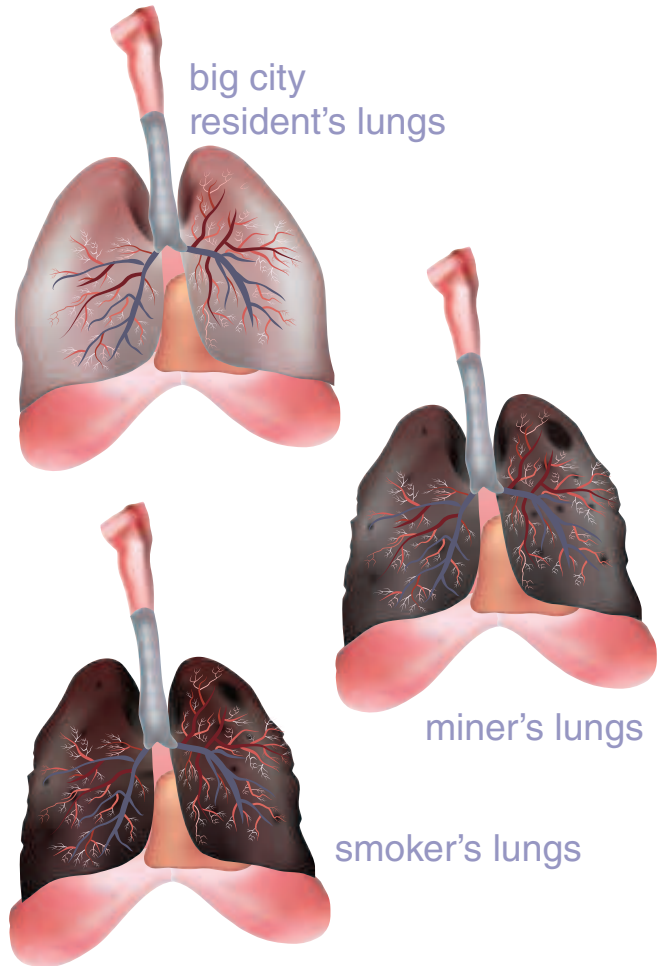
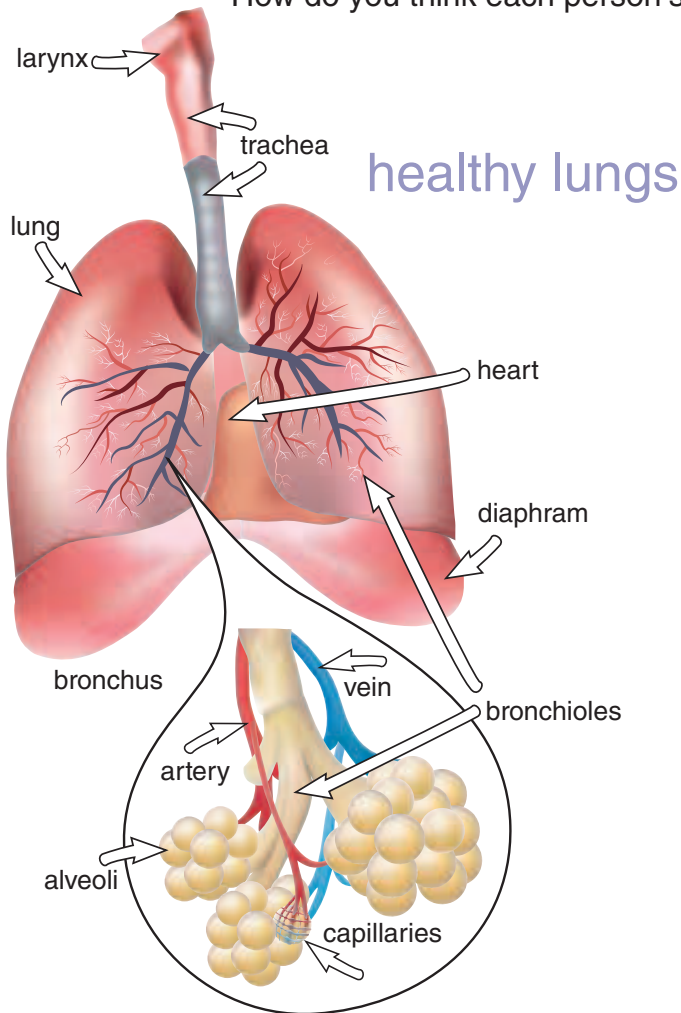
Directions: Cut out all the puzzle pieces below. Fit them together to discover all the different parts of the liver.



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 _____

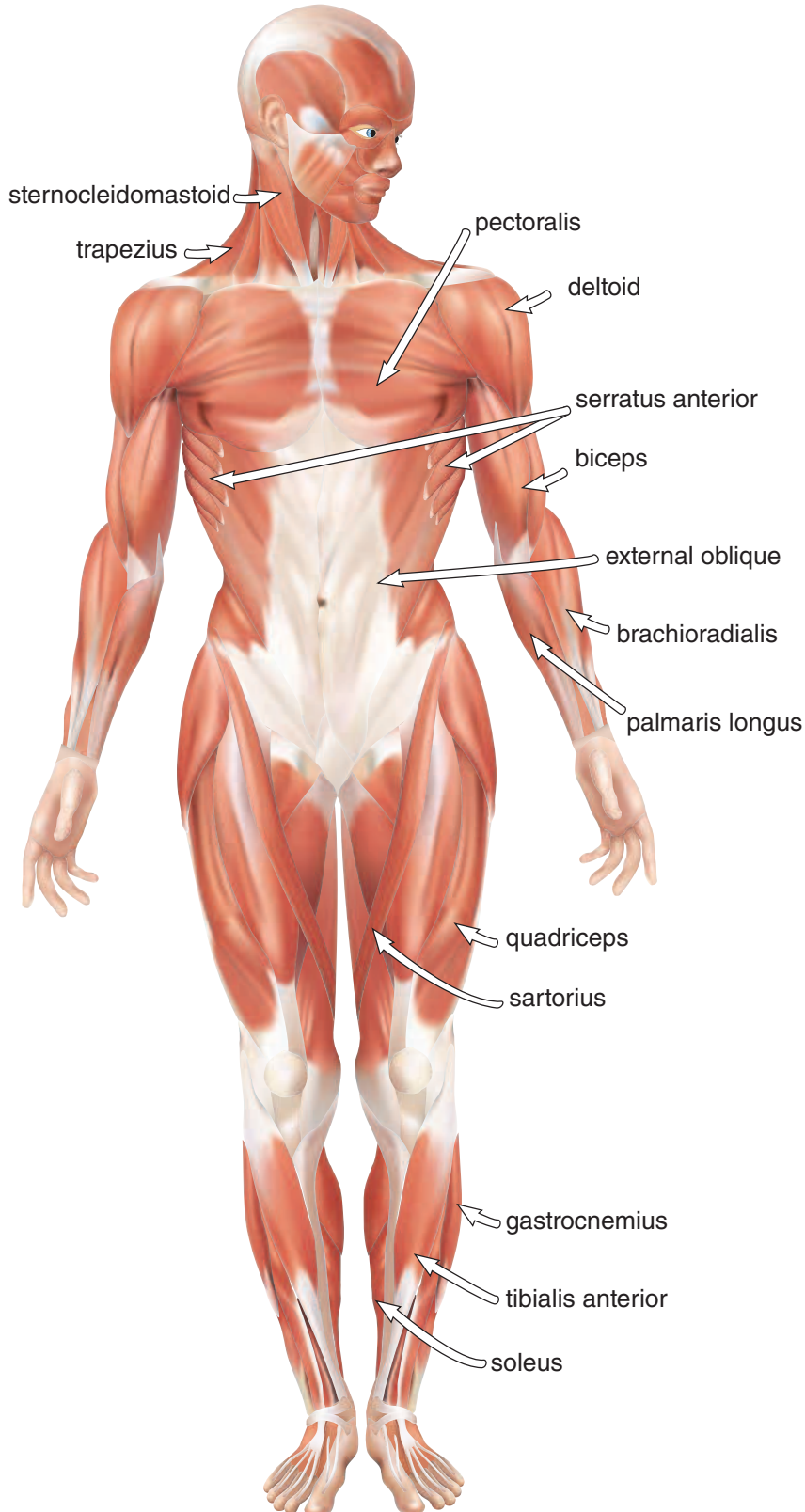
7. brchionleo _____

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?

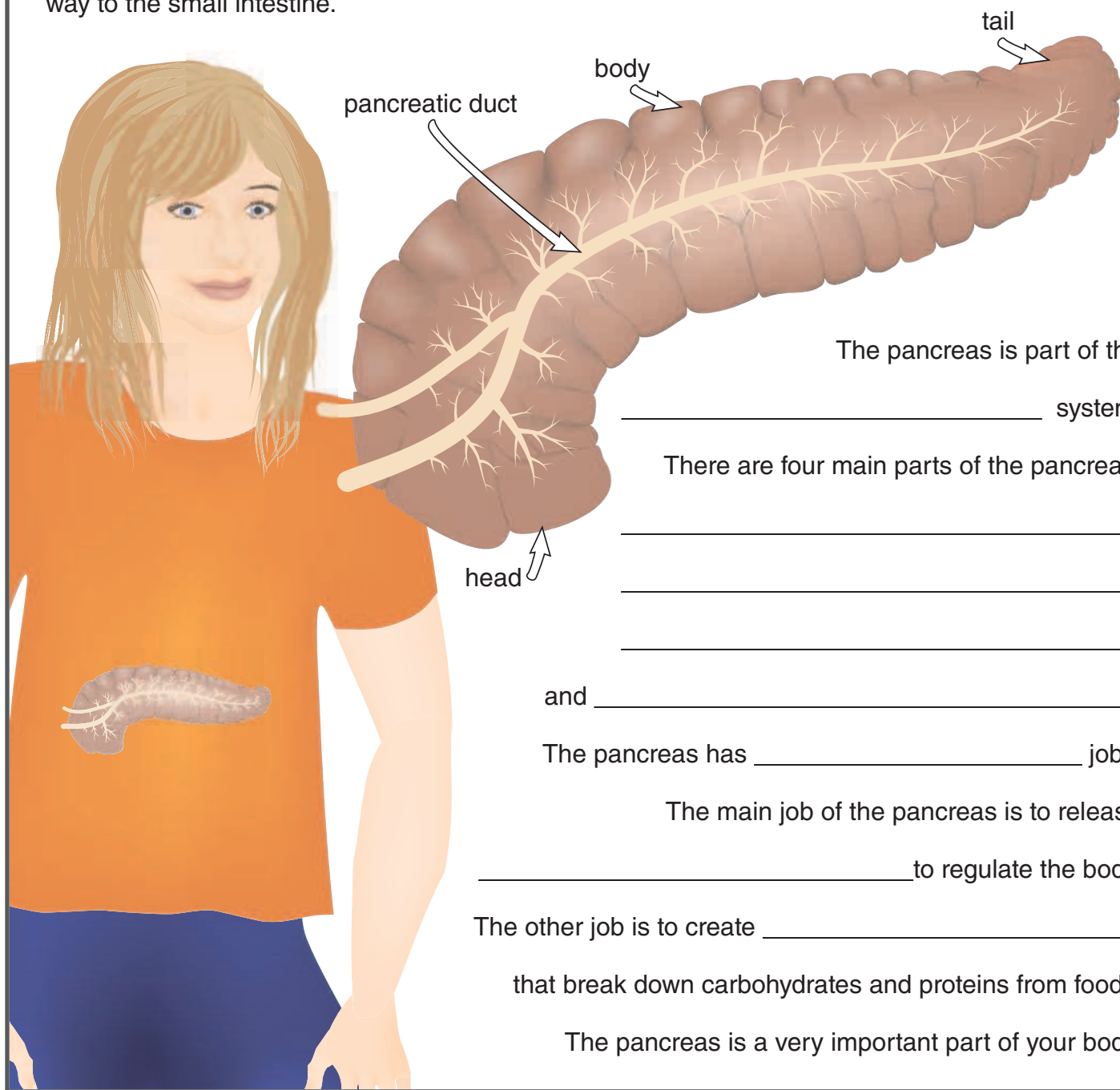
Directions: Study the picture, and read the information below.

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.

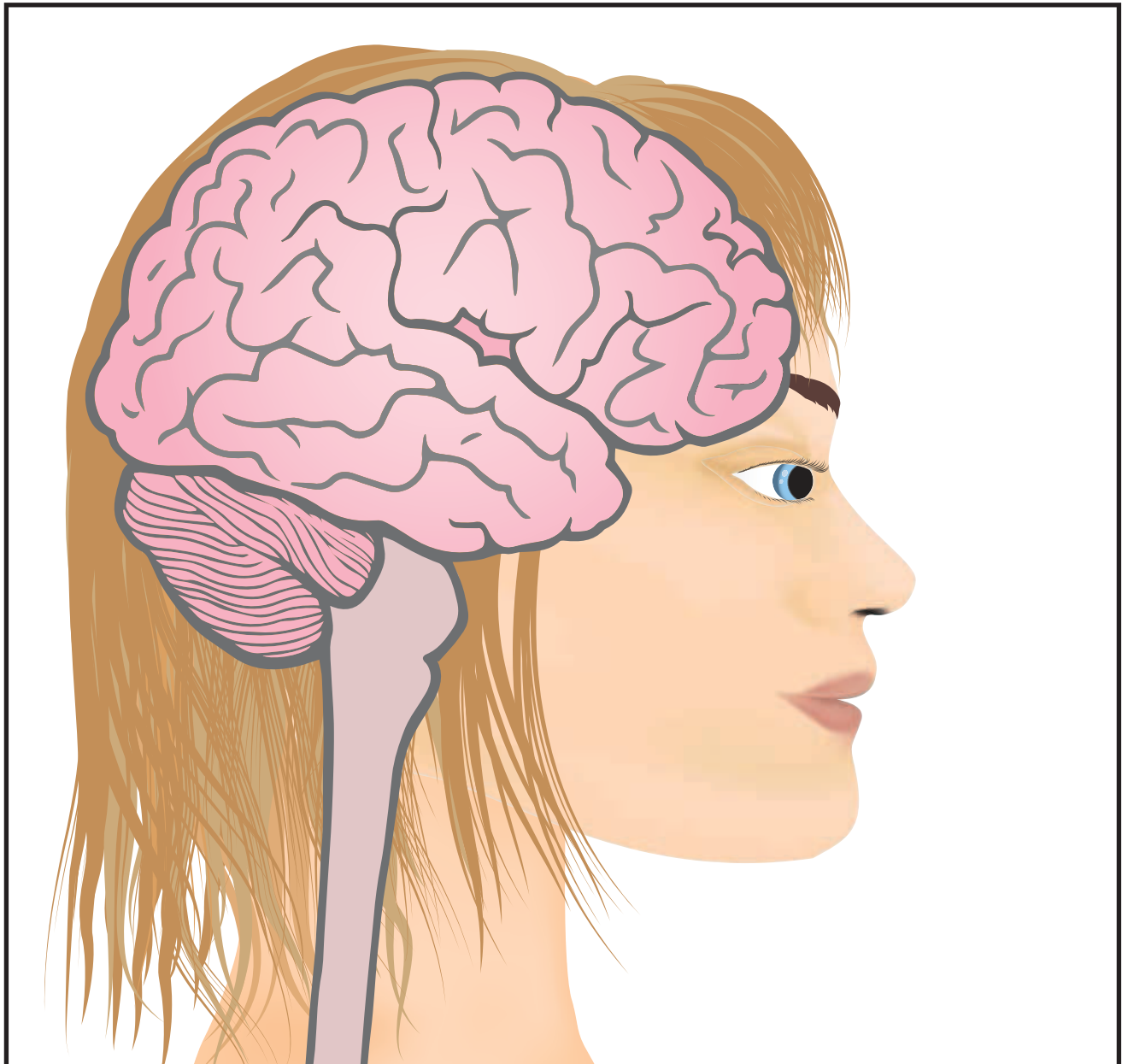
The pancreas is a very important part of your body.

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.

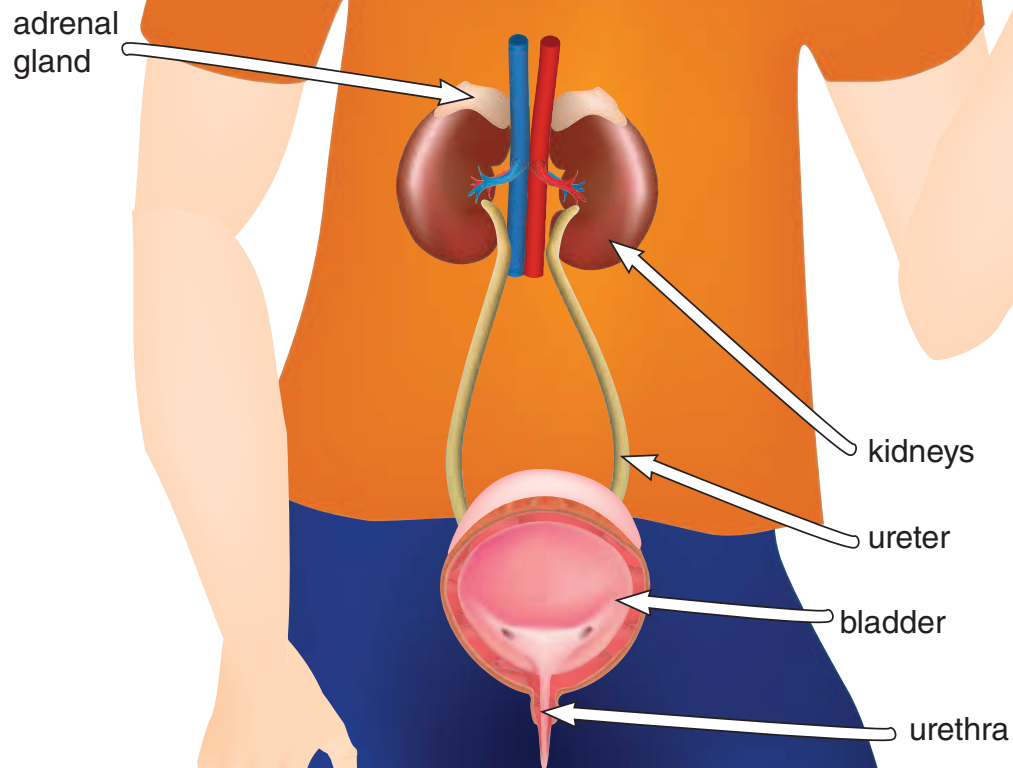
Suggestion: Some of the systems overlap each other. Draw the first system on the butcher paper, then take a piece of white paper, and tape the left side only down to the butcher paper. Now, you can draw the second system. It's like a flap book where you can pull up the paper and see the system underneath.

Brain



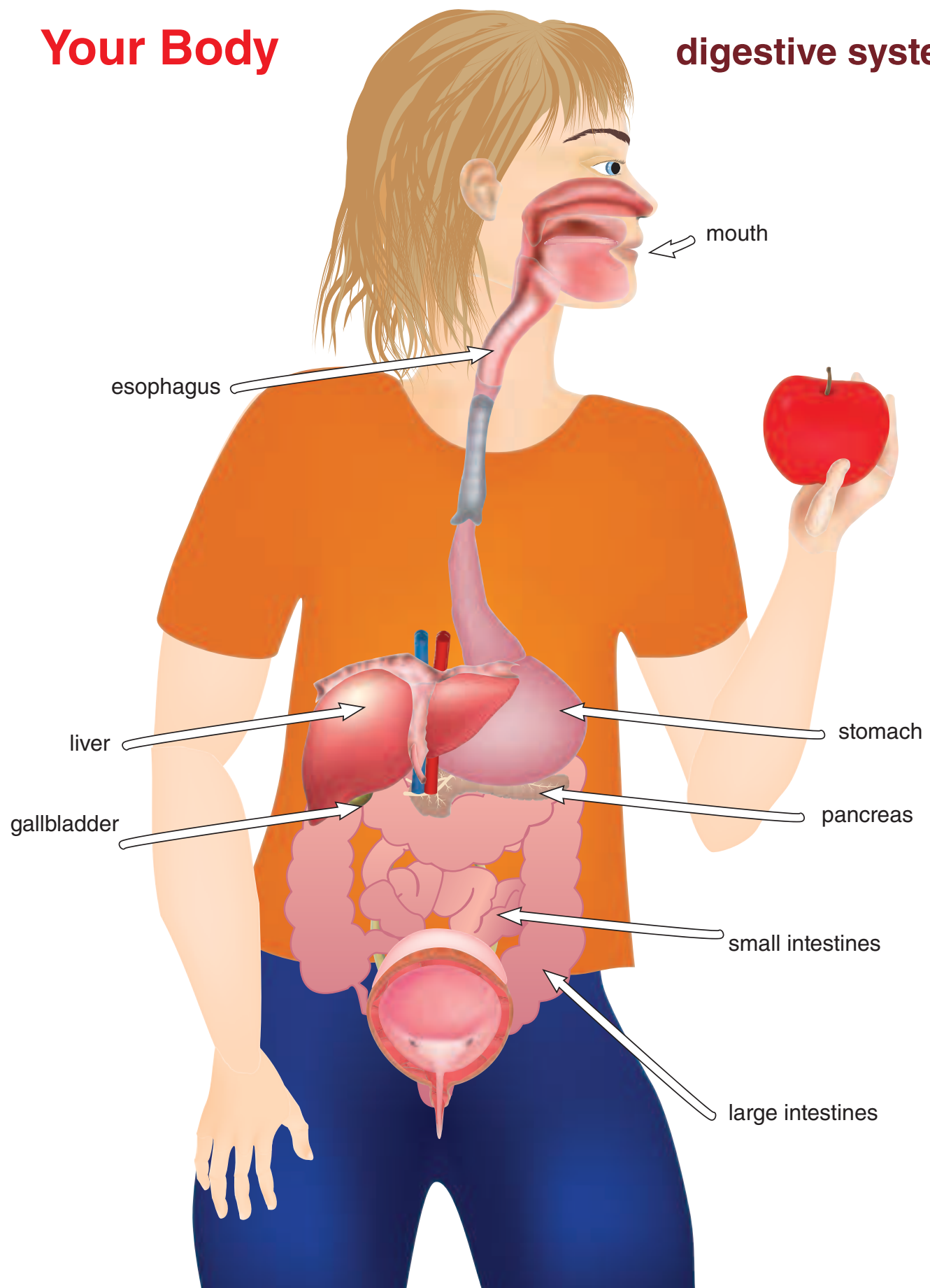
Your Body

urinary system



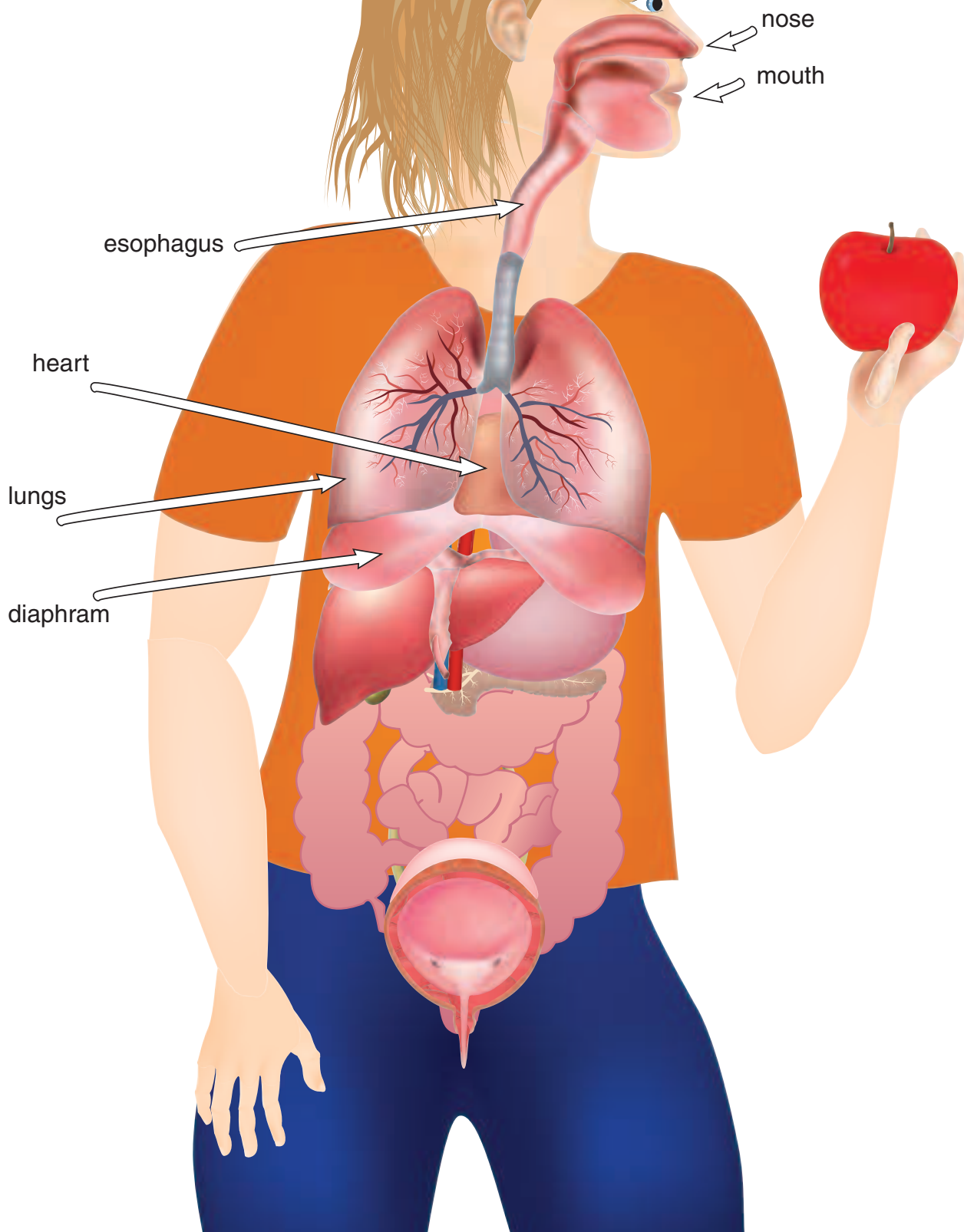
Your Body


digestive system



Your Body

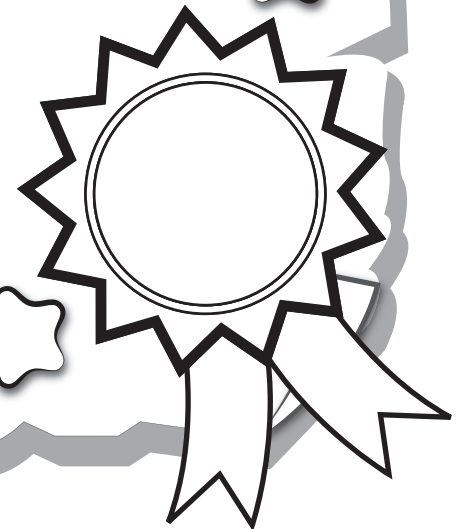
respiratory system





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Answer Sheets

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?

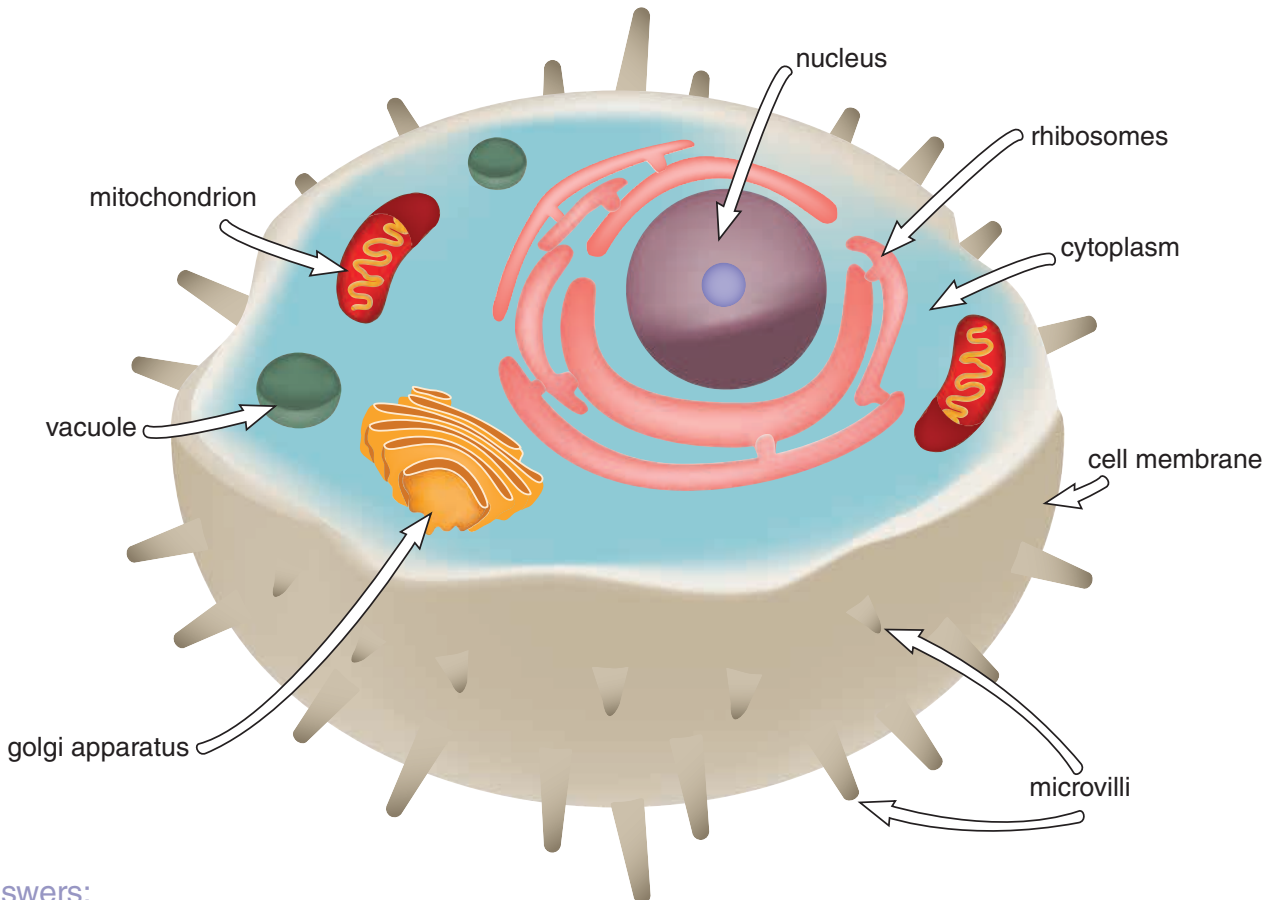
What Does the Pancreas Do?

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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

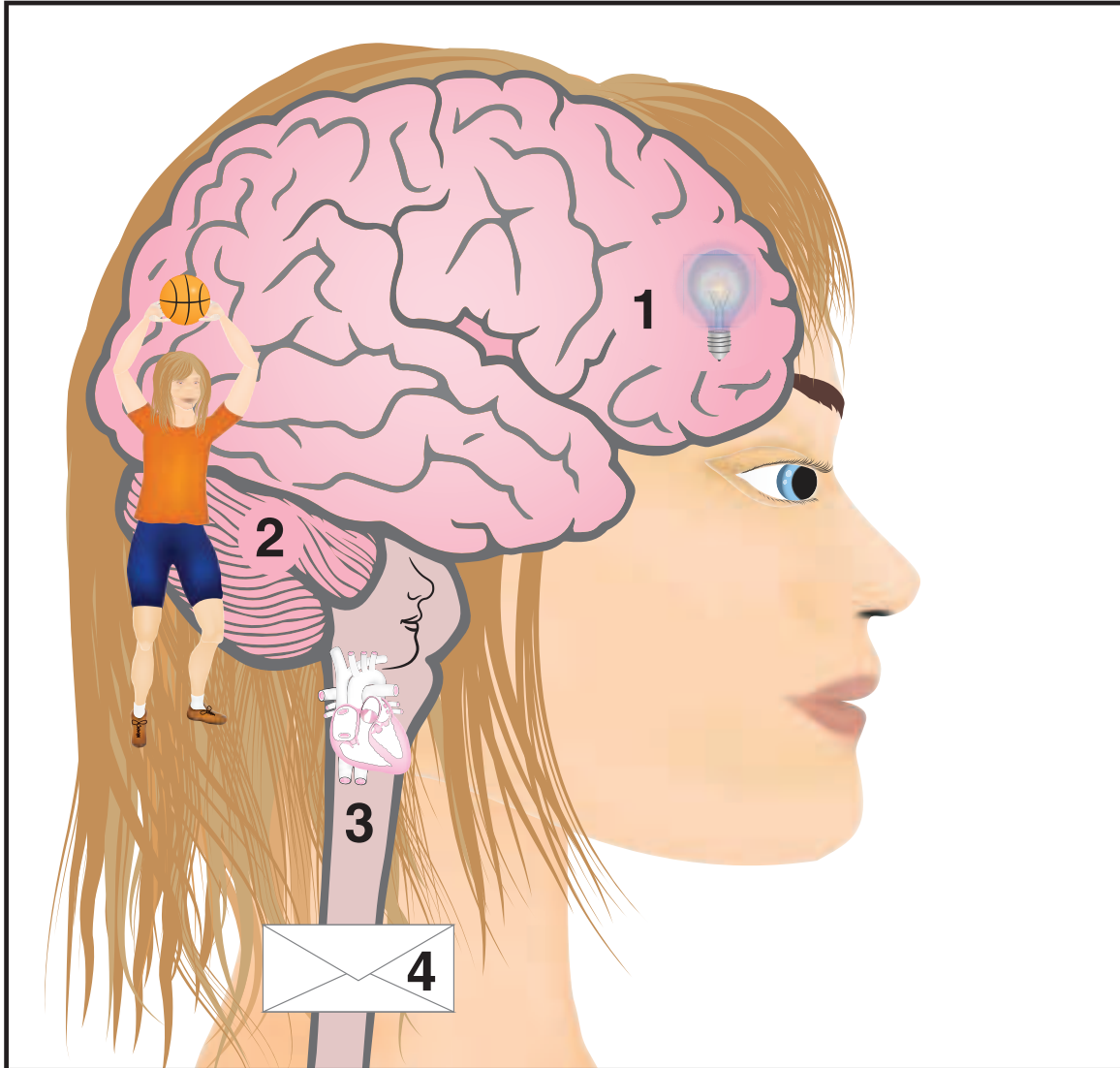
cytoplasm holds the cell's organelles in place

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

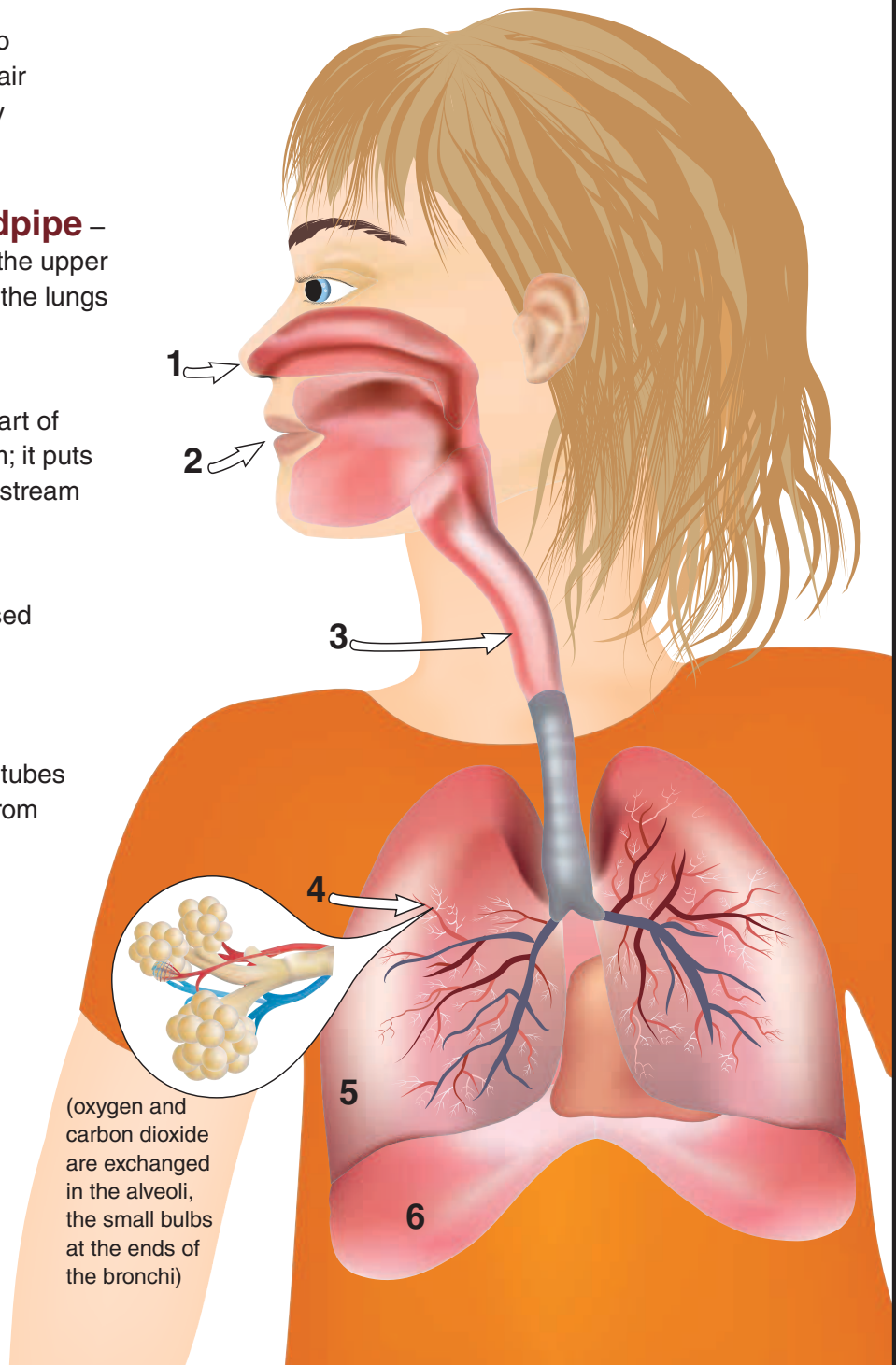
bronchi – smaller tubes that bring air to and from the lungs

answer: 4

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

answer: 6

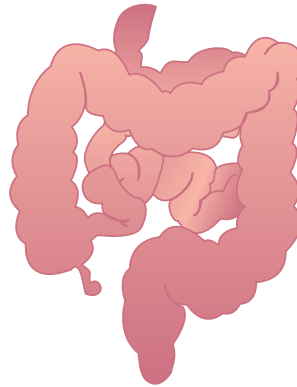
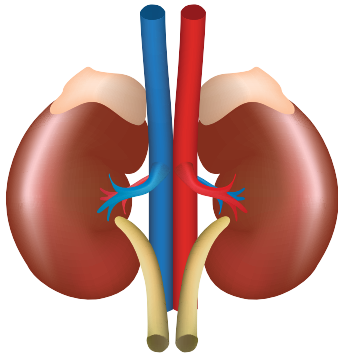
(oxygen and carbon dioxide are exchanged in the alveoli, the small bulbs at the ends of the bronchi)



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

Regulates the body's pH balance

You can live with only one of these organs

The waste from this organ turns into urine

Absorbs potassium

Cleans out the blood

Absorbs calcium

Absorbs nutrients

Absorbs sodium

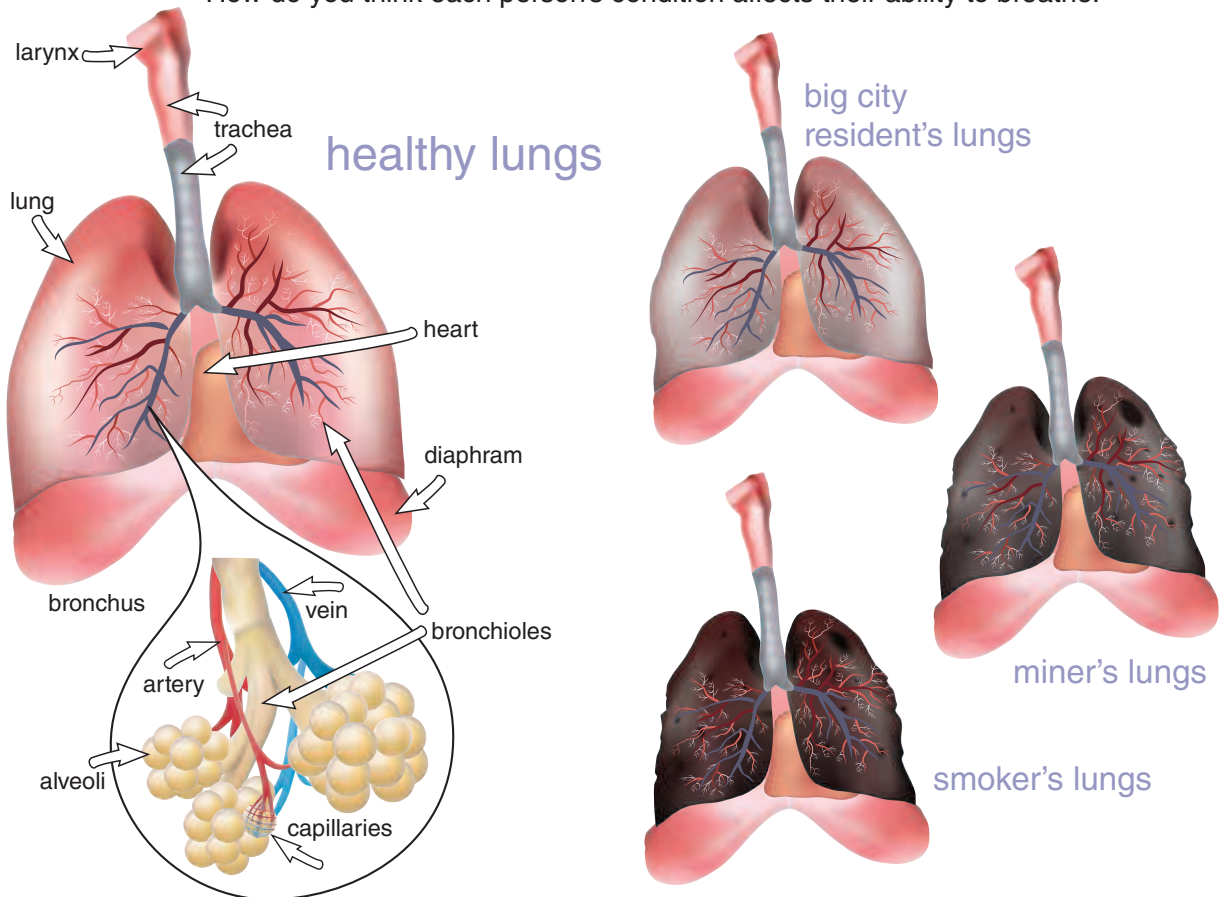
Lined with mucus

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.



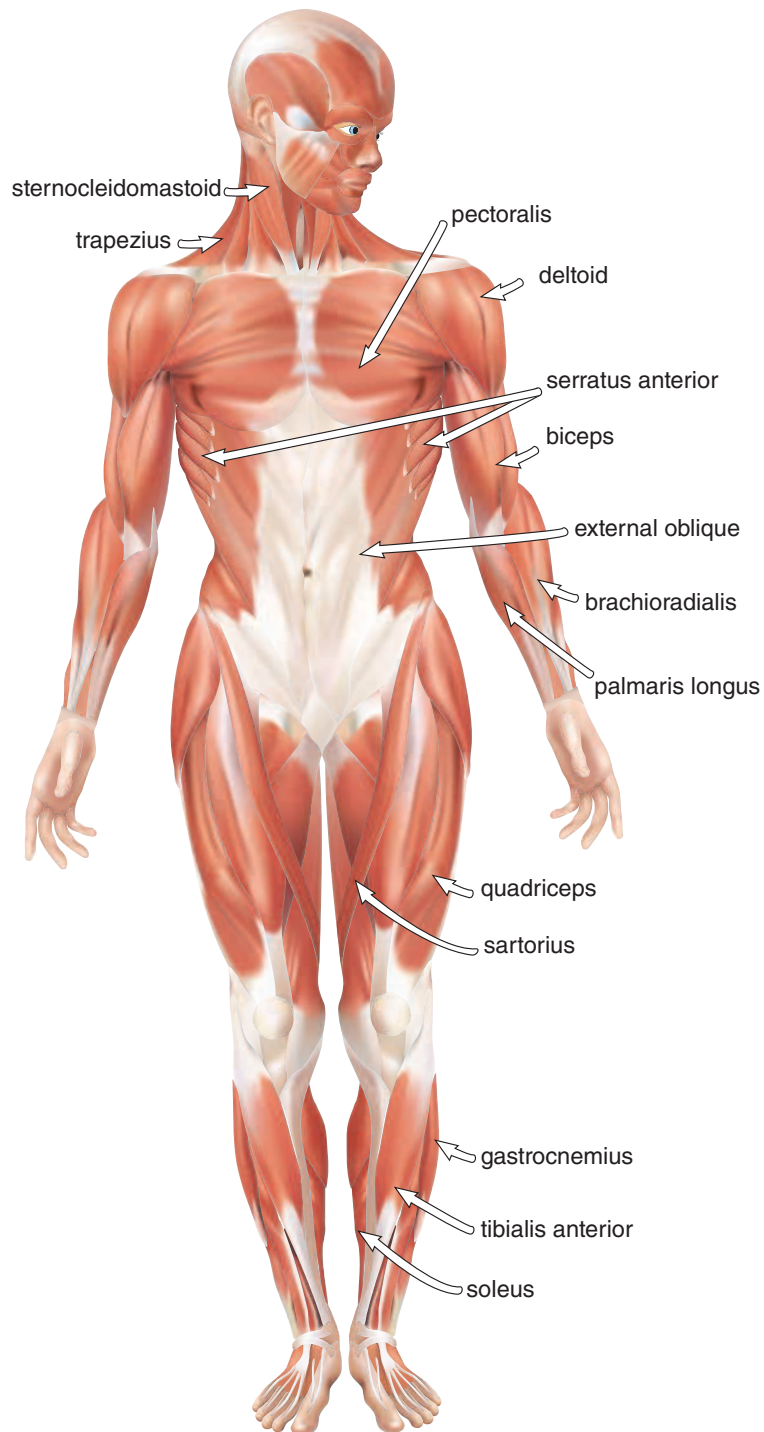
Word Scramble! Use the diagram above to unscramble these names of lung parts.

- | | | | |
|-----------|----------------|----------------|--------------------|
| 1. viaol | <u>alveoli</u> | 5. tchraae | <u>trachea</u> |
| 2. gnul | <u>lung</u> | 6. chusbron | <u>broncus</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.



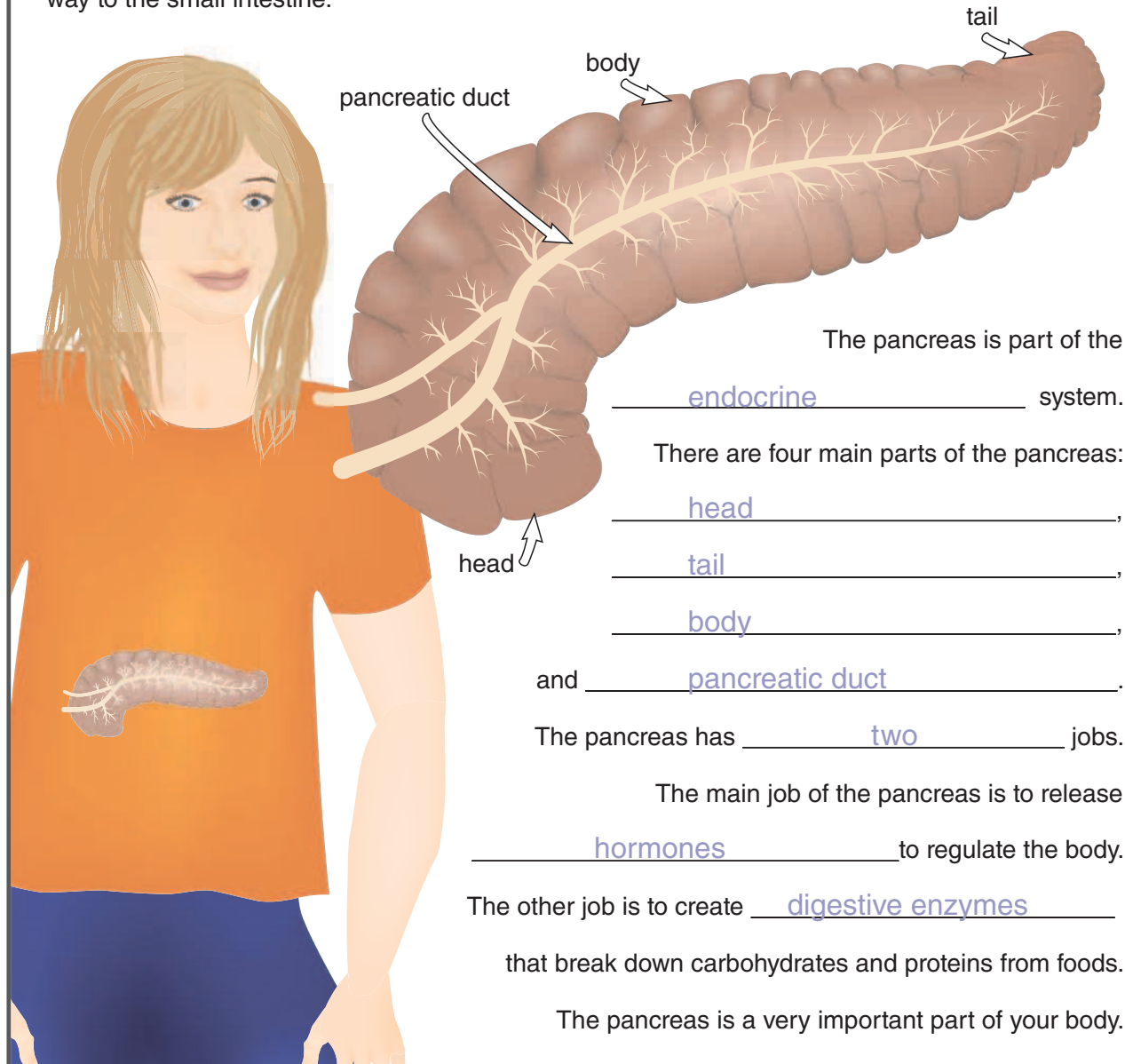
| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | A | R | T | O | R | I | U | S | T | O | D | A |
| D | I | Q | J | G | V | Z | J | E | F | H | E | K |
| Q | V | U | M | C | X | O | P | R | S | J | L | G |
| E | D | F | G | Z | S | D | F | R | K | D | T | P |
| X | 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.