A Great week of learning !! ☺

Jan 26, 2010

2009-2010 HEALTH LESSON PLANS

ROTATION WEEK # 3

GRADE 3 HOMEROOM Pogachnik, Earhart, Ivy

DAY 1
MAIN IDEA: **Systems of the Body**
1/26
LESSON: (Review in 2nd grade Big Book last years lessons on the 6 main systems of the body)
Follow Lesson 11-2 6 Body Systems
Video - "You The Living Machine" - 13 min. (Also on a DVD)
1 worksheet - 6 Human Body Systems

DAY 2
MAIN IDEA: Systems of the Body
1/27
LESSON: Follow Lesson 11-3 Functions of the 6 Body Systems
Sit on chair 3
Read to class on carpet: The Magic School Bus - Inside the Human Body
This book is in an X-Large book and there are 2 copies in the Health room library of books
- At seats Do worksheet - Identification. Do TOGETHER using the overhead of the worksheet. - Collect put in folders

DAY 3
MAIN IDEA: Heart and Lungs - need Purple Textbooks
1/28
LESSON: Review what a cell is - Text pg B8. - Read to discuss entire page - Use T. the 6 cells
Read and discuss pages B16 - B19 (if time then pg 21)
Transparancy 9, 10 + 11 12 show and discuss on overhead. Go around room w/ system pointer briefly talk about each
H.m # 34 - Do 1-4 1st (there is time in Day #5 to finish H.m #34)
Bottom #5 + 6 hard for kids - have them use pics on
Text pg 17 + 19 to write the 5 vocabulary words on the two lines (not complete sentences)
Hand out 3rd packet to put in folders
Use 1st 10 min read
15 min video

DAY 4
MAIN IDEA: **Circulatory System - Lesson II-4**
1/29
LESSON: Review on carpet w/class the Heart - arteries - veins - I used the 2nd grade pg 12-13 of the
(1) Lubba Dubba Video - start on pg 33 of Lesson II-4 to introduce video
(2) Need 1 Tennis Ball for every 2 students. Activity takes 5 minutes (If not enough time do this activity the next lesson)
(3) 1 worksheet 2 activities back-to-back on the paper

DAY 5
MAIN IDEA: Review orally the Systems of the body
2/1
LESSON: and their main functions

Pass out the extra hand-outs on the "Systems"
(1) Human Body Systems - discuss (from www.KidsKonnect.com)
(2) Heart + Circulatory System - (from Kids Health.org) a new sheet w/ more info is now up on the web!!)

Do Word Search for Circulatory & Respiratory (at end of class for 5 minutes)

LESSON II-4: The Circulatory System

Student Learning Objectives:

II-7. Students will name and label four major parts of the circulatory system.

II-8. Students will describe the major function of the circulatory system.

Preparation

- Gather the needed materials.
- Duplicate the Student Worksheets, "Can You Trace Where the Blood Flows?" and "Your Circulatory System," so that each student has a copy of each one.
- Using the Student Worksheets as masters, make a transparency of each if they are not provided in your box of materials.
- Make a vocabulary list by writing out the vocabulary words in Activity 1 on a large chart or flash cards.

Materials

Equipment

- VCR and monitor
- Overhead projector

Resources

- Torso or Magnetic Way
- Bulletin Board: "Human Body Systems"
- Poster: "Your Circulatory System," American Heart Association
- Student Worksheet: "Can You Trace Where the Blood Flows?" American Heart Association
- Student Worksheet: "Your Circulatory System," American Heart Association
- Video: *Lubba Dubba: The Inside Story of Your Heart and Blood* (15 minutes)
- Teacher Reference: Circulatory System Terminology

Realia

- Transparencies
- Transparency pens, red and blue
- Vocabulary chart or word cards
- Tennis balls, one per two students
- Map of the world (Integration Idea)

Time: 35 minutes

Lesson Procedure

Introduction: 1 minute

Connect this lesson on the circulatory system with the previous lesson on functions of the six body systems.

1. Using the "Human Body Systems" bulletin board, review the six systems by sharing:

   We have been learning about six of our body systems. Let's list them as I point to our bulletin board.

   Which one of these systems carries oxygen and food to all the parts of our body? [the circulatory system]

2. State:

   Today we will be learning more about this system.

Activity 1: 5 minutes

Introduce students to the vocabulary describing the circulatory system.

1. Write the following vocabulary list on a wall chart or word cards. Go over the pronunciations of the words with the students (see the Teacher Reference for definitions and pronunciations).

*blood	*arteries	pulse	*heart	red blood cells
circulation	capillaries	right atrium	left atrium	white blood cells
*veins	blood vessels	left ventricle	right ventricle	valves

   * = words to emphasize

2. Tell the students:

   If you can tell us where any of these parts are located on the torso or Magnetic Way, raise your hand.

   Call on students to share.

> Teacher's Note: At this point in the lesson, most students will not be familiar with this information, but this procedure allows the advanced students an opportunity to teach. You will need to be prepared with the information students do not know (see Teacher Reference).

Begin Lesson here

Activity 2: 17 minutes

Explore the functions of the circulatory system.

1. Ask the students:

   Who can tell me what the strongest muscle of the body is? [heart]

   Did you know you can feel your heart pump blood? Place your first two fingers on your throat and slide them off to the side until you can feel a movement. This is a pulse. A pulse is caused by the heart pumping the blood through the arteries.

   Let's find out more about how our heart works by watching a video. Be sure to listen for our vocabulary words in the video.

2. Show the video *Lubba Dubba: The Inside Story of Your Heart and Blood.*

3. Discuss the video by using the following questions:

   What is your heart and what is its major job? [The heart is a muscle. Its major function is to pump blood, which carries food and oxygen, throughout the body.]

   What does blood do? [It carries oxygen and food materials to the cells in the body.]

   How can you keep your circulatory system healthy? [Exercise. Eat nutritious foods. Rest. Relax. Don't smoke.]

Activity 3: 3 minutes

Demonstrate the strength and endurance of the heart pump.

Tennis balls by window

1. Share with the students:

   Our heart pumps blood all the time. It never stops–not to sleep, not to eat, not for recess. Watch as I squeeze this tennis ball in my hand 70 times a minute. This is how hard my heart is pumping.

   Keep it up until you begin to tire, then share:

   The heart must be a very strong muscle. It can keep on pumping longer than I can squeeze the ball.

2. Ask the students to find a partner and give each pair a tennis ball. Share with them:

   The heart of an eight, nine, or ten year old pumps even faster than the heart of an adult. So you must squeeze your ball 90 times (three times every two seconds) per minute to squeeze as often as your heart is pumping.

   Allow each student in the pair to try to squeeze the ball as many times per minute as his or her heart is pumping.

Activity 4: 8 minutes

Outline the path of the blood through the body.

1. Show the students the poster, "Your Circulatory System," and share:

   On this poster, the color of the blood carrying oxygen is bright red, and the color of the blood carrying carbon dioxide is blue. In our bodies, the blood carrying carbon dioxide is actually bluish-red or maroon.

   Trace the flow of the blood on the poster.

2. Distribute the Student Worksheets, "Can You Trace Where the Blood Flows?" and "Your Circulatory System," to each child.

3. Using a transparency of the Student Worksheet, "Can You Trace Where the Blood Flows?" show the students the path of the blood through the heart. Allow them to do their own worksheets.

4. Using a transparency of the Student Worksheet, "Your Circulatory System," show the students where the arteries (bright red) lie and where the veins (bluish-red) lie. Allow them to complete their worksheets.

Closure: 1 minute

- Summarize by asking:

  What is your heart made of? [muscle]

  What does your blood carry from the lungs? [oxygen]

  What can you do to be sure your blood gets lots of oxygen from your lungs? [Don't smoke. Breathe clean air. Breathe deeply.]

  What else does the blood carry? [It carries food to all parts of the body.]

  What will you do tonight to keep your heart muscle strong? [Exercise and eat nutritious foods.]

  Later on in our health lessons, we will learn how harmful illegal drugs are to our circulatory system. This is why it is important to do the right thing and say "no" to illegal drugs.

- State:

  Our next health lesson will teach us about the digestive system.

Integration Ideas

Geography and Math

- State this fact:

  If you laid all the body's blood vessels end to end, they would measure 60,000 miles—that's twice around the equator.

  Using a map, ask them:

  If you traveled 60,000 miles from your home, where would you end up?

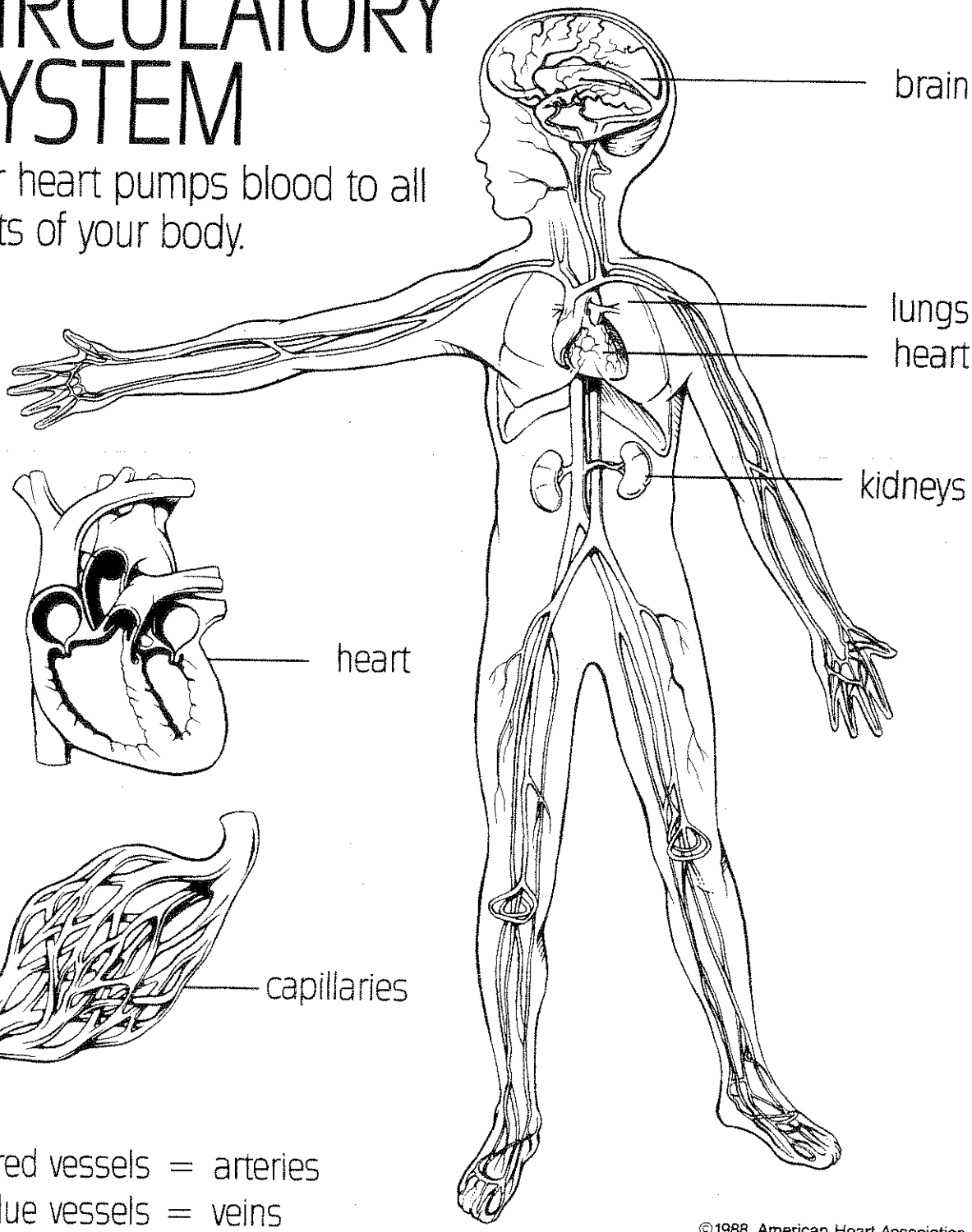
  What might you see there?

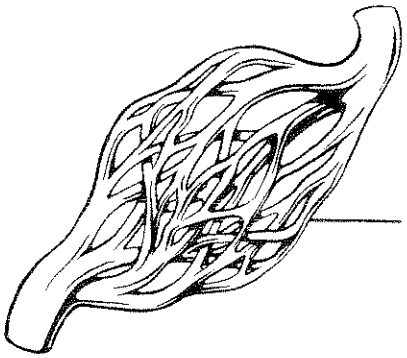
  How long would it take you if you traveled by foot? by horse? by car? by boat? by air?

NAME _____

YOUR CIRCULATORY SYSTEM

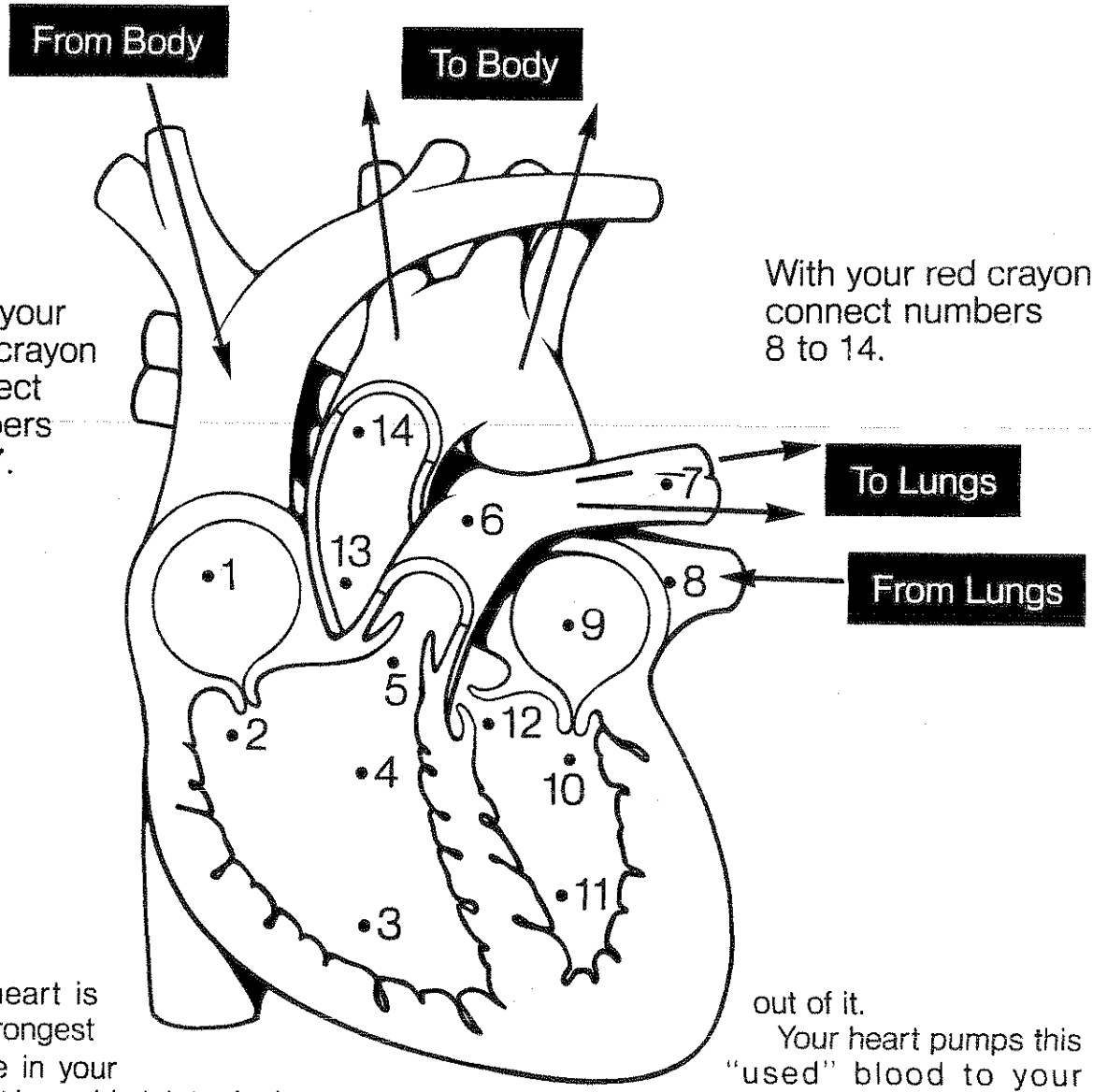
Your heart pumps blood to all parts of your body.





key: red vessels = arteries
blue vessels = veins

CAN YOU TRACE WHERE THE BLOOD FLOWS?



With your blue crayon connect numbers 1 to 7.

With your red crayon connect numbers 8 to 14.

Your heart is the strongest muscle in your body. It has a big job to do. It pumps blood to all parts of your body.

After blood has traveled through your body it comes back to your heart. It's bluish because oxygen has been taken out of it.

Your heart pumps this "used" blood to your lungs. That's where it gets oxygen. When blood comes back from the lungs, it's bright red.

After your blood has oxygen put back in, your heart pumps it all over your body.

THE AMERICAN HEART ASSOCIATION SCHOOLSITE PROGRAM®

HOW YOUR HEART WORKS, LOWER ELEMENTARY

American Heart Association

CIRCULATORY SYSTEM TERMINOLOGY

Teacher Vocabulary

1. Blood: body liquid that contains plasma, red blood cells, white blood cells, and platelets. Blood carries oxygen and nutrients to all parts of the body and carries waste away.

2. Blood Vessels: network of tubes that carries blood throughout the body; includes arteries, veins, and capillaries.

3. Arteries: blood vessels that carry oxygen-rich blood away from the heart to the body parts for nourishment. The blood inside is bright red.

4. Veins: blood vessels that carry waste products from the cells back to the heart. The blood inside is bluish-red.

5. Capillaries: smallest network of blood vessels that allow the nutrients to go to the cells in order to nourish the body. It is here that oxygen and nutrients leave the blood and waste products enter the blood.

6. Heart: a powerful pump made up of muscles which circulates the blood. It is about the size of a fist.

7. Right Atrium and Left Atrium: upper chambers of the heart which collect the incoming blood.

8. Right Ventricle and Left Ventricle: lower chambers of the heart that pump blood out of the heart.

9. Circulation: carries products to and from all parts of the body. It can be compared to a train traveling around the country, loading and unloading freight (food, oxygen, and waste products).

10. Red Blood Cells: cells that carry oxygen from the lungs to the rest of the body and carry carbon dioxide from the cells back to the lungs; made in the bone marrow.

11. White Blood Cells: cells that fight disease; made in the bone marrow or lymph tissue.

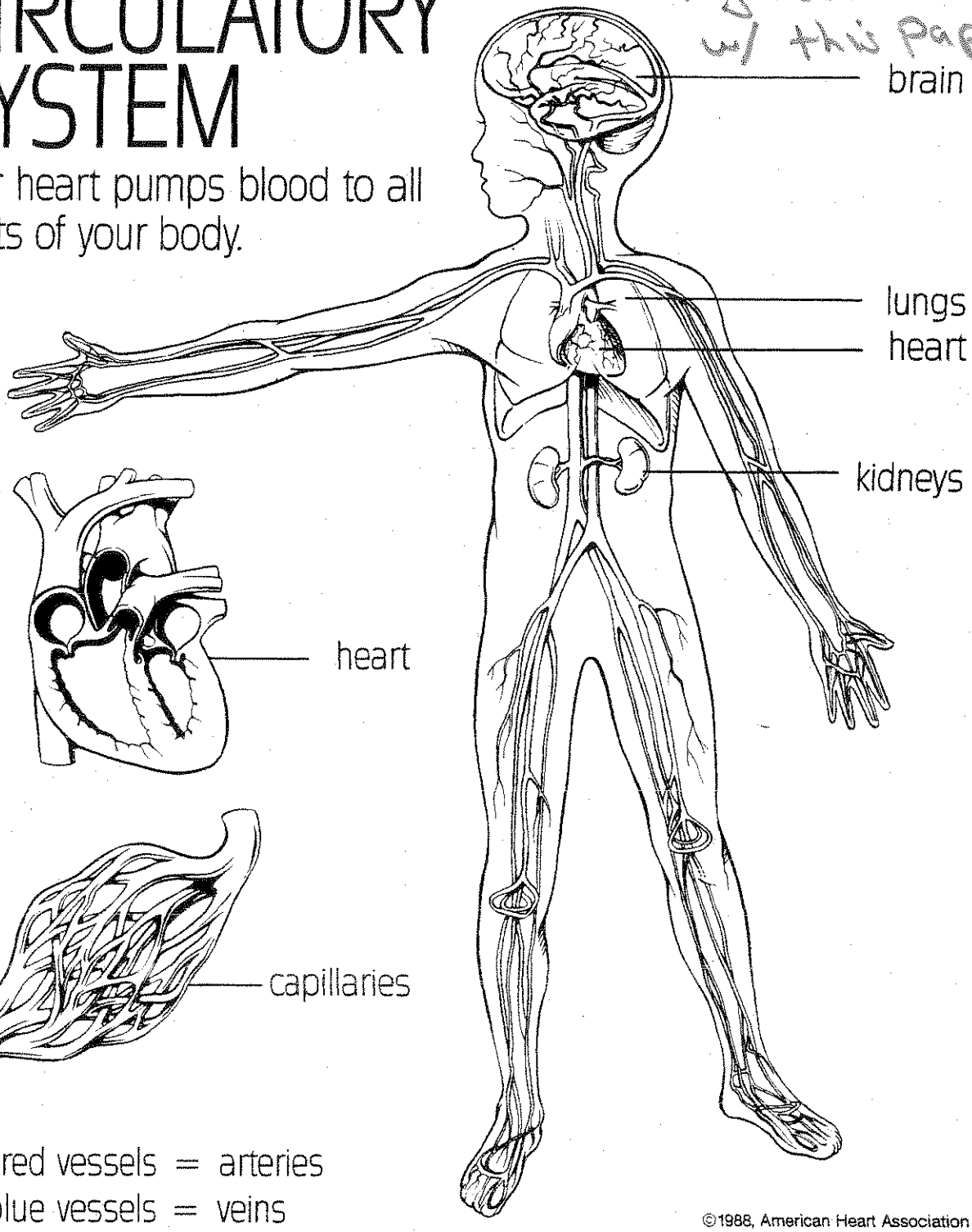
12. Pulse: rhythmical throbbing of the arteries produced by contractions of the heart. The normal rate is approximately 90 times a minute for a third grade student.

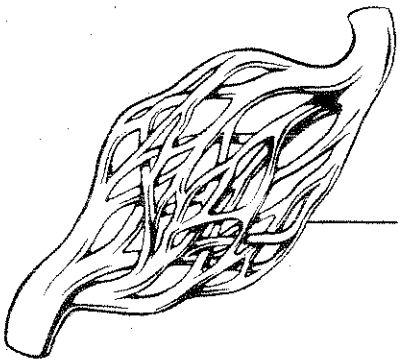
NAME _____

YOUR CIRCULATORY SYSTEM

Use 2nd Grade Big Book to help w/ this paper!!

Your heart pumps blood to all parts of your body.





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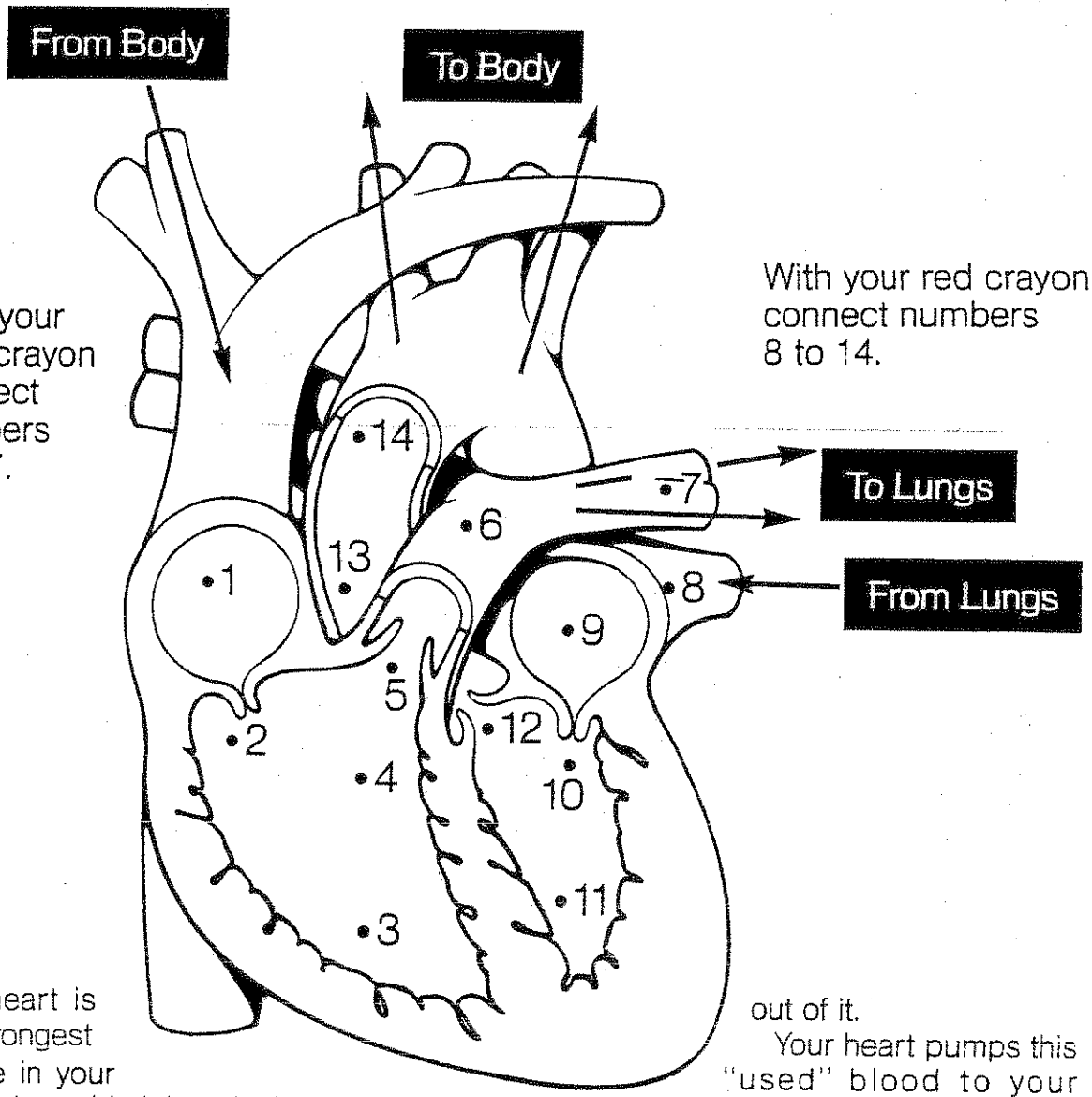

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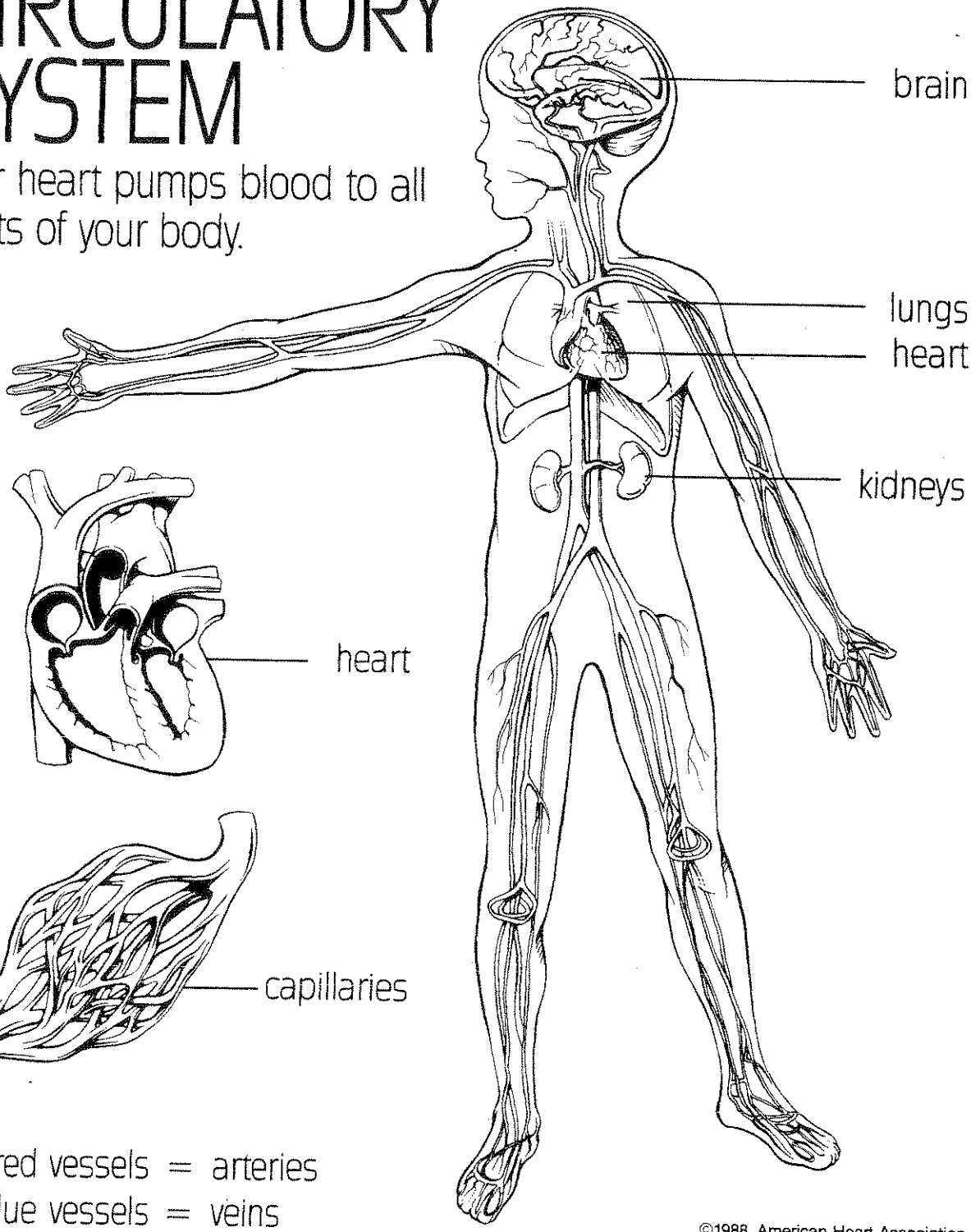

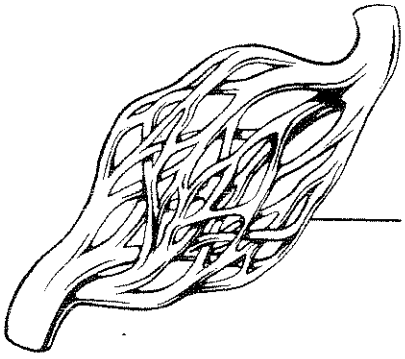

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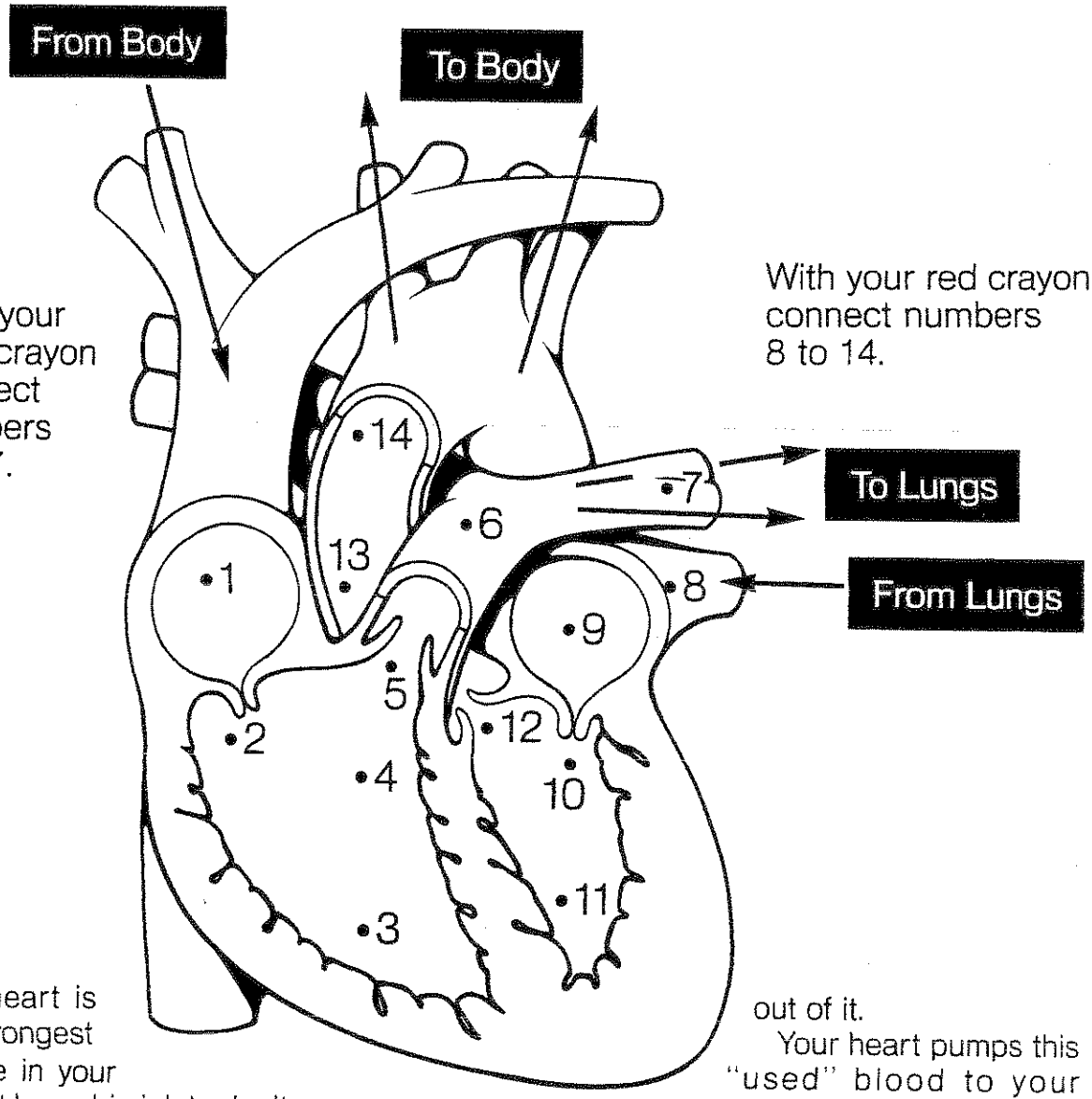

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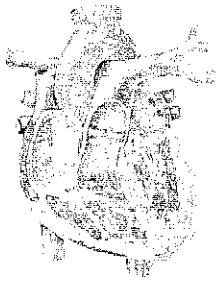
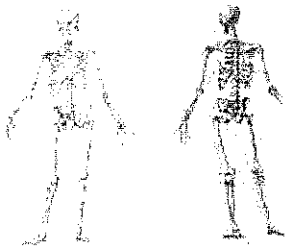


The Human Body



The human body is made up of a head, neck, torso, two arms and two legs. The average height of an adult human is about 5 to 6 feet tall. The human body is made to stand erect, walk on two feet, use the arms to carry and lift, and has opposable thumbs (able to grasp).

The adult body is made up of:

100 trillion cells
206 bones
600 muscles
22 internal organs

There are many systems in the human body:

Circulatory System (heart, blood, vessels)
Respiratory System (nose, trachea, lungs)
Immune System (many types of protein, cells, organs, tissues)
Skeletal System (bones)
Excretory System (lungs, large intestine, kidneys)
Urinary System (bladder, kidneys)
Muscular System (muscles)
Endocrine System (glands)
Digestive System (mouth, esophogus, stomach, intestines)
Nervous System (brain, spinal cord, nerves)
Reproductive System (male and female reproductive organs)
Integumentary System (skin)

For more facts go to: www.kidskonnect.com

Click on Subjects and choose Health. Now you can choose any system of the human body to explore more interesting facts about.

Your Heart & Circulatory System

Did you give your friends valentines and little heart-shaped candies on Valentine's Day? Do you ever cross your heart when making a promise that you really, really mean? Or turn on the radio to hear a guy singing about his broken heart?

We see and hear about hearts everywhere. A long time ago, people even thought that their emotions came from their hearts, maybe because the heart beats faster when a person is scared or excited. Now we know that emotions come from the brain, and in this case, the brain tells the heart to speed up. So what's the heart up to, then? How does it keep busy? What does it look like? Let's find out.

Working That Muscle

Your heart is really a muscle. It's located a little to the left of the middle of your chest, and it's about the size of your fist. There are lots of muscles all over your body — in your arms, in your legs, in your back, even in your behind.

But the heart muscle is special because of what it does. The heart sends blood around your body. The blood provides your body with the oxygen and nutrients it needs. It also carries away waste.

Your heart is sort of like a pump, or two pumps in one. The right side of your heart receives blood from the body and pumps it to the lungs. The left side of the heart does the exact opposite: It receives blood from the lungs and pumps it out to the body.

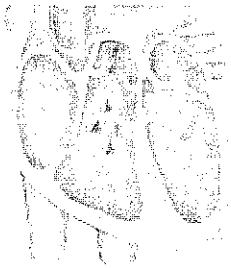
We Got the Beat

How does the heart beat? Before each beat, your heart fills with blood. Then its muscle contracts to squirt the blood along. When the heart contracts, it squeezes — try squeezing your hand into a fist. That's sort of like what your heart does so it can squirt out the blood. Your heart does this all day and all night, all the time. The heart is one hard worker!

Heart Parts

The heart is made up of four different blood-filled areas, and each of these areas is called a chamber. There are two chambers on each side of the heart. One chamber is on the top and one chamber is on the bottom. The two chambers on top are called the **atria** (say: **ay**-tree-uh). If you're talking only about one, call it an **atrium**. The atria are the chambers that fill with the blood returning to the heart from the body and lungs. The heart has a left atrium and a right atrium.

The two chambers on the bottom are called the **ventricles** (say: **ven**-trih-kulz). The heart has a left ventricle and a right ventricle. Their job is to squirt out the blood to the body and lungs. Running down the middle



of the heart is a thick wall of muscle called the **septum** (say: **sep**-tum). The septum's job is to separate the left side and the right side of the heart.

The atria and ventricles work as a team — the atria fill with blood, then dump it into the ventricles. The ventricles then squeeze, pumping blood out of the heart. While the ventricles are squeezing, the atria refill and get ready for the next contraction. So when the blood gets pumped, how does it know which way to go?

Well, your blood relies on four special valves inside the heart. A valve lets something in and keeps it there by closing — think of walking through a door. The door shuts behind you and keeps you from going backward.

Two of the heart valves are the **mitral** (say: **my**-trul) **valve** and the **tricuspid** (say: try-**kus**-pid) **valve**. They let blood flow from the atria to the ventricles. The other two are called the **aortic** (say: ay-**or**-tik) **valve** and **pulmonary** (say: **pul**-muh-ner-ee) **valve**, and they're in charge of controlling the flow as the blood leaves the heart. These valves all work to keep the blood flowing forward. They open up to let the blood move ahead, then they close quickly to keep the blood from flowing backward.

It's Great to Circulate

You probably guessed that the blood just doesn't slosh around your body once it leaves the heart. It moves through many tubes called arteries and veins, which together are called **blood vessels**. These blood vessels are attached to the heart. The blood vessels that carry blood away from the heart are called arteries. The ones that carry blood back to the heart are called veins.

The movement of the blood through the heart and around the body is called **circulation** (say: sur-kyoo-**lay**-shun), and your heart is really good at it — it takes less than 60 seconds to pump blood to every cell in your body.

Your body needs this steady supply of blood to keep it working right. Blood delivers oxygen to all the body's cells. To stay alive, a person needs healthy, living cells. Without oxygen, these cells would die. If that oxygen-rich blood doesn't circulate as it should, a person could die.

The left side of your heart sends that oxygen-rich blood out to the body. The body takes the oxygen out of the blood and uses it in your body's cells. When the cells use the oxygen, they make carbon dioxide and other stuff that gets carried away by the blood. It's like the blood delivers lunch to the cells and then has to pick up the trash!

The returning blood enters the right side of the heart. The right ventricle pumps the blood to the lungs for a little freshening up. In the lungs, carbon dioxide is removed from the blood and sent out of the body when we exhale. What's next? An inhale, of course, and a fresh breath of oxygen that can enter the blood to start the process again. And remember, it all happens in about a minute!

Listen to the Lub-Dub

When you go for a checkup, your doctor uses a stethoscope to listen carefully to your heart. A healthy heart makes a lub-dub sound with each beat. This sound comes from the valves shutting on the blood inside the heart.

The first sound (the lub) happens when the mitral and tricuspid valves close. The next sound (the dub) happens when the aortic and pulmonary valves close after the blood has been squeezed out of the heart. Next time you go to the doctor, ask if you can listen to the lub-dub, too.

Pretty Cool — It's My Pulse!

Even though your heart is inside you, there is a cool way to know it's working from the outside. It's your pulse. You can find your pulse by lightly pressing on the skin anywhere there's a large artery running just beneath your skin. Two good places to find it are on the side of your neck and the inside of your wrist, just below the thumb.

You'll know that you've found your pulse when you can feel a small beat under your skin. Each beat is caused by the contraction (squeezing) of your heart. If you want to find out what your heart rate is, use a watch with a second hand and count how many beats you feel in 1 minute. When you are resting, you will probably feel between 70 and 100 beats per minute.

When you run around a lot, your body needs a lot more oxygen-filled blood. Your heart pumps faster to supply the oxygen-filled blood that your body needs. You may even feel your heart pounding in your chest. Try running in place or jumping rope for a few minutes and taking your pulse again — now how many beats do you count in 1 minute?

Keep Your Heart Happy

Most kids are born with a healthy heart and it's important to keep yours in good shape. Here are some things that you can do to help keep your heart happy:

- Remember that your heart is a muscle. If you want it to be strong, you need to exercise it. How do you do it? By being active in a way that gets you huffing and puffing, like jumping rope, dancing, or playing basketball. Try to be active every day for at least 30 minutes! An hour would be even better for your heart!
- Eat a variety of healthy foods and avoid foods high in unhealthy fats, such as saturated fats and trans fats (reading the labels on foods can help you figure out if your favorite snacks contain these unhealthy ingredients).
- Try to eat at least five servings of fruits and vegetables each day.
- Avoid sugary soft drinks and fruit drinks.
- Don't smoke. It can damage the heart and blood vessels.

So now you know that your heart doesn't look like a valentine, but it sure deserves to be loved for all the work it does. It started pumping blood before you were born and will continue pumping throughout your whole life.

Reviewed by: Gina Baffa, MD
Date reviewed: June 2008

Cardiovascular System Word Find

Directions: Print out the word find. See how many words you can find from the list below.

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

WORD BANK

ARTERIES	BLOOD	NUTRIENTS	VEINS
ATRIUM	CIRCULATION	OXYGEN	VENTRICLES
BEAT	HEART	VALVES	WASTE

Click here **for answers.**