

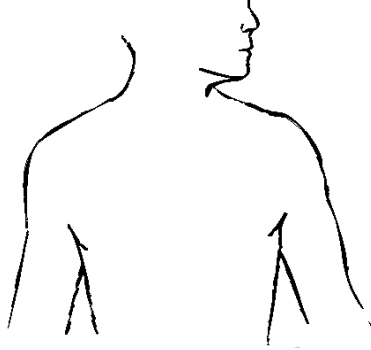
CIRCULATORY WEBQUEST

L.E. Biology

(PART I: Introduction, Parts of the Heart, and Pathway of Blood)

<http://www.smm.org/heart/heart/steth.htm>

1. Where is your heart located? Use the stethoscope to find the location of the heartbeat and place a star on the body below where the heart is located.

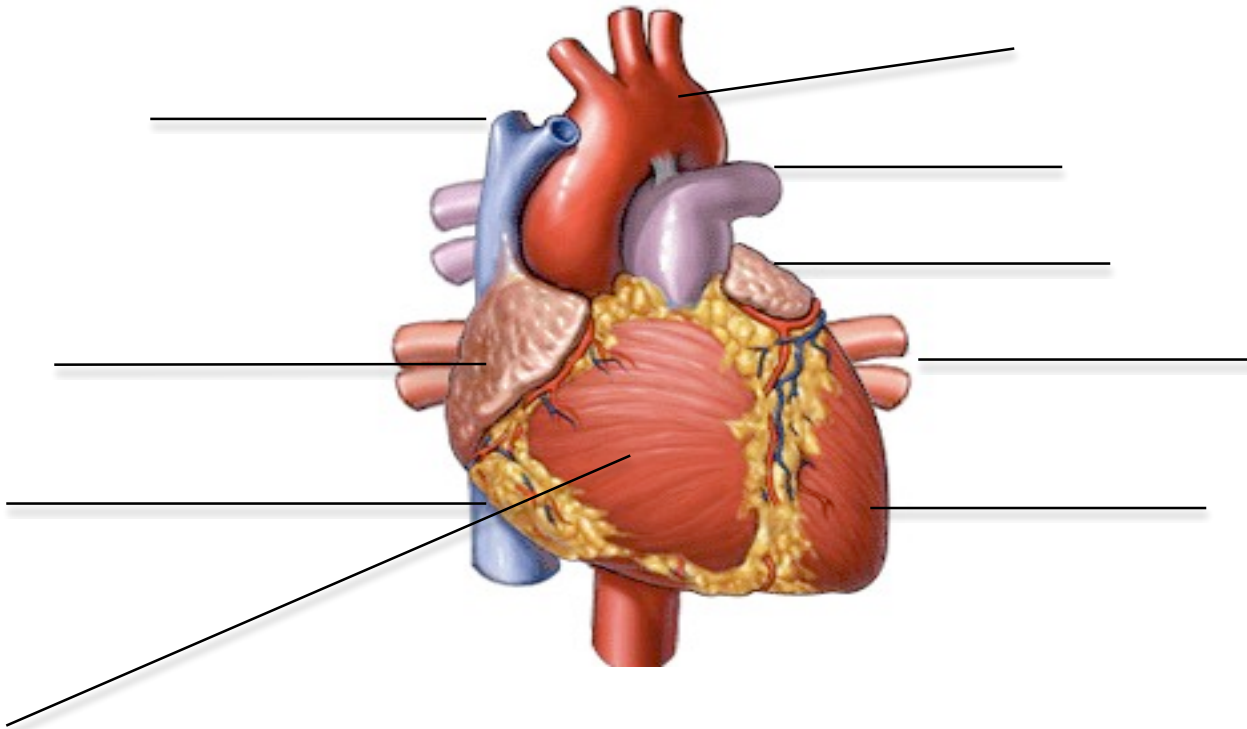


<http://www.smm.org/heart/heart/circ.htm>

2. Observe the heart pumping blood. Which additional organ works with your circulatory system to give oxygen to all of your cells? _____

<http://www.nucleusinc.com/animation2.php>

3. Roll your cursor over the heart to IDENTIFY the parts of the human heart! **In addition, circle the part with a BLUE pen or pencil to represent DEOXYGENATED BLOOD and use a RED pen or pencil to represent OXYGENATED BLOOD.**



WORD BANK:

Superior Vena Cava
Inferior Vena Cava
Left Atrium

Left Ventricle
Right Ventricle
Pulmonary Vein

Right Atrium
Aorta
Pulmonary Artery

4. Flash Cards on Parts of the Heart

<http://quizlet.com/1969655/parts-of-the-heart-and-their-functions-flash-cards/>

Step One: View the flash cards several times.

Step Two: Press on the box that is titled "LEARN." Try to type in the correct term that matches each description.

Step Three: Press on the box that is titled "TEST." When you are done with the test, record the number of questions you had that were correct and the number that were incorrect. In addition, have your teacher sign the box that says "Completed Practice Test."

Number of Questions Correct _____/14

Number of Questions Incorrect _____/14

Completed Practice Test (Teacher's Signature)

NOTE: You do not need to know all of the terms in this activity. See the list below:

Terms you ARE responsible for:

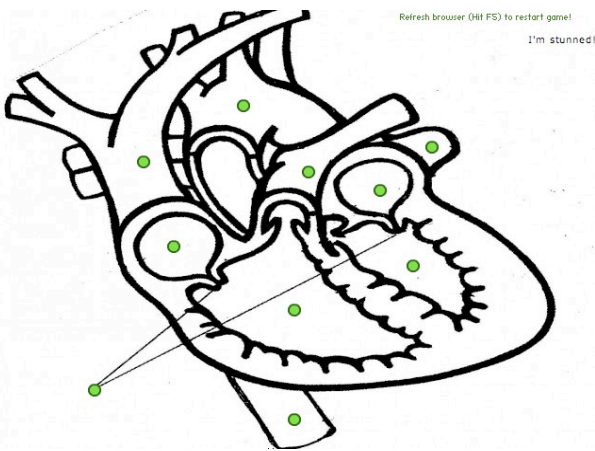
Aorta	Pulmonary Vein
Pulmonary Artery	Left Ventricle
Oxygenated	Right Ventricle
Deoxygenated	Arteries
Right Atrium	Veins
Vena Cava	

Terms you are NOT responsible for:

Coronary Vessels
Bicuspid Valve
Tricuspid Valve

<http://www.purposegames.com/game/label-the-hearts-parts-quiz>

5. Practice will make perfect! Play the game to identify the parts of the heart below. **NOTE:** You must click on "START" first! Call over Ms. Jantzi or Mr Fortney and a prize will be awarded to the student who can do it the fastest with 100% accuracy!



How long did the game take you?

(Does not matter how long as long as you can identify all of the parts!)

http://kidshealth.org/parent/general/body_basics/heart.html

About the Heart and Circulatory System

6. What are the three main parts of the circulatory system?

A. _____

B. _____

C. _____

7. In class, during brain pop, we learned about three types of circulation. This website does not discuss **coronary circulation**, the type of circulation movement of blood in and around the heart. Define the other types of circulation discussed on the site.

Pulmonary Circulation: _____

Systemic Circulation: _____

Click on "Body Basics: Heart" View the animation of blood flow through the heart and fill in the blanks below.

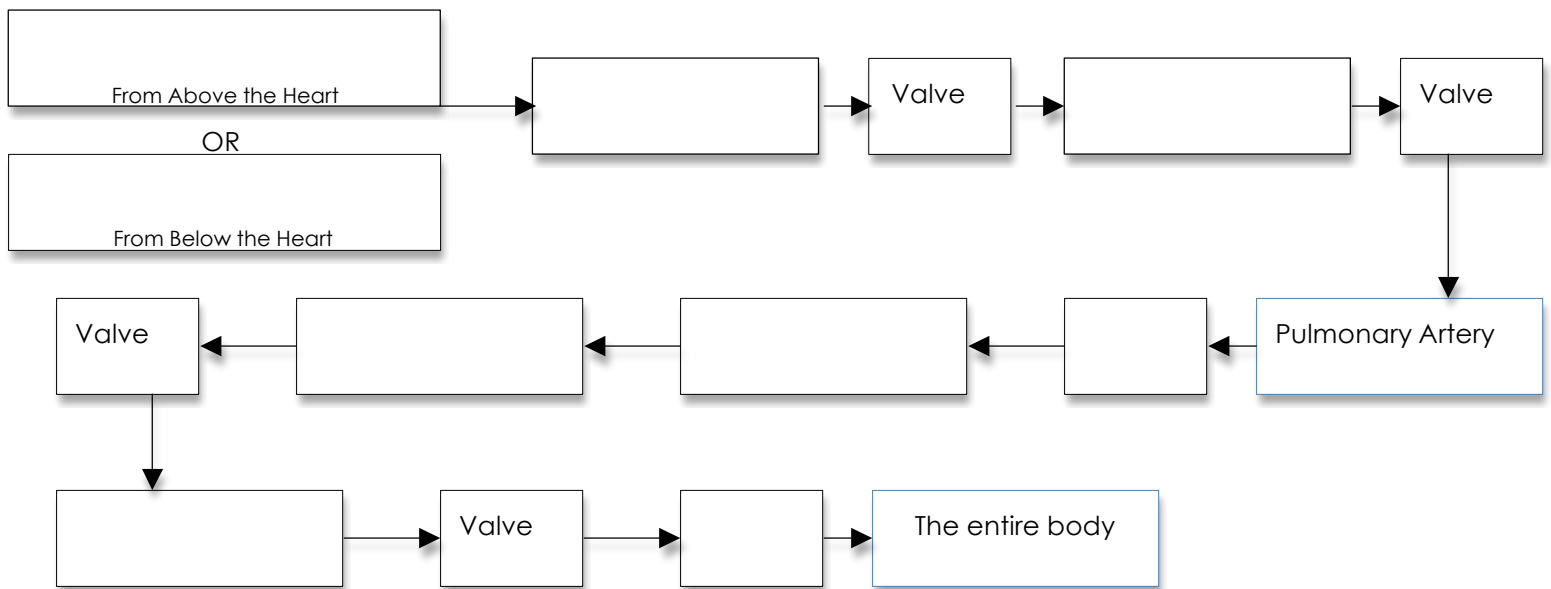
When blood circulates in the body, it enters the heart through the _____, [asses through to the _____, and flows out through the _____ to the _____-where it picks up _____ and gets rid of _____. From the lungs, blood returns to the _____ and enters the _____ where it is pumped to the body through the _____.

http://www.youtube.com/watch?v=mH0QTWzU-xl&safety_mode=true&persist_safety_mode=1&safe=active

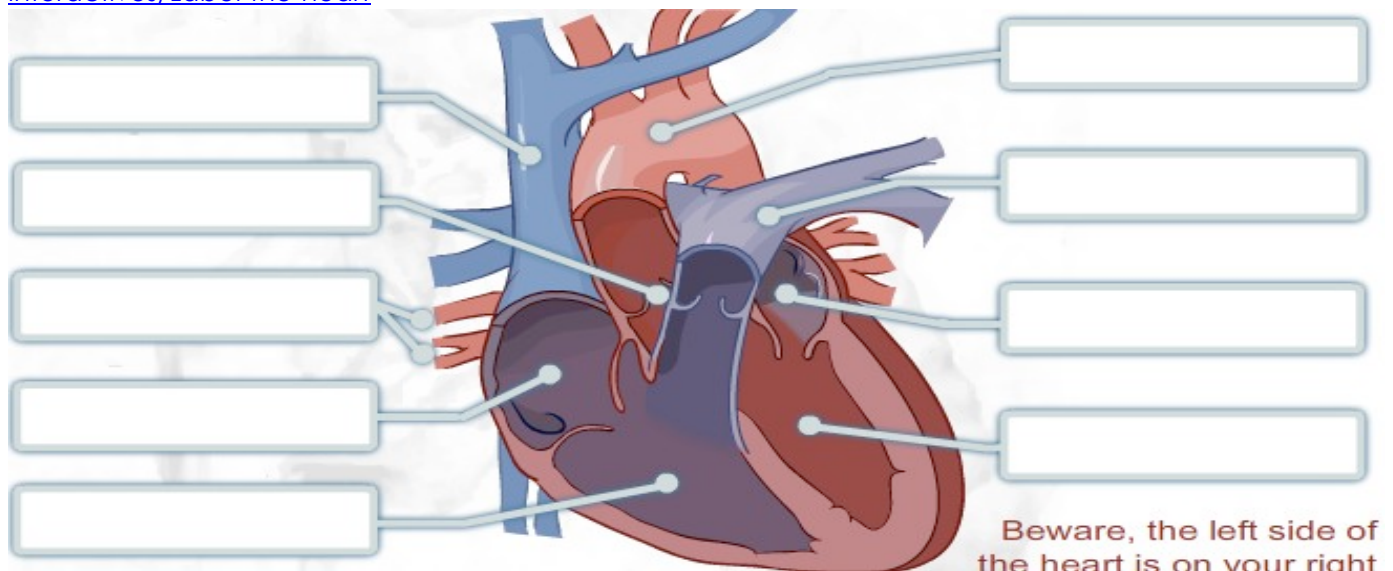
http://www.youtube.com/watch?v=FCimR_P9ID0&feature=related&safety_mode=true&persist_safety_mode=1&safe=active

<http://www.heartpoint.com/theheart.html>

Watch the videos above on the pathway of blood. Write out the flow of blood from the time it enters the heart to the time it leaves the heart. In addition, outline each box with a red or blue pen/colored pencil to show low levels of oxygen (BLUE) and high levels of oxygen (RED).



<http://www.sciencelearn.org.nz/Contexts/See-through-Body/Sci-Media/Animations-and-Interactives/Label-the-heart>



PART II: Blood Pressure & Blood Vessels

<http://www.lifeclinic.com/focus/blood/whatisit.asp>

What is Blood Pressure?

1. Blood is carried from the heart to all parts of your body in vessels called _____.
2. **Blood pressure** is the force of the blood _____
_____.
3. Your blood pressure is at its _____ when the heart _____,
pumping the blood. This is called _____.
4. When the heart is at _____, between _____, your blood pressure
_____. This is the _____.
5. How is blood pressure written?
 - A. With one number, the systolic pressure
 - B. With one number, the diastolic pressure
 - C. With two numbers, the diastolic pressure over the systolic pressure
 - D. With two numbers, the systolic over the diastolic pressure
6. What blood pressure is considered normal? _____ Any blood pressure above _____
is considered too _____.
7. Scroll down to "Do you have white coat hypertension?" What is this condition? Explain. _____

<http://www.webmd.com/hypertension-high-blood-pressure/guide/blood-pressure-causes>

What causes high blood pressure? List four causes and identify if any of these causes are preventable or controllable.

Cause	Preventable (Yes or No)

<http://www.neok12.com/php/watch.php?v=zX7152787e557e671b564073&t=Circulatory-System>

Watch the video on the types of blood vessels. If the video is not working, you will have to refer to your notes or research each answer.

1. Arteries contain blood that is
 - a. high in oxygen.
 - b. low in oxygen.
 - c. both high and low in oxygen.
2. Arteries carry blood
 - a. away from the heart.
 - b. to the heart.
 - c. both away and to the heart.
3. The smallest blood vessel is the
 - a. vein
 - b. artery
 - c. capillary

Part III: Blood

http://www.e-learningforkids.org/Courses/Liquid_Animation/Body_Parts/Blood/index.html

1. Be a scientist and take a closer look at the components of blood! Click on each cell to find out more about it and answer the questions below. Note: You will have to click "Replay" to view the function of each part of blood.

Component (Part) of Blood	Job	What do they look like?
Red Blood Cells		
White Blood Cells (Monocytes/Macrophages)		
Platelets		

See the facts below the blood vessel to answer the questions below.

1. Where are blood cells made? _____
2. **True or False:** White blood cells can leave the blood vessels and travel into your tissues. Why would this be an advantage? _____

3. What are the four blood types?

A.

B.

C.

D.

4. Which blood type is most common? _____

5. What is "blood count?" _____

Click on "Yucky Bites"

6. What is in pus? _____

7. Why does blood taste salty? _____

http://www.wisc-online.com/objects/index_tj.asp?objID=AP14604

RED BLOOD CELLS

1. Blood is called the "River of _____" because it carries:
2. _____ is the FLUID COMPONENT of blood and makes up _____%.
3. _____ makes up the remaining percentage of blood.

4. Red Blood Cells are also known as _____. What is their main function? _____
5. How are Red Blood Cells designed to perform this function? _____
6. What is HYPOXIA or CYONOTIC mean? _____
7. How long do Red Blood Cells live for? _____

http://www.wisc-online.com/objects/index_tj.asp?objID=AP14704

WHITE BLOOD CELLS

1. White blood cells are also known as _____.
2. Almost all blood cells are formed from _____, a type of stem cell found in the _____.
3. White blood cells called **MACROPHAGES**, perform **PHAGOCYTOSIS**...what is this process? _____

Draw a picture to support your answer:

http://www.medindia.net/know_ur_body/cirsystem.asp

DID YOU KNOW?

1. Every second, _____ are destroyed in the human body.
2. Human blood is _____. It is the _____; a pigment present in the _____ that is responsible for the _____ color of the blood.
3. _____ is nothing but the sound produced by the closure of _____ of the heart when the blood is pushed through its chamber.
4. A _____'s heart beat is faster than that of a _____'s.
5. The human heart continues to _____ even after it is taken out of the body or cut in to pieces.

<http://www.sciencekids.co.nz/sciencefacts/humanbody/blood.html>

Facts About Blood

1. Blood makes up around _____ of the weight of a human body.
2. Blood contains _____, _____ and _____.
3. These blood cells float in a yellow liquid called blood _____. Blood _____ is made up of _____ water and also contains various nutrients, electrolytes, gases, proteins, glucose and hormones.

