Name: _____ Period: _____

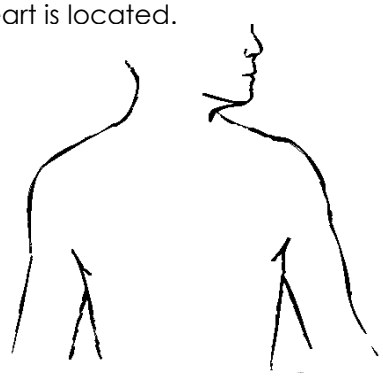
THE CIRCULATORY & RESPIRATORY SYSTEM WEBQUEST

VISIT: **webquesters.weebly.com** - click on the corresponding links to complete this webquest.

Let's start with the circulatory system!

A 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.

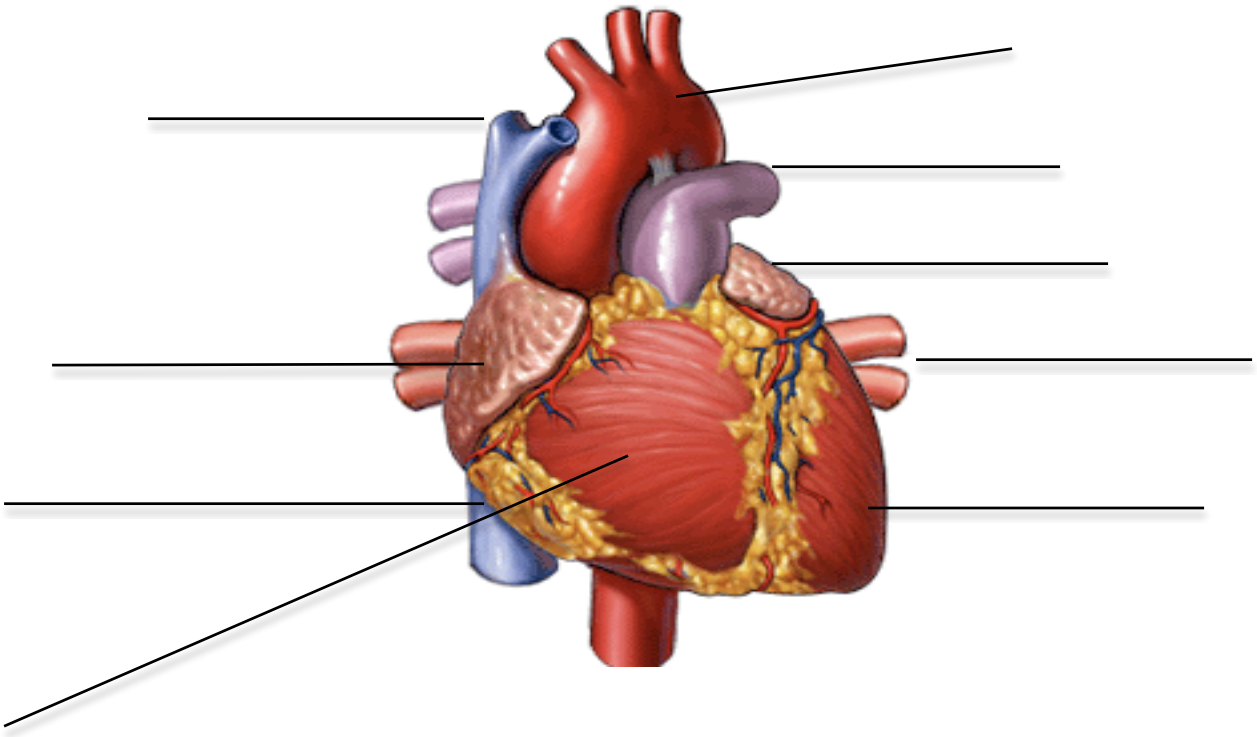


B http://www.smm.org/heart/heart/circ.htm

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

C http://www.nucleusinc.com/animation2.php

3. Roll your cursor over the heart to IDENTIFY the parts of the human heart!



WORD BANK:

Superior Vena Cava	Left Ventricle	Right Atrium
Inferior Vena Cava	Right Ventricle	Aorta
Left Atrium	Pulmonary Vein	Pulmonary Artery

4. Flash Cards on Parts of the Heart

D 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 where correct and the number that where 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:

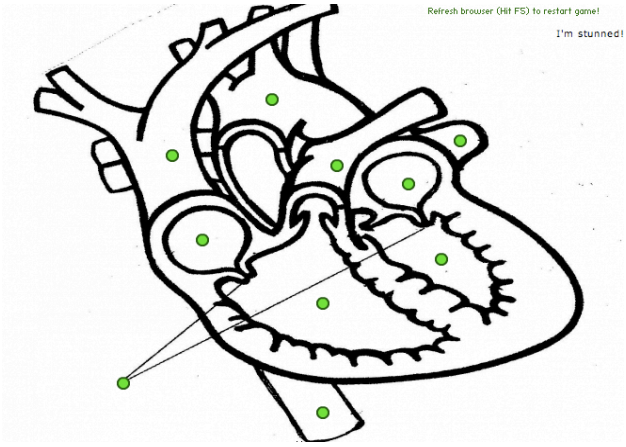
Aorta
Pulmonary Artery
Oxygenated
Deoxygenated
Right Atrium
Vena Cava
Pulmonary Vein
Left Ventricle
Right Ventricle
Arteries
Veins

Terms you are NOT responsible for:

Coronary Vessels
Bicuspid Valve
Tricuspid Valve

E 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, record your time score in the box. Let your partner have a turn too!



How long did the game take you?
(Does not matter how long as long as you can identify all of the parts!)

_____

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

About the Heart and Circulatory System

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

A. _____ B. _____

7. Define the two types of circulation in the human body.

Pulmonary Circulation: _____

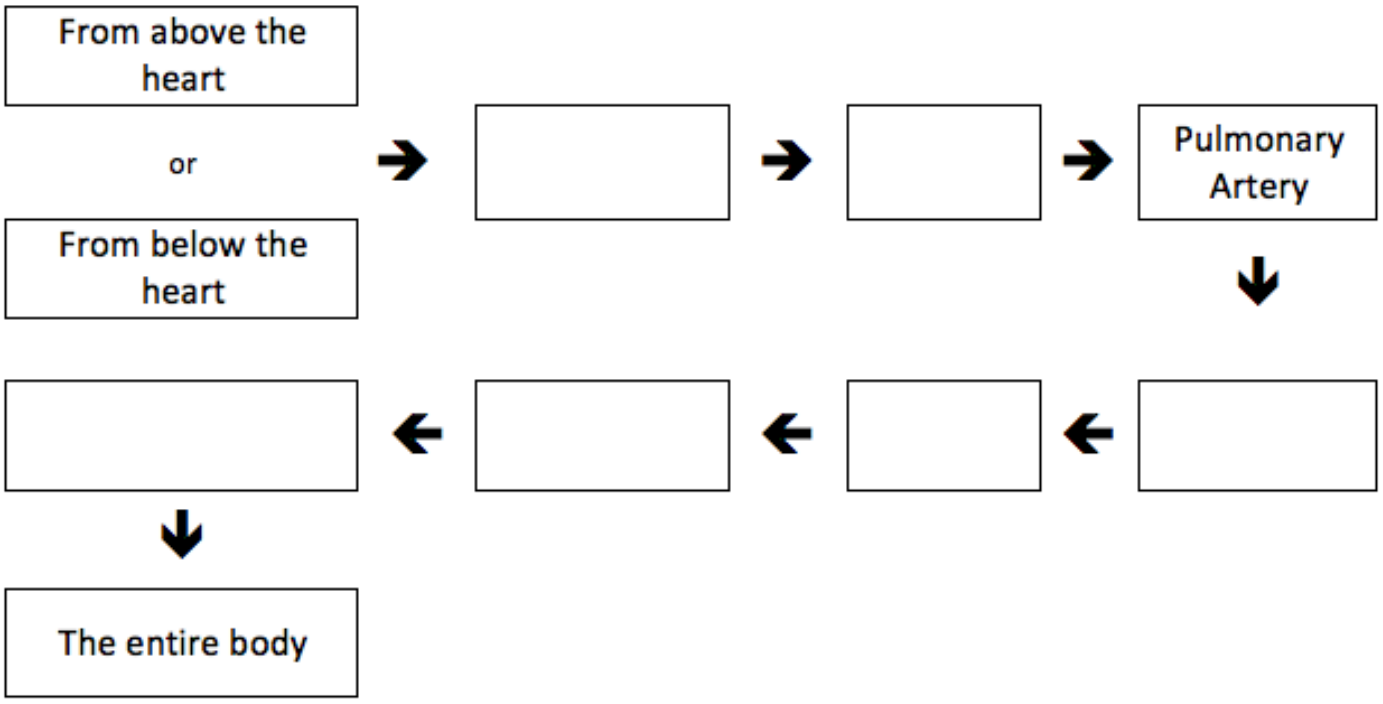
Systemic Circulation: _____

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 _____, passes 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 _____.

G http://www.aboutkidshealth.ca/En/HowTheBodyWorks/IntroductiontotheHeart/TheHeartbeat/Pages/BloodFlowThroughtheHeart.aspx

Watch the animation on the pathway of blood. Read the text below the animation to 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).



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

Click "Let's Go!"
Click on "Blood Pressure"

1. Why can having low blood pressure be just as dangerous as having high blood pressure? _____

_____

Click "Main Menu"
Click "Arteries"

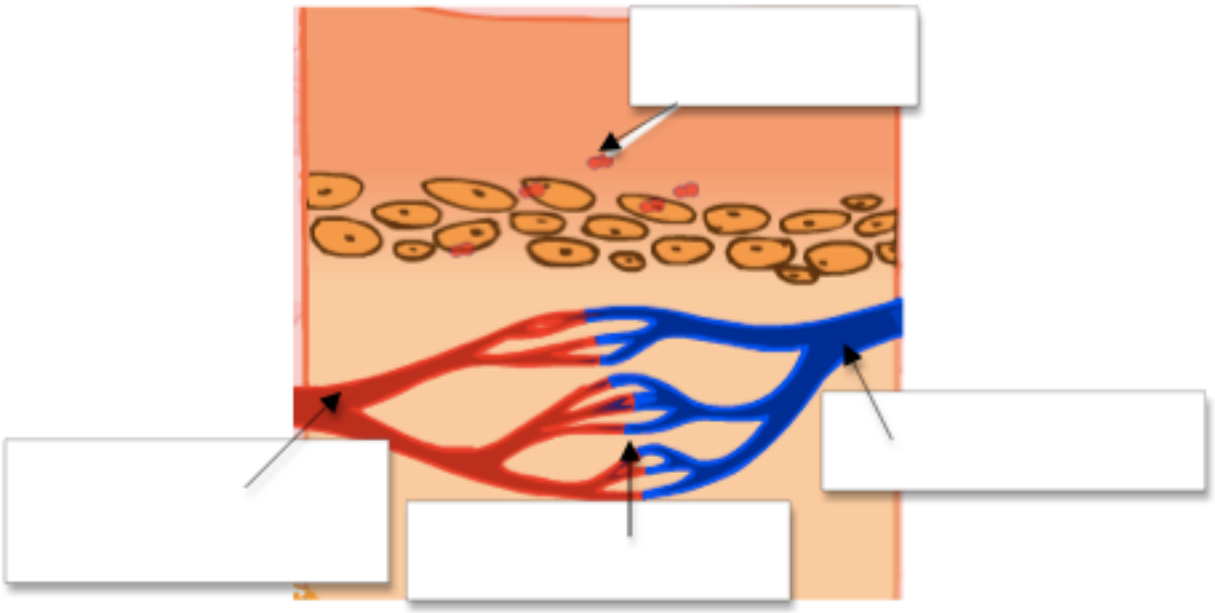
2. Why is the blood in your arteries bright red? _____

3. As arteries get farther and farther away from the heart they get smaller and smaller and branch into tiny blood vessels called _____.

Click "Main Menu"
Click "Capillaries"

4. What is the function of capillaries in your body? _____

5. Label the diagram below:



6. Why does the blood change color as it leaves the capillaries? _____

_____

Click "Main Menu"
Click "Veins"

7. Veins collect blood from _____ and bring it back to the heart.

8. Why is the blood in veins dark red (blue)? _____

9. Inside your veins there is _____ pressure.
a. high b. low

Now, it is time to see how much you have learned!
Take the quiz below on the blood vessels found in your body!

<u>Quiz on Blood Vessels</u>

Good Luck!

Fill-in the Correct Answer Codes

1	Which is the largest vein in the human body?	A	Capillaries
2	Which type of blood vessels have thin non-elastic walls & carry blood back to the heart?	B	Pulmonary
3	All arteries carry oxygen-rich blood except for which artery?	C	Veins
4	Which type of blood vessels contain valves to prevent the back-flow of blood?	D	Arteries
5	Which type of blood vessels have thick elastic walls & carry blood away from the heart?	E	Aorta
6	Which is the largest artery in the human body?	F	Inferior vena cava
7	Which blood vessels allow exchange of gases and nutrients between blood and the body cells?	G	Capillaries
8	Name the tiny, thin-walled blood vessels that connect arteries and veins?	H	Veins

All about blood

I 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 findout more about it and answer the questions below. Note: You will have to click "Main Menu" to view the function of each part of blood.

Component (Part) of Blood	Function	What do they look like?
Red Blood Cells		
White Blood Cells (Monocytes/Maccrophages)		
Lymphocytes		
Basophil		
Platelets		

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

Click on red-yellow circle "where is blood made?"

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? _____

_____

Click on blood bag type "A"

3. What are the four blood types?

A._____ B. _____ C. _____ D. _____

4. Which blood type is most common? _____

Click on blood test tube

5. What is "blood count?" _____

Click on "Yukky Bits"

6. What is in pus? _____

7. Why does blood taste salty? _____

Let's explore the respiratory system!

J http://science.nationalgeographic.com/science/health-and-human-body/human-body/lungs-article/

The Breath of Life-National Geographic

1. Our lungs are, essentially, a network of connected _____ that bring _____ from the air into our _____, nourishing the trillions of cells that make up our bodies. The lungs also _____ the blood of _____ waste created when cells use oxygen. We breathe in _____ times per day!

Click on "Lung Anatomy" at the bottom of the page

2. Using the information in this section, to label the diagram.

Also known as the windpipe
_____

Tiny tubes branching out from bronchi
_____

Larger branches that lead from the trachea are called
_____

Muscle that lies beneath the lungs is called the
_____

Click on "Alveoli"

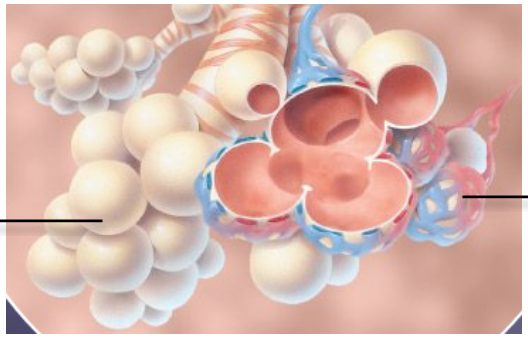
3. What occurs at the alveoli?

A. What is dropped off at the lungs by the blood vessels? _____

B. What is picked up at the lungs by the blood vessels? _____

4. Using the information in this section, to label the diagram.

Tiny air sacs found at the end of the bronchioles are called
_____



These surround the tiny air sacs
_____

Click on "Lung Functions"

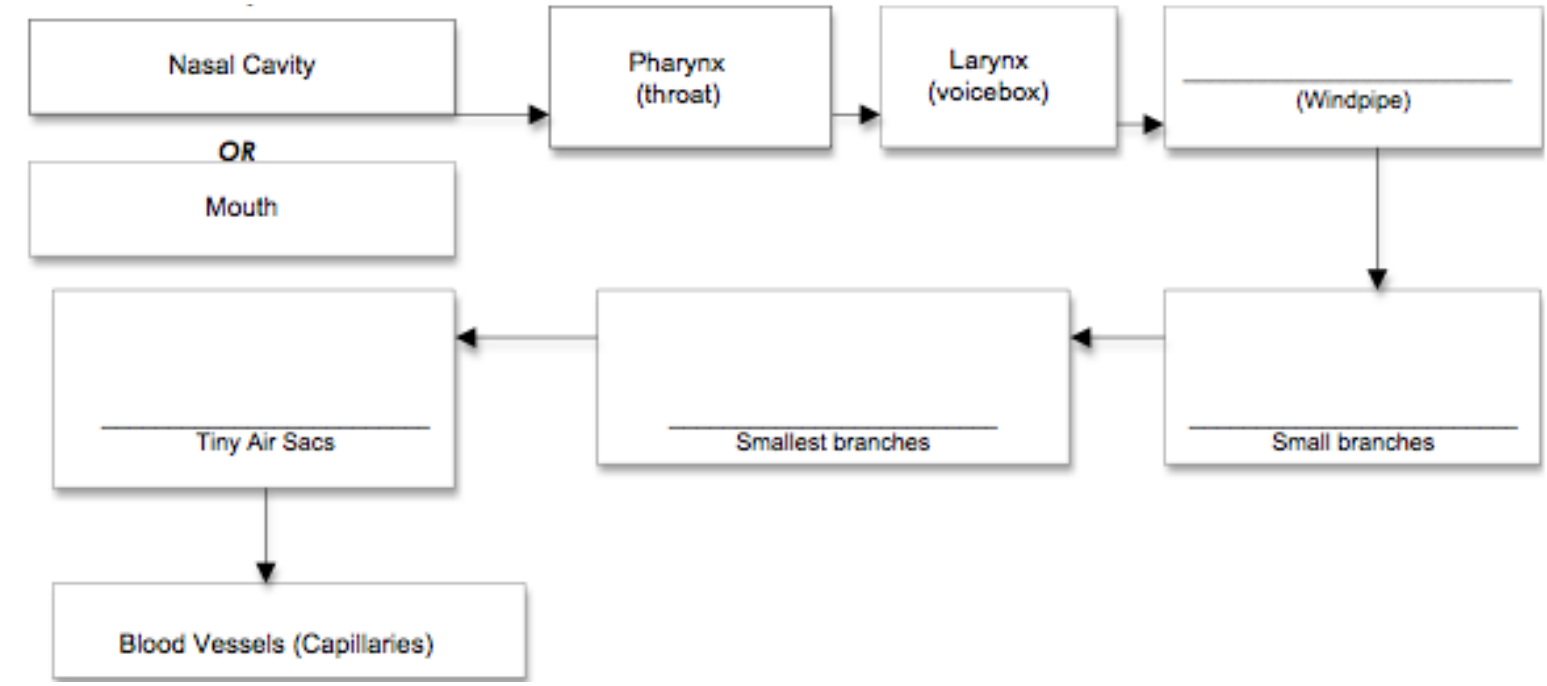
5. What part makes your lungs inflate (expand) and deflate (contract)? _____

6. What happens when the diaphragm is pulled down (Do you inhale or exhale)? _____

7. What gas do you take in when you inhale? _____ When you exhale? _____

8. What happens when the diaphragm relaxes (Do you inhale or exhale)? _____

9. Summarize the pathway of air from the previous page by completing the following flowchart.



K http://www.lung.ca/children/grades7_12/respiratory/respiratory_system.html
SCROLL DOWN and read under the diagram

1. The **nasal cavity** has two functions. One is to _____ the air that is entering and the other is to trap particles in its _____.

2. What is the **epiglottis**? _____

What is the function of the epiglottis? _____

3. What is another name for the **larynx**? _____

Why is this a good nickname for the larynx? _____

_____

L http://kidshealth.org/kid/talk/qa/yawn.html
Fill in the blanks that describe the three hypotheses as to why you may yawn:

Hypothesis #1: We yawn when we are are _____or _____, we just don't breathe as deeply as we usually do. As this theory goes, our bodies take in less _____ because our breathing has _____. Therefore, yawning helps us bring more _____ into the blood and move more _____ out of the blood.

Hypothesis #2: Another theory is that yawning stretches the _____and lung tissue. Stretching and yawning may be a way to flex muscles and joints, increase heart rate, and feel _____.

Hypothesis #3: The people believe that yawning is a _____ _____ to redistribute the oil-like substance called _____ that helps keep lungs lubricated inside and keeps them from _____. So, if we didn't yawn, according to this theory, taking a deep breath would become _____ and _____ — and that would not be good!

M ***http://kidshealth.org/kid/talk/qa/sneeze.html*** ***Solve some everyday mysteries about SNEEZING!***

1. Why do you sneeze?_____

2. TRUE or FALSE: The only muscles involved in a sneeze are the chest and abdominal muscles.

3. TRUE or FALSE: A photic sneezer sneezes when exposed to bright light.

4. Write out a summary of another fact you find interesting: _____

_____

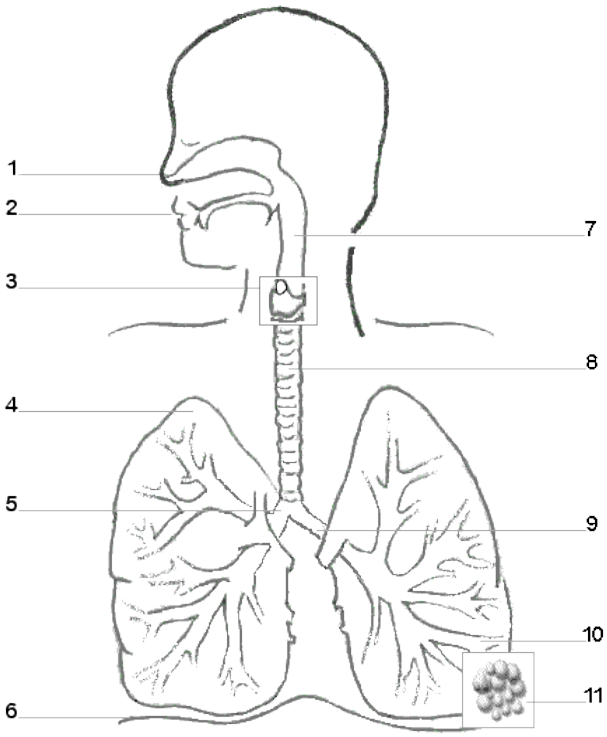
_____

_____

FINAL CHECK!

Label all of the parts of the respiratory system shown below. In addition, use arrows to show where the oxygen flows from outside the human body until it reaches the capillaries.

Part #	Name of Part
1	
2	
3 Voicebox	
4	Lung
5 Will have the same name as #9	
6	
7	
8	
9	
10 Smallest Branches	
11	



1. Bronchi carries air into the _____.

2. At the end of each bronchiole, there are clusters of tiny sacs called _____.

3. Where does the exchange of oxygen and carbon dioxide takes place?

   _____ and _____.

4. What is the muscle beneath your lungs that helps to move air in and out of the lungs? _____

5. What is the flap of tissue that prevents food from entering the trachea and lungs? _____