CIRCULATORY WEBQUEST

(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?

3. 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  Left Ventricle  Right Atrium
Inferior Vena Cava  Right Ventricle  Aorta
Left Atrium         Pulmonary Vein  Pulmonary Artery
4. Flash Cards on Parts of the Heart
**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 Artery
- Oxygenated
- Deoxygenated
- Right Atrium
- Vena Cava
- Pulmonary Vein
- Left Ventricle
- Arteries
- Veins

**Terms you are NOT responsible for:**
- Coronary Vessels
- Bicuspid Valve
- Tricuspid Valve

5. Practice will make perfect! Play the game to identify the parts of the heart below. **NOTE:** You must click on "START" first!

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

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 ___________________, 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 _____________.

http://www.youtube.com/watch?v=mH0QTWzU-xl&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).

PART II: Blood Pressure & Blood Vessels

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. ____________

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

<table>
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<tr>
<th>Cause</th>
<th>Preventable (Yes or No)</th>
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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
4. Which blood vessel is the site of diffusion, where oxygen is dropped off and carbon dioxide is picked up?
   a. artery          b. capillary          c. vein

5. Veins contain blood that is
   a. high in oxygen.      b. low in oxygen.      c. both high and low in oxygen.

6. Veins carry blood
   a. away from the heart. b. to the heart. c. both away and to the heart.

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 "Replay"
   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 "Replay"
   Click "Capillaries"

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

5. Label the diagram below:

6. Why does the capillary change color as it passes buy your body cells? ____________________________
Click "Replay"
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!
Quiz on Blood Vessels

1. Which is the largest vein in the human body?

2. Which type of blood vessels have thin non-elastic walls & carry blood back to the heart?

3. All arteries carry oxygen-rich blood except for which artery?

4. Which type of blood vessels contain valves to prevent the back-flow of blood?

5. Which type of blood vessels have thick elastic walls & carry blood away from the heart?

6. Which is the largest artery in the human body?

7. Which blood vessels allow exchange of gases and nutrients between blood and the body cells?

8. Name the tiny, thin-walled blood vessels that connect arteries and veins?

Good Luck!