Name _____ Date _____ Class Period _____

Blood Flow Sequence

Trace the blood flow through the heart, and learn the names of important parts of the sequence. Try to follow the pathway of blood shown in **Figure 1.4.**

The Pathway of Blood to and from the Heart

1. Blood that has circulated through the body, which has lost its oxygen and collected carbon dioxide, enters through the vena cava into the right atrium of the heart.
2. The right atrium contracts and pumps the blood through the tricuspid valve and into the right ventricle.
3. The right ventricle then pumps blood through the pulmonary artery into the lungs.
4. In the lungs, tiny blood vessels called capillaries absorb carbon dioxide from the blood and replace it with oxygen.
5. Oxygenated blood then flows through the pulmonary vein and into the left atrium.
6. Oxygenated blood then pumps through the mitral valve and into the left ventricle.
7. The left side of the heart contracts the strongest to send blood out the left ventricle and through the aortic arch on its way to all parts of the body. At this point, there are a few options for the blood flow: blood can be pumped
   - through the carotid artery and into the brain.
   - through the auxiliary arteries and into the arms.
   - through the aorta and into the torso and legs.
8. Blood will then move through the arteries, then through capillaries, and then return through the veins.
9. Deoxygenated blood (blood without oxygen) will then return to the heart.
10. The cycle repeats.

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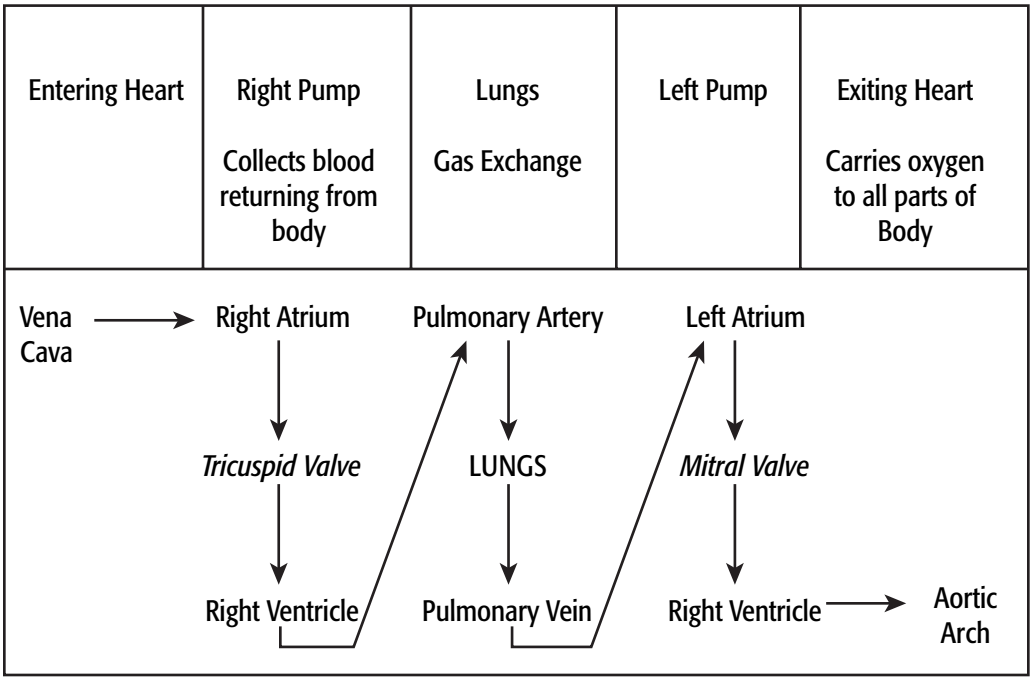
Figure 1.4



Hint: to help you remember arteries and veins
A (arteries) – Away Blood is moving away from the heart.
V (veins) – Toward Blood is moving toward the heart.
Capillaries are small blood vessels that connect the arteries and veins.

Blood Flow Sequence Activity

The purpose of this activity is to understand the sequence of blood flow through the heart, lungs, and body. **Figure 1.5** illustrates different parts of the heart involved in the blood flow sequence.

Students will develop their own challenge or obstacle course to indicate the blood flow sequence. Partners or small groups may construct a part of the sequence. Make a drawing of the challenge course. For the actual activity, use jump ropes, hurdles, cones, and other objects to indicate the different parts of the system. Also, decide the sequence for using these objects. See if you can complete the challenge course three times while saying the name and function of each part of your sequence.

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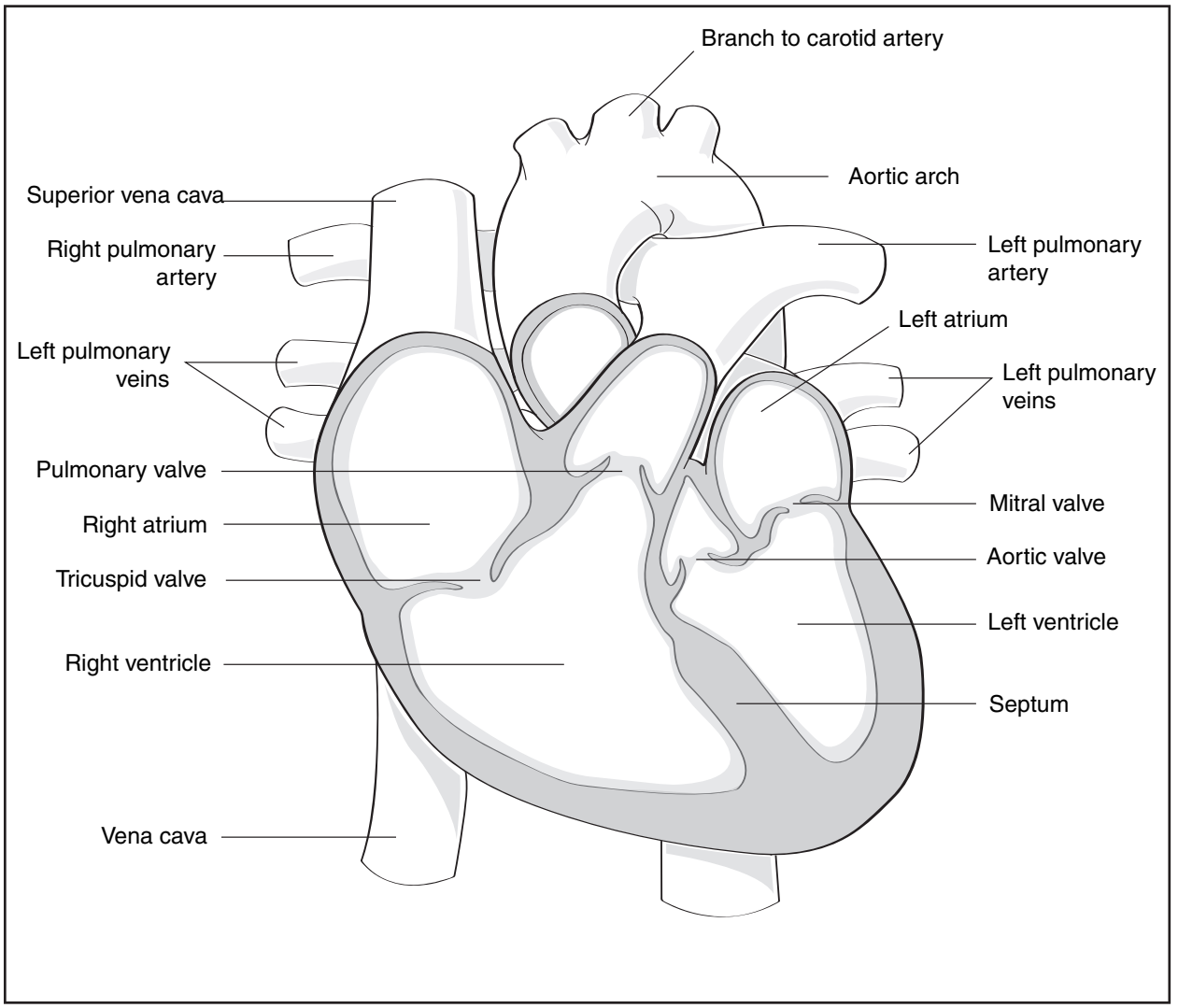
Evaluation

Look at the parts of the heart in **Figure 1.5**, and describe the importance of that part of the heart on the next page.

Figure 1.5



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1. vena cava _____
2. right atrium _____
3. tricuspid valve _____
4. right ventricle _____
5. pulmonary artery _____
6. lungs _____
7. pulmonary vein _____
8. left atrium _____
9. mitral valve _____
10. left ventricle _____
11. aortic arch _____
12. arteries _____
13. capillaries _____
14. veins _____
15. Why must the heart contract very strongly to pump blood from the left ventricle into the aorta?

_____

_____