

Science 9-Biology Assignment on the Heart



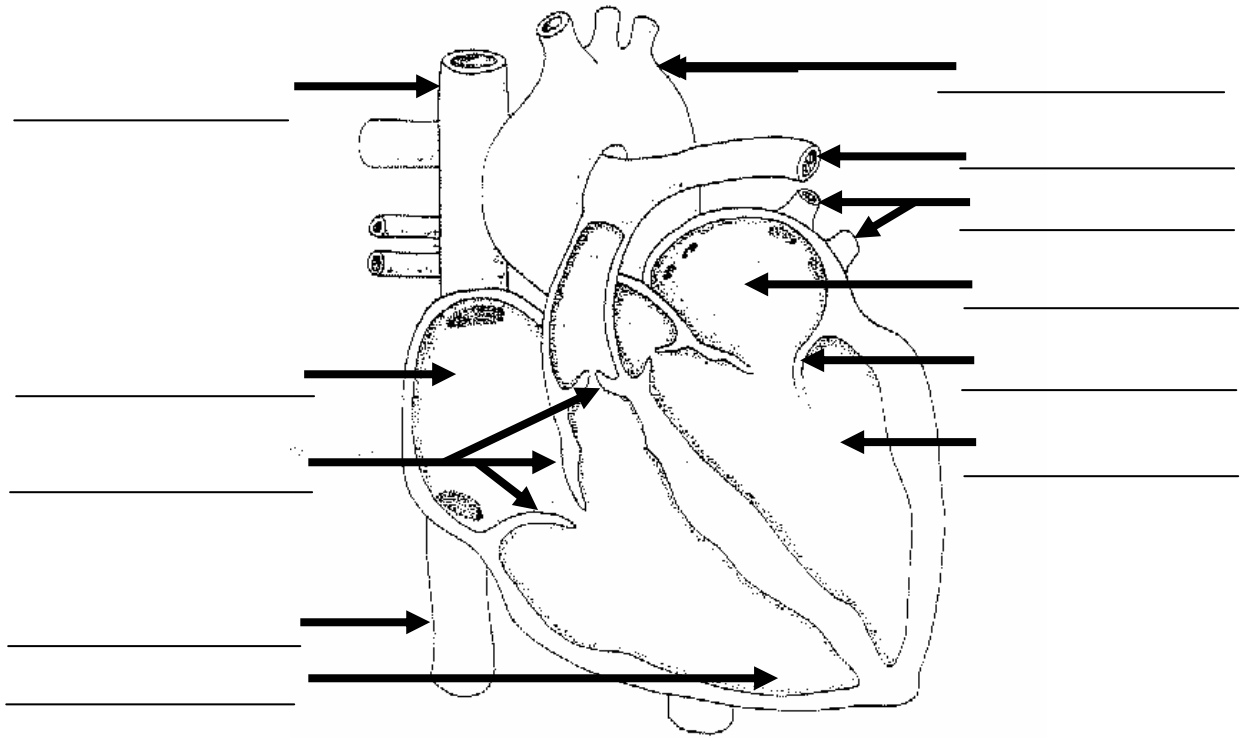
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Name _____
Due Date _____
Show Me <input type="checkbox"/> Hand In <input type="checkbox"/>
Correct and Hand In Again By _____



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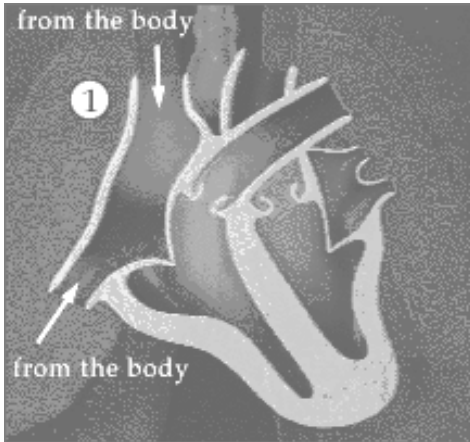
Read pages 179-182 of SP to help you with the following:

1. Label the following diagram of the heart. Use the diagram on page 180 as a guide.

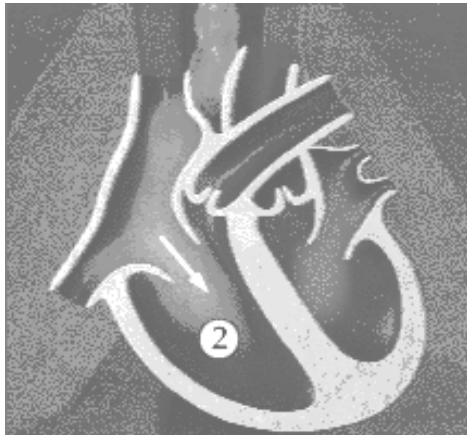


2. The two chambers at the top of the heart are called _____
The two chambers at the bottom of the heart are called _____

3. Log on to a computer and visit the site <http://www.pbs.org/wgbh/nova/heart/heartmap.html>. A link to this can also be found on the Science 9 Webpage in the right column of the Biology page. Carefully read the 5 steps and study what happens at each one of the 6 steps in this animation. Beside each picture, write what is happening. Use the  & the  to stop and start the animation to get a better look at each stage.



1. See Web or #1 on p. 181 Science Probe

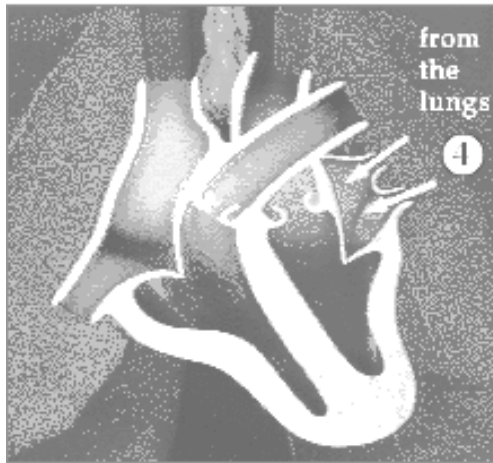


2. See Web or #2 on p. 181 Science Probe



3. See Web or #3 & #4 on p. 181 Science Probe

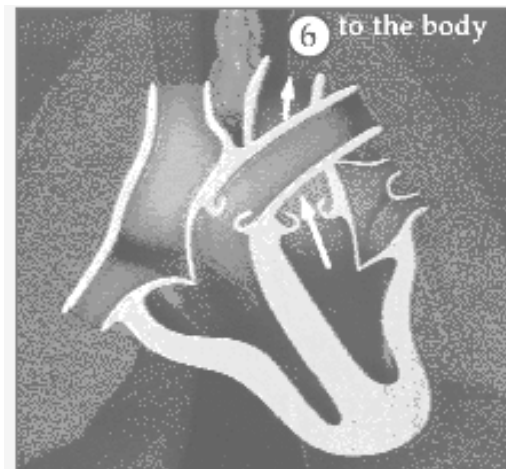
In each of the diagrams 1, 2 & 3 above colour the **oxygen poor** (deoxygenated) blood **blue**



4. See Web or #5 on p. 181 Science Probe



5. See Web or #6 on p. 182 Science Probe



6. See Web or #7 on p. 182 Science Probe

In each of the diagrams 4, 5 and 6 above colour the **oxygen rich** (oxygenated) blood **red**

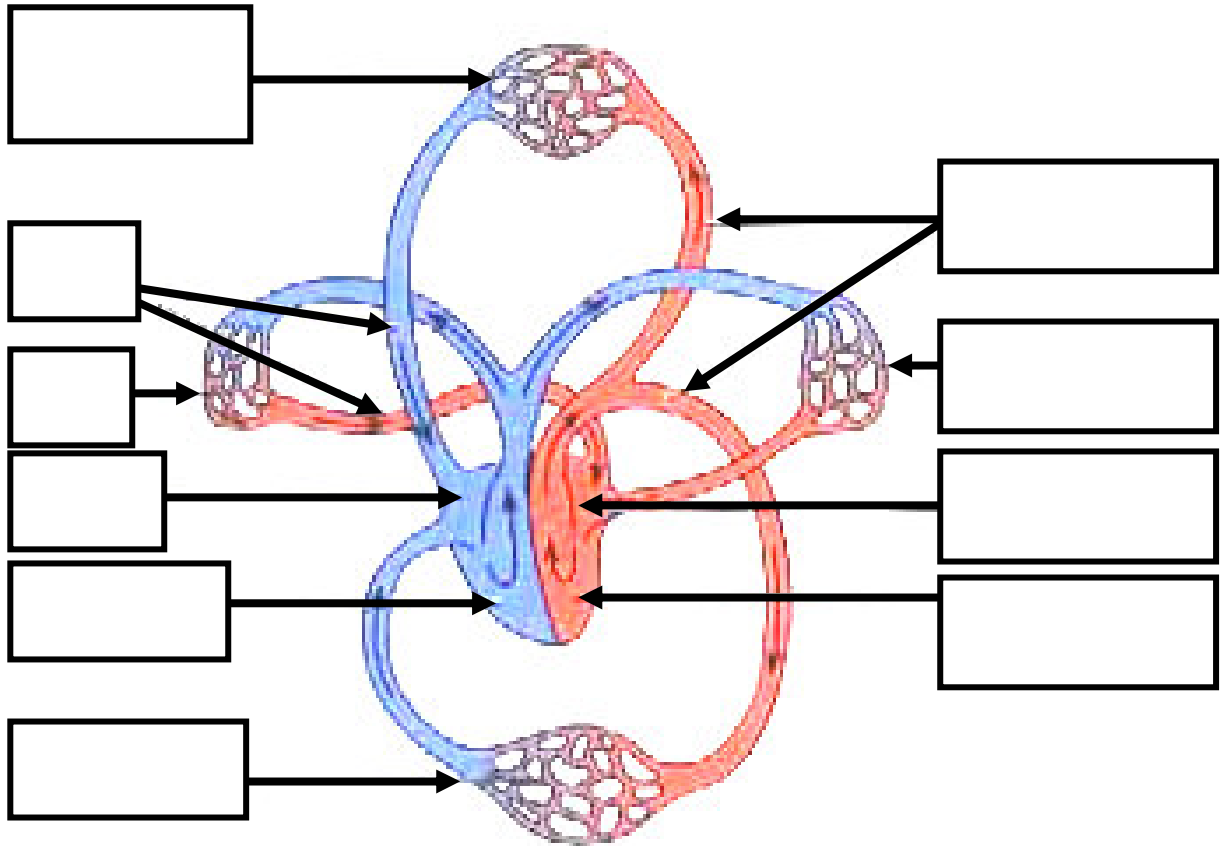
Read page 180-182 of the Science Probe Text and answer the following questions.

4. When the muscles of the two **atria** contract, blood is forced into the _____ below.
5. What prevents blood from moving from the **ventricles** back to the atria? _____

6. When the ventricles contract, they push blood into the _____ of the body.
7. Why are the muscles surrounding the ventricles thicker than those surrounding the atria?

8. **Deoxygenated blood** is pushed into the lungs by the _____ **ventricle**. The artery carrying blood **to** the lungs is called the _____ **artery**.
9. Blood coming **from** the lungs is said to be _____ **ated** and it is a _____ colour.
Blood is carried **from** the lungs to the left atrium of the heart by the _____ **veins**.
10. Blood vessels carrying blood **away from the heart** are called _____ and blood vessels carrying blood **toward the heart** are called _____.
11. In the lungs blood **releases** _____ and **picks up** _____.
12. The large **artery** that the **left ventricle** pushes blood into is called the _____.
13. In the body, arteries branch into smaller arteries and into very small blood vessels called _____ . Here the blood **releases** _____ to body cells and **picks up** _____.

14. Colour the deoxygenated blood **blue** and the oxygenated blood **red** and label all of the entries on the following diagram. See page 182 of Science Probe for help.



15. What are **coronary arteries**? _____

What can happen when the coronary arteries become clogged with plaque or cholesterol?

16. Can the heart muscle absorb oxygen directly from the blood passing through it? _____

17. Your _____ system automatically changes your heart rate to keep up with the demand of your body.