



Student Handout

In the following handout, students will be required to:

- Record their heart rates and make a graph
- Label a diagram with the main parts of the heart

Provided in this document are cards listing the main parts of the heart (page 2) which should be cut and used to label the Cardiac Pop Pump model. Also in this document are sample answers (page 3-4), and a blank handout (pages 5-7). The blank handout should be made available to each group prior to the activity.

The following cards can be cut out and used to label the Cardiac Pop Pump model.

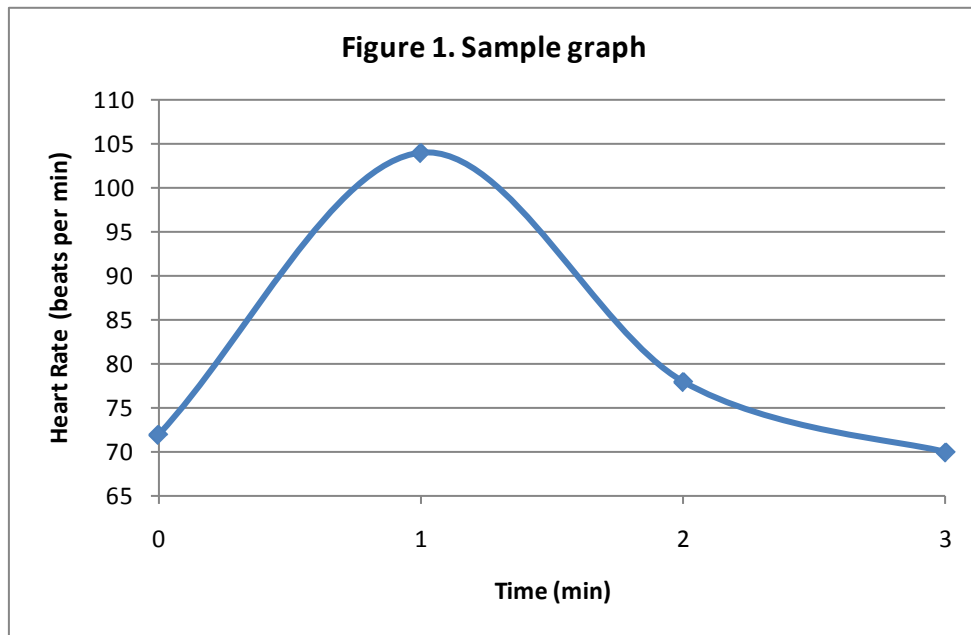
LEFT ATRIUM	RIGHT ATRIUM
LEFT VENTRICLE	RIGHT VENTRICLE
PULMONARY VEIN	PULMONARY ARTERY
VENA CAVA	AORTA
LUNGS	

Student Handout - Answers

The following handout has been filled in with some sample data.

Time after Exercise (min)	Number of Heart Beats in 30 seconds	Heart Rate (beats per min) (previous column x 2)
0 (initial heart rate before exercise)	<u>36</u>	<u>72</u>
1 (right after exercise)	<u>52</u>	<u>104</u>
2	<u>39</u>	<u>78</u>
3	<u>35</u>	<u>70</u>

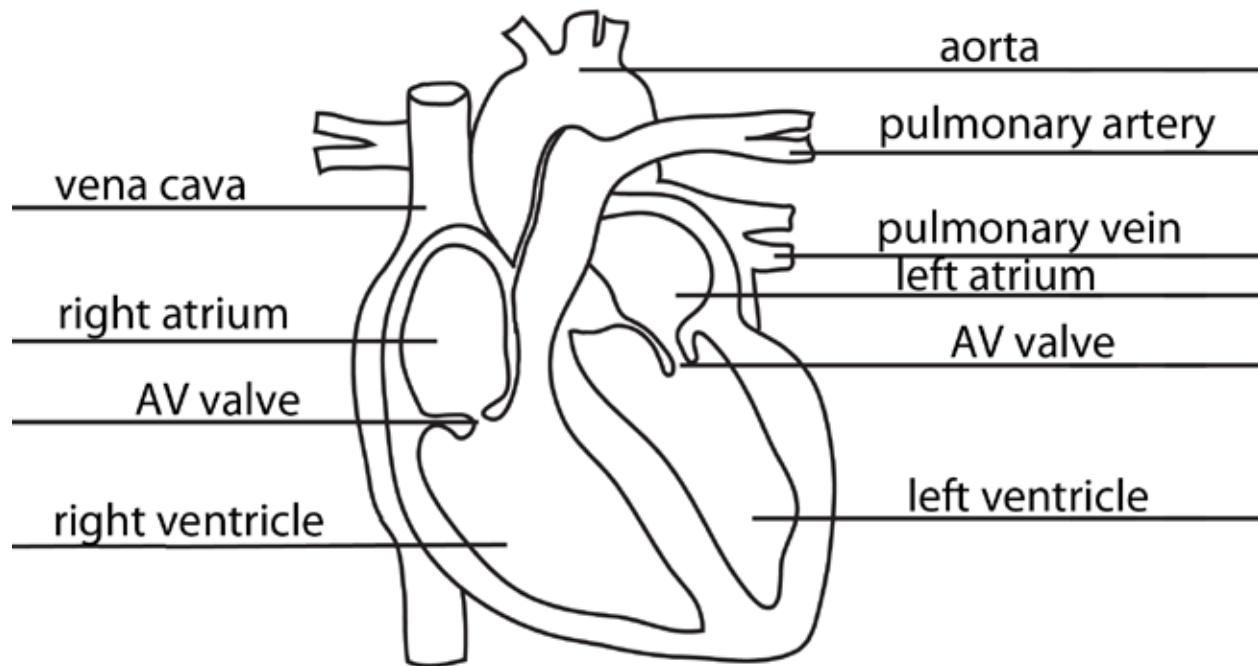
Use the data in the above table to make a line graph of your heart rate over time.

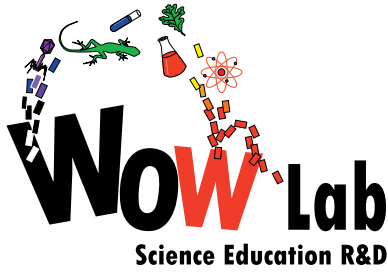


Cardiac Pop Pump - Handout Answers

Label the diagram of the circulatory system using the following terms:

aorta, atrioventricular (AV) valves, left atrium, left ventricle, pulmonary artery, pulmonary vein, right atrium, right ventricle, vena cava.





Student Handout

Fill in the following table with measurements of your heart rate.

Time after Exercise (min)	Number of Heart Beats in 30 seconds	Heart Rate (beats per min) (previous column x 2)
0 (initial heart rate before exercise)		
1 (right after exercise)		
2		
3		

Use the data in the above table to make a line graph of your heart rate over time.



a WOW Lab
BLUEPRINT

Cardiac Pop Pump - Student Handout

Using the following definitions, label the parts of the diagram of the circulatory system on the next page:

Aorta - major artery in the circulatory system that transports oxygenated blood from the left ventricle to other parts of the body.

Atrioventricular (AV) valve - valves between the atria and the ventricles. The mitral valve and the tricuspid valve are the AV valves.

Left atrium - an upper chamber of the heart. Blood entering the left atrium comes from the lungs.

Left ventricle - a lower chamber of the heart. Blood entering the left ventricle comes from the left atrium.

Pulmonary artery - an artery that takes deoxygenated blood from the right ventricle to the lungs.

Pulmonary vein - a vein that takes oxygenated blood from the lungs to the left atrium.

Right atrium - an upper chamber of the heart. Blood entering the right atrium comes from the upper body.

Right ventricle - a lower chamber of the heart. Blood entering the right ventricle comes from the right atrium.

Vena cava - a vein that takes deoxygenated blood from the body into the right atrium of the heart.

Label the diagram of the circulatory system using the following terms:

aorta, atrioventricular (AV) valves, left atrium, left ventricle, pulmonary artery, pulmonary vein, right atrium, right ventricle, vena cava.

