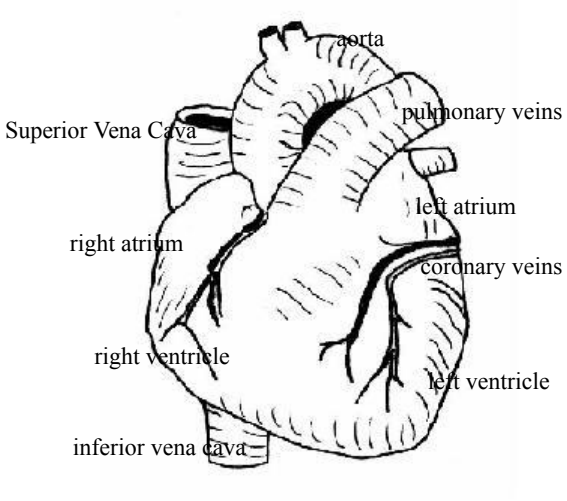
Heart Worksheet

4.1 & 4.5 Classwork and Evaluation

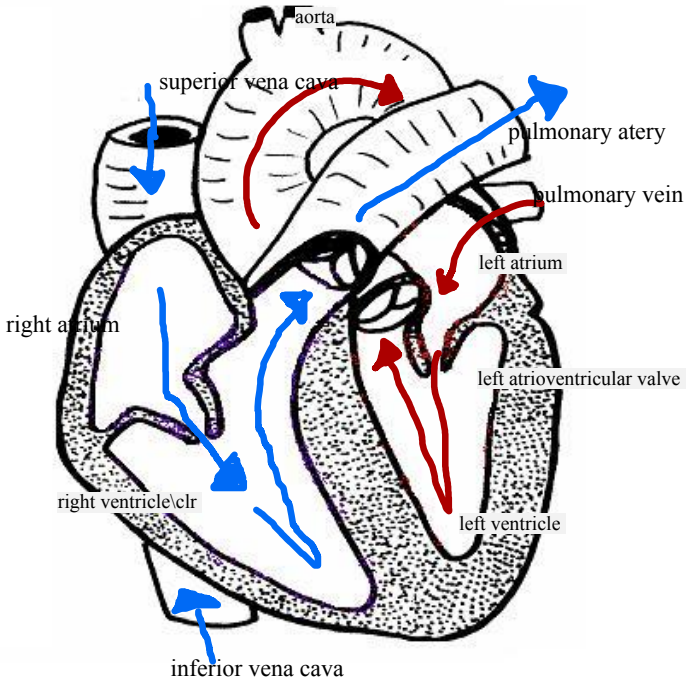
1. The diagram below shows an external view of the mammalian heart. Show the positions of the following structures on the diagram.

Right atrium, left atrium, right ventricle, left ventricle, aorta, inferior vena cava, **Pulmonary artery, coronary artery, superior vena cava**.



2. The diagram below shows a section through the heart seen from the same direction as the external view in question 1

a) Label the following structures:
right atrium, left atrium, right ventricle, left ventricles, inferior vena cava, superior vena cava, aorta, pulmonary artery, pulmonary vein,
tricuspid valve, mitral valve
b) On the diagram of the heart shown above indicate the direction of blood flow through the heart. Use red to show the pathway of oxygen-rich blood and blue the pathway of oxygen-poor blood.



3. Choose terms from the list to complete the sentences below.
atria; right hand side; vena cava; ventricles; valves; pulmonary artery; veins; arteries; left hand side; aorta, coronary artery;

- The top two chambers of the heart are called atria.
- These structures stop blood flowing backwards into the atria. valves
- This side of the heart receives oxygenated blood. Left side

- This is the largest artery in the body. Aorta
- These are blood vessels that carry blood towards the heart. veins
- This blood vessel supplies the heart muscle with oxygenated blood? coronary artery

4. Fill in the name of the blood vessel in the table below using these terms: *pulmonary artery, pulmonary vein, aorta, vena cava.*

Name of blood vessel	Blood?	Walls?	Towards or away from heart
Pulmonary vein	Oxygenated	Thin	Towards
Aorta	Oxygenated	Thick	Away from
Pulmonary artery	Deoxygenated	Thick	Away from
vena cava	Deoxygenated	Thin	Towards

5. Arrange these events in the correct order starting with F.

F A. The left ventricle contracts and blood flows along the aorta to the body
H B. The blood flows through the tricuspid valve into the right ventricle.
B C. Oxygenated blood flows along the pulmonary veins into the left atrium
I D. The blood passes through the mitral valve into the left ventricle
G E. The left atrium contracts
C F. Deoxygenated blood flows from the inferior and superior vena cavae into the right atrium.
E G. The deoxygenated blood picks up oxygen
D H. The right atrium contracts
A I. The right ventricle contracts and blood flows along the pulmonary artery to the lungs

Structure	Pulmonary or Systemic Circulation?	Function
Inferior Vena Cava	systemic circulation (to the body)	Pathway from lower part of body top the heart, right atrium
Superior Vena Cava		Pathway for blood from the upper part of the body top of the heart, right atrium
Right Atrium		collects and holds deoxygenated blood from the body for the right ventricle to pump to the lungs.
Tricuspid Valve		prevents deoxygenated blood from entering the right ventricle until ready
Right Ventricle	Pulmonary circulation (to the lungs)	pumlps deoxygenated blood to lungs
Pulmonary Valve		prevents deoxygenated blood from falling back into the ventricle when its pumped to the lungs
Pulmonary Arteries		carries deoxygenatedn blood to the lungs only artery that carries deoxygenated blood
Pulmonary Veins		carries oxygenated blood to the heart only vein that carry oxygenated blood
Left Atrium		collects and hold oxygenated blood from the lungs for the left ventricle to pump to the lungs
Mitral Valve		prevents oxygenated blood from entering the left ventricle until ready
Left Ventricle	systemic circulation to body	pumps oxygenated blood to the rest of the body
Aortic Valve		prevents oxygenated blood from falling back into the ventricle when its pumped to the body
Aorta		carries oxygenated blood out to the body from the heart
Septum	no circulation	separates right and left ventricle
Myocardium	no circulation	technical name for cardiac muscle