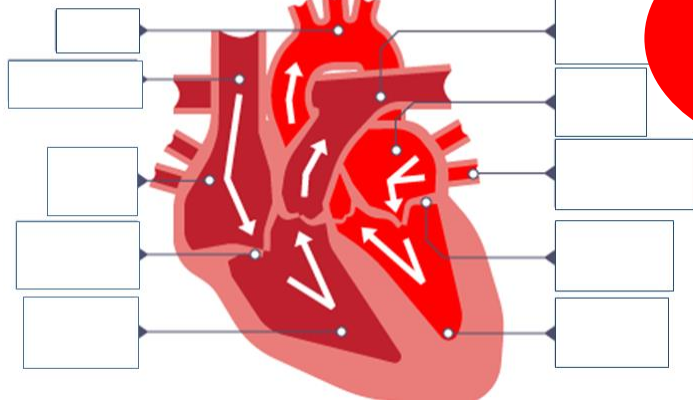


Structure of the heart

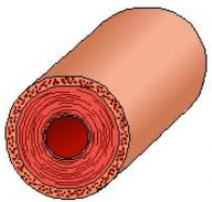
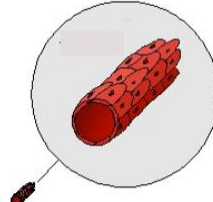


Label the diagram using the following words:

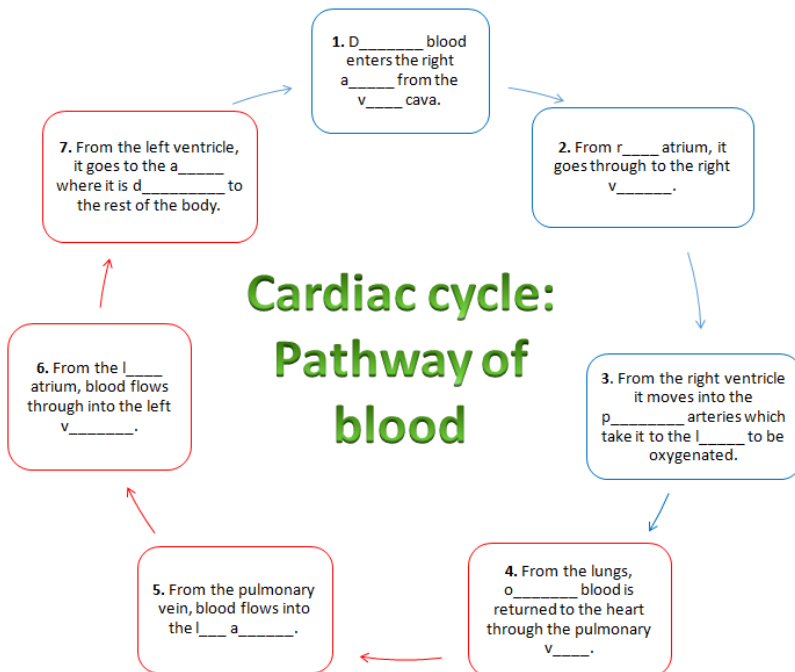
Left ventricle, right ventricle, right atrium, left atrium, vena cava, aorta, pulmonary artery, pulmonary vein, bicuspid valve, tricuspid valve

The Cardiovascular System

The blood vessels

Name:	Name:	Name:
		
Carry o_____ blood a_____ from the heart. Have t_____, strong, elastic walls to cope with the p_____. They have s_____ lumen.	Carry d_____ blood back to the heart. Have t_____ walls, because the blood is a l_____ pressure. Have v_____ to keep the blood going on the right direction. They have a l_____ lumen.	Carry food and o_____ directly to the tissues, and take the waste away from them. Very small, with v_____ t_____ walls to allow gaseous exchange.

Cardiac cycle: Pathway of blood



Cardiac output

Cardiac output is the volume of _____ that the heart is able to _____ out. It is usually measured in _____ per minute. The cardiac output represents the v_____ of oxygenated blood that is delivered to the body. The equation for cardiac output is: $Cardiac\ output\ [Q] = H \times R \times S \times V$

Heart Rate

Heart rate is the number of times your heart ventricles _____ in one minute.

Stroke Volume

Stroke volume is the v_____ of blood _____ out of the heart by each ventricle during one c_____. Stroke volume can be i_____ by the heart contracting with more force and so pushing more blood out with each beat.

CHALLENGE: what happens to cardiac output during exercise?

Blood vessels

Use the following words to fill in the blanks about the blood vessels:

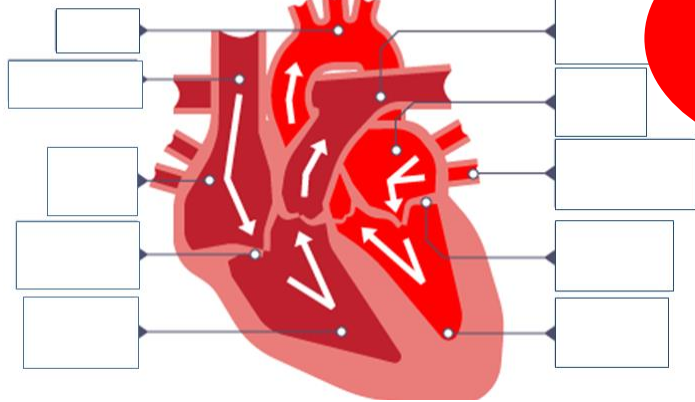
very
deoxygenated
thick
small
oxygen
pressure
lower
oxygenated
thin
large
valves
away
thin

Cardiac output, heart rate and stroke volume

Use the following words to fill in the blanks

volume
litres
pump
beats
contraction
increased
volume
Heart rate
blood
Stroke volume
pumped

Structure of the heart

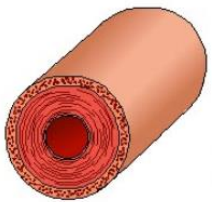
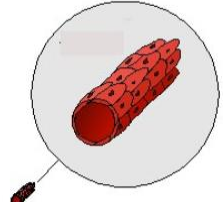


Label the diagram using the following words:

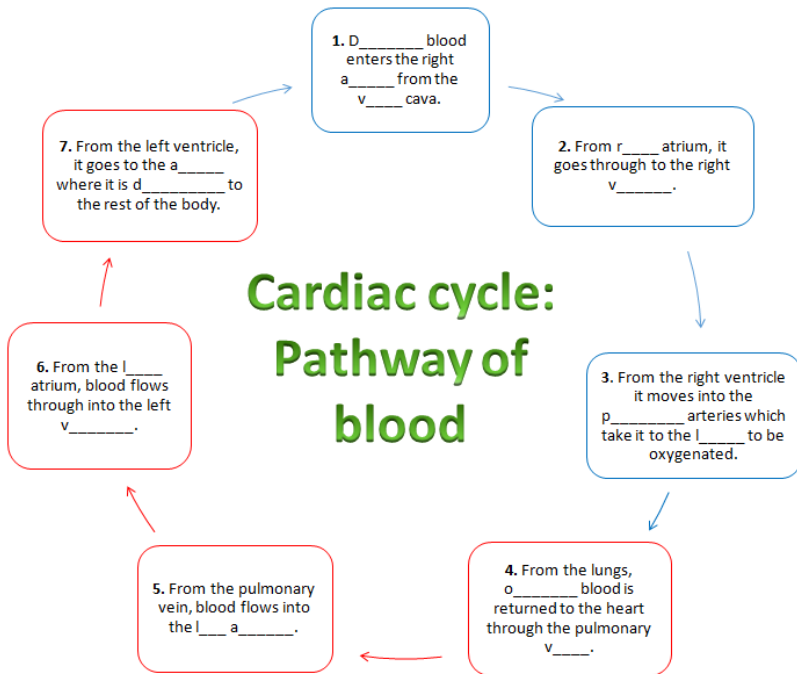
Left ventricle, right ventricle, right atrium, left atrium, vena cava, aorta, pulmonary artery, pulmonary vein, bicuspid valve, tricuspid valve

The Cardiovascular System

The blood vessels

Name:	Name:	Name:
		
Describe the structure and function:	Describe the structure and function:	Describe the structure and function:

Cardiac cycle: Pathway of blood



Cardiac output

Cardiac output is the volume of _____ that the heart is able to _____ out. It is usually measured in _____ per minute. The cardiac output represents the _____ of oxygenated blood that is delivered to the body. The equation for cardiac output is: $\text{Cardiac output } [Q] = H \times R \times S \times V$

Heart Rate

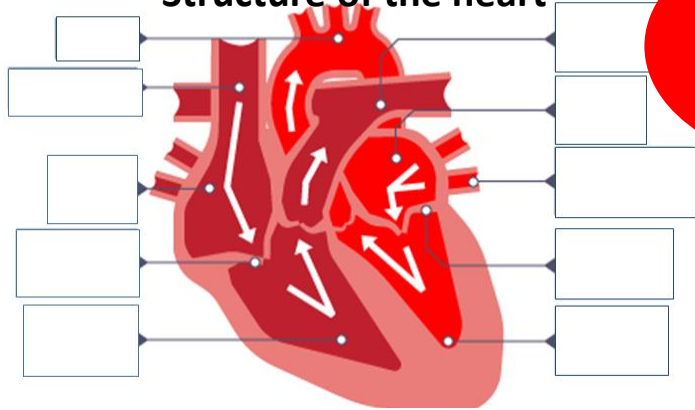
Heart rate is the number of times your heart ventricles _____ in one minute.

Stroke Volume

Stroke volume is the volume of blood _____ out of the heart by each ventricle during one _____. Stroke volume can be _____ by the heart contracting with more force and so pushing more blood out with each beat.

CHALLENGE: what happens to cardiac output during exercise?

Structure of the heart



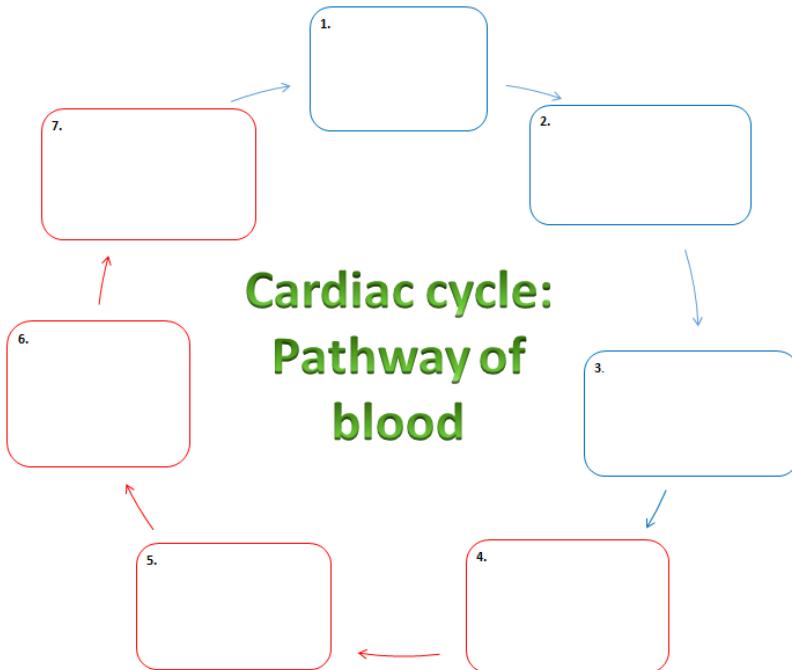
Label the diagram

The Cardiovascular System

The blood vessels

Name: _____	Name: _____	Name: _____
Draw the structure: 	Draw the structure: 	Draw the structure:
Describe the structure and function: 	Describe the structure and function: 	Describe the structure and function:

Complete each section of the cardiac cycle in the correct order



Define and explain Cardiac output:

Define Heart Rate:

Define and explain Stroke Volume:

CHALLENGE: what happens to cardiac output during exercise?