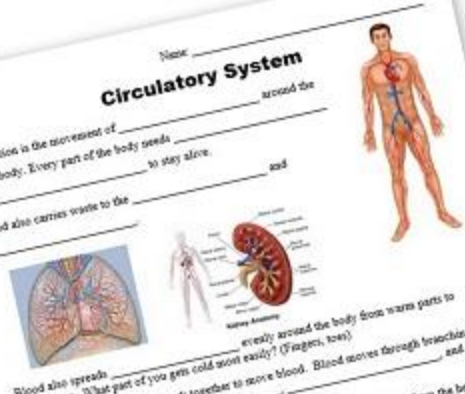


Name: _____

Circulatory System

Circulation is the movement of _____ around the entire body. Every part of the body needs _____ and _____ to stay alive. Blood also carries waste to the _____ and _____.



Blood also spreads _____ evenly around the body from warm parts to cooler ones. What part of you gets cold most easily? (Fingers, toes)

The heart and blood vessels work together to move blood. Blood moves through branching blood vessels called _____ and _____.

They are pictured as _____ carry blood away from the heart, _____ to the left. _____ bring blood to the heart. They are pictured as _____ connect arteries and veins and carry _____ to all parts of the body.

There are _____ to get all the blood vessels you need. There are _____ than two trillion.

Name: _____

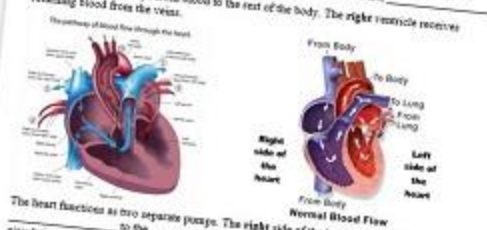
The Heart

The heart is the only muscle that does not need to rest. It is an muscle that works day and night. During normal activity, a heart beats _____ to _____ times per minute. During exercise, it beats much faster.

The heart has four parts or _____ chambers. _____ Blood flows through the top two chambers. _____ This blood enters the lower chambers.

The left ventricle pumps fresh blood to the rest of the body. The right ventricle receives returning blood from the veins.

The pathway of blood flow through the heart:



The heart functions as two separate pumps. The right side of the heart pumps blood from the circulation _____ to the _____ This is known as _____

In the lungs, _____ leaves the blood and oxygen is absorbed. The oxygen-rich blood then flows into the left side of the heart and is pumped to the rest of the body. This is known as _____

Circulatory System - Notebook Pages

Hands-on Activity about your Pulse

Name: _____

Your Pulse

Blood flows between chambers through flaps called _____ valves.

Your heartbeat is the sound of these _____ closing.

Your heart beats _____ times a day!!

Take Your Pulse!

Let's graph your heart rate. Find your pulse by placing your fingers gently on the side of your neck or on your wrist. First, take your pulse while resting. Take your pulse for 15 seconds and multiply by 4. Fill in the graph below under sitting.

• Next, walk slowly around the room for 1 minute. Stop and take your pulse. Fill in the chart below.

• Finally, skip around the room for 1 minute. Stop and take your pulse. Fill in the chart below.

• In the last column, choose your own activity. Do it for one minute, then stop and take your pulse.

Which activity made your heart work hardest?

200				
190				
180				
170				
160				
150				
140				
130				
120				
110				
100				
90				
80				
70				
60				
	Sitting	Walking	Running	Skipping

Have you had your blood pressure taken? This is a measure of the pressure that exerts against the inner blood vessel walls.

the top number - systolic pressure - is the pressure during peak (contraction)

the bottom number - diastolic pressure - is the pressure during the relaxation (in between beats)




Name: _____

Circulatory System Arteries and Veins

Draw in the following arteries and veins on the person below:

- Subclavian vein
- Brachial artery
- Ulnar vein
- Aortic arch
- Renal vein
- Femoral artery
- (Posterior) tibial artery
- (Anterior) jugular vein
- Abdominal vena cava
- Carotid artery
- Pubic artery



Name: _____

Blood Vessels

With each heartbeat, blood surges out of the heart into the main arteries. As these divide, each branch leads to a major _____, such as the _____ or _____. Artery branches then divide many more times sending blood deep into the tissues. The smallest of all blood vessels are the _____.

Each artery and vein has a name. These names change when they branch into smaller arteries or into larger veins.

The largest artery is the _____, which is about 1 1/4 inches (3 cm) across at its largest point!

The largest vein is the inferior _____.

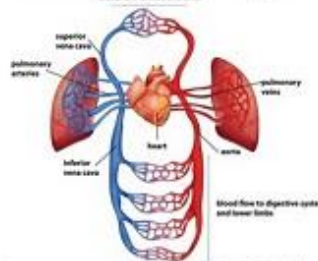
Blood Flow in Human Circulatory System

Blood flow to head and arms

which returns blood from the lower body and legs.

The _____ artery carries low-oxygen blood to the lungs.

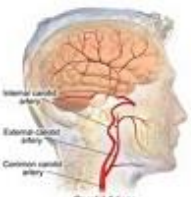

Pulmonary _____ returns high-oxygen blood to the heart.




The _____ artery is the main vessel carrying blood to the brain.

The _____ vein carries blood from the head to the heart.


Most arteries carry oxygenated blood, and most veins carry deoxygenated blood; the _____ arteries and veins are the exceptions to this rule.

Arteries

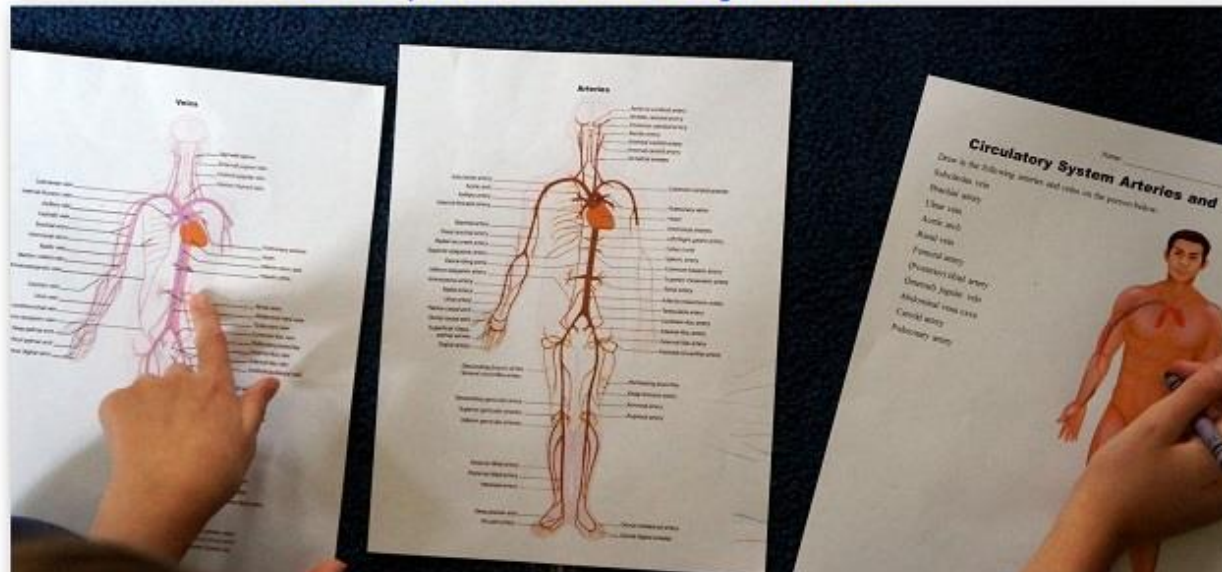


Veins



Circulatory System

Learning about the blood vessels arteries, veins and capillaries



Veins

Arteries

Circulatory System Arteries and Veins

Draw in the following arteries and veins on the person below:

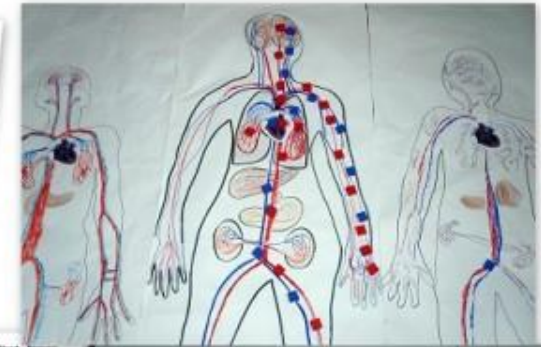
- Subclavian vein
- Brachial artery
- Ulnar vein
- Aortic arch
- Renal vein
- Femoral artery
- (Posterior) tibial artery
- (Anterior) jugular vein
- Abdominal vena cava
- Carotid artery
- Pubic artery



Circulatory System Project:
 Cut a large piece of butcher paper. Lie on top of the paper and have someone trace around your body.
 Using the diagrams on the previous page, create a life-size illustration of a person's circulatory system. Include the heart, lungs, brain, arteries, veins, and capillaries. Your heart should include the 4 chambers and show the basic pathway blood takes.
 Label the major arteries and veins.
 Show the way of capillaries between the arteries and veins.
 These illustrations might be helpful:
 Make sure your drawing is a closed system.

How Blood Flow Through the Heart

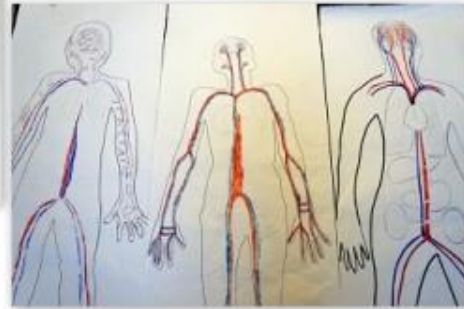
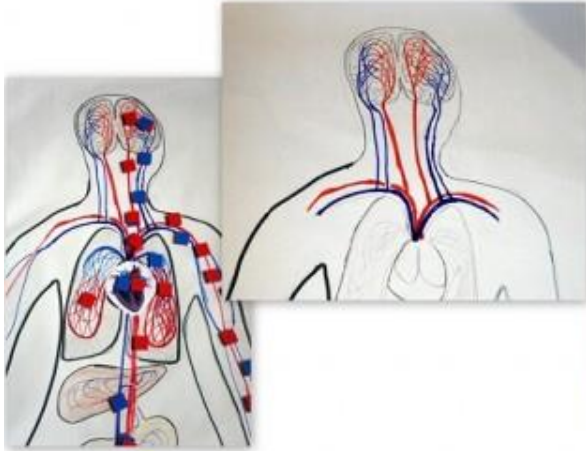
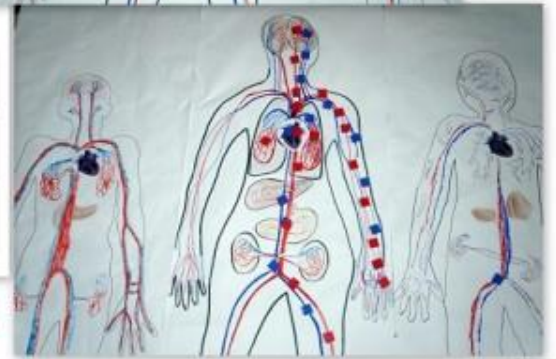
Left Atrium - Right Atrium - Left Ventricle - Right Ventricle
 Right Atrium - Left Ventricle - Right Ventricle - Left Atrium
 Left Atrium - Right Ventricle - Left Ventricle - Right Atrium
 Right Atrium - Left Ventricle - Right Ventricle - Left Atrium



Circulatory System Project

How Blood Flows Through the Heart - Summary

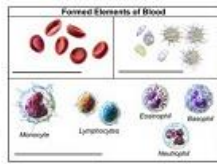
The pathway of blood flow through the heart





Name: _____
Blood
 About _____ % of human body weight is from blood.
 Adults have about _____ to _____ quarts of blood.

_____ is the liquid component of blood. It carries nutrients, hormones, and proteins throughout the body.



_____ make up 40-50% of the total blood volume. They transport _____ from the _____ to all _____ living tissue and carry _____ away _____.

_____ They carry around an important chemical called _____ which gives blood its red color.

White blood cells make up a small part of the blood's volume. These help fight _____ Some cells called _____ are the first responders for our immune system, seeking out and binding to the protein in foreign bacteria, viruses and fungi. Other cells, monocytes, surround and destroy the alien cells.



What is Blood Made of?



homeschoolden.com

What's Your Blood Type: Survey Sheet

We are learning about the circulatory system in school and you bring a survey about blood. We would like to have your participation. We are looking for survey _____ people. Once we get our results we will graph the results and compare them to the national averages.

There are 8 blood types: O+, O-, A+, A-, B+, B-, AB+, AB- (Rh+ for including these results in the survey sheet)

No. of People	Name	Blood Type	Male or Female?	NO Rh+ or Rh-?	Blood Type	Male or Female?	NO Rh+ or Rh-?
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Hands-on Activity Ideas:

Blood Typing Kit

If you are interested, you can purchase a blood-typing kit (affiliate link). Although I know the blood types of my older two, I couldn't remember the blood type of my youngest. She was eager to have do the blood typing kit even though it entailed pricking her finger!

The kit includes a companion chart once your blood has mixed in each of the water droplets. It was pretty straightforward to do!

Blood Type Survey:

We surveyed 10 people about their blood types. We made sure to ask only unrelated people (no parents and _____) to make the results as random as we could.

In the following pages, you can see the results of the survey. You can use the same order for each blood type.

How did your results compare with the national averages?

Here are our results:

What's Your Blood Type

Graph the results of your survey. Also, graph the number of males and females you surveyed.

Blood Type	Number of People
O+	
O-	
A+	
A-	
B+	
B-	
AB+	
AB-	

Blood Type Activities

What's Your Blood Type

Graph the results of your survey on the survey provided. Also, graph the number of males and females you surveyed.

What's Your Blood Type: US Results

O-positive: 38 percent.
 O-negative: 7 percent.
 A-positive: 34 percent.
 A-negative: 6 percent.
 B-positive: 8 percent.
 B-negative: 2 percent.
 AB-positive: 3 percent.
 AB-negative: 1 percent.

Most common blood type in the US: O+
 Least common blood type in the US: AB-

What's Your Blood Type: Survey Results

In this survey we surveyed 10 people whose names were _____ through the results and compare them to the national averages.

There are 8 blood types: O+, O-, A+, A-, B+, B-, AB+, AB- (Rh+ stands for "Blood's Rhoma").

No. of People	Name	Blood Type	Male or Female?	NO Rh+ or Rh-?	Blood Type	Male or Female?	NO Rh+ or Rh-?
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

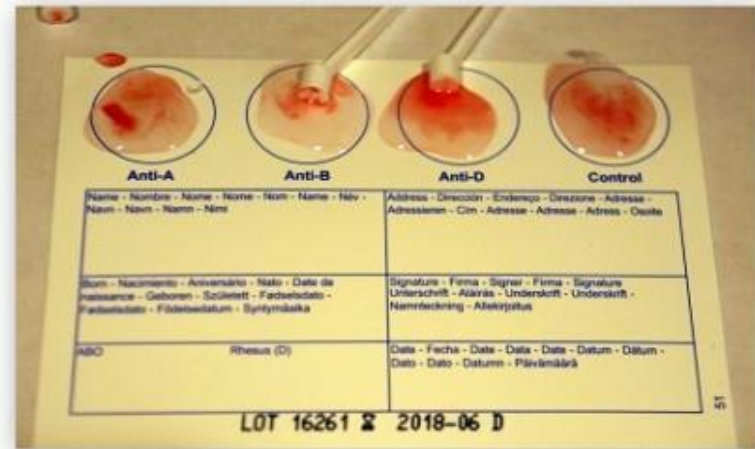


What's Your Blood Type: US Results

O-positive: 38 percent.
 O-negative: 7 percent.
 A-positive: 34 percent.
 A-negative: 6 percent.
 B-positive: 8 percent.
 B-negative: 2 percent.
 AB-positive: 3 percent.
 AB-negative: 1 percent.

Most common blood type in the US: O+
 Least common blood type in the US: AB-

homeschoolden.com



Blood Typing Kit

