

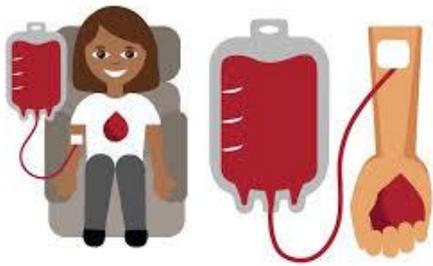
Blood

Yesterday the 14th of June was **World Blood Donor Day**.

A donor in this case, is someone who gives his/her blood to help others who are sick, need an operation or a blood transfusion.

You see, we can't live without blood. It's as simple as that!

Blood is pumped by the heart to every part of our body and it keeps us alive.



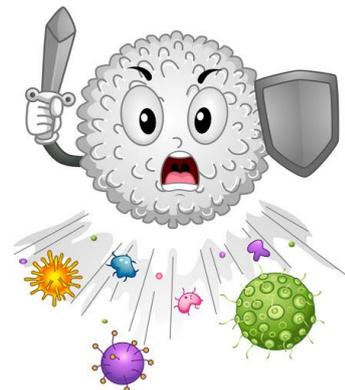
Someone donating blood



Donors are heroes

So what does blood do?

- It brings a steady supply of fuel and oxygen to the body.
- Blood also carries carbon dioxide and other waste materials to be removed from the body.
- Blood helps us keep warm and cool off
- Blood helps us fight infections



How does blood get around the body?

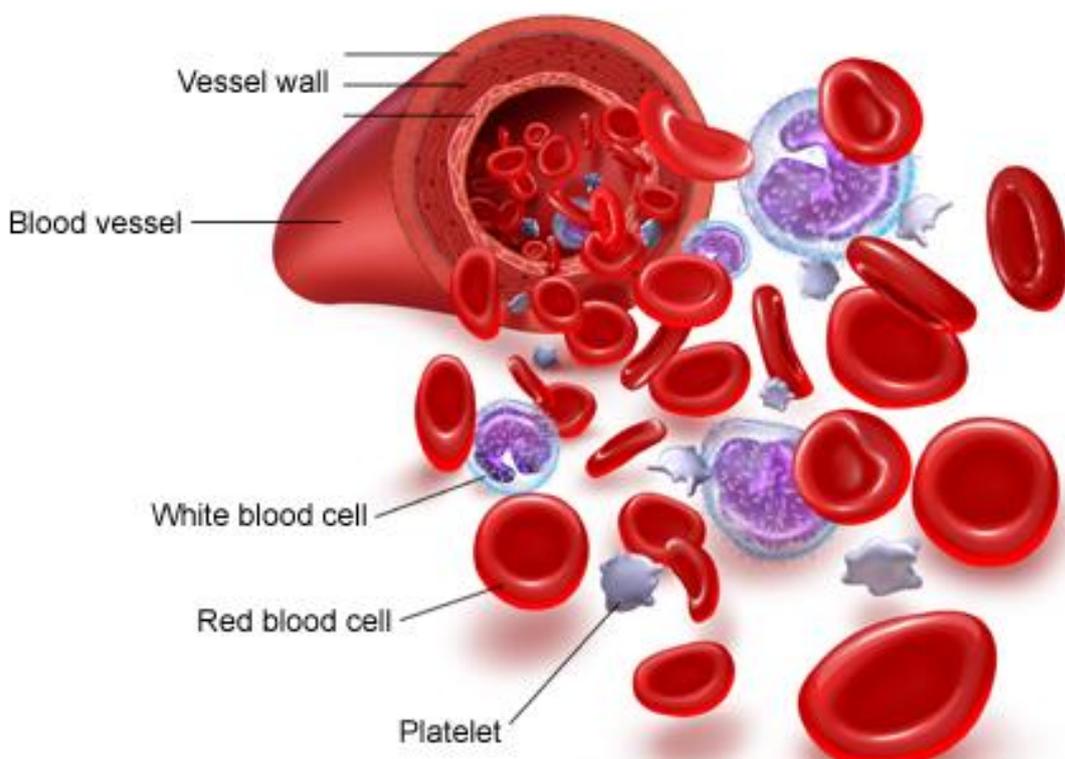
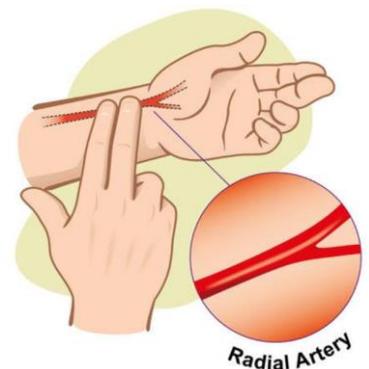
Blood is carried by three types of blood vessels

Arteries carry oxygenated blood (blood that has received oxygen from the lungs) from the heart to the rest of the body.

Veins take the blood back to the heart and lungs, where it gets more oxygen.

Capillaries are really small vessels located within the tissues of the body that transport blood from the arteries to the veins.

You can feel blood travelling through your body at your pulse points (neck and the wrist) where large, blood-filled arteries run close to the surface of the skin. Try it and see



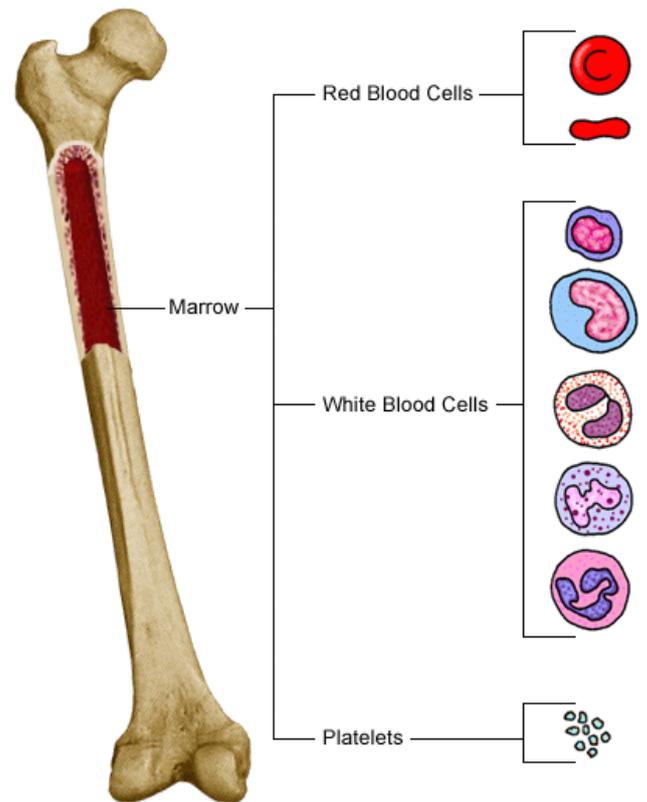
Study the diagram above. Blood contains three types of blood cells:

1. red blood cells
2. white blood cells
3. platelets

Can you find them in the diagram?
Look at their shape and colour

Where is blood made?

All blood cells are made in the bone marrow. Bone marrow is found inside your bones. The blood cells are made in some of these bones.

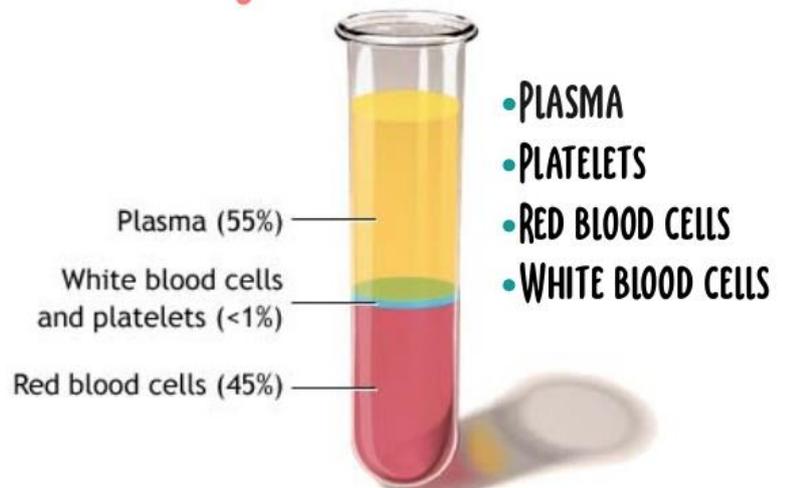


How do blood cells travel?

Blood cells travel through our body in a yellowish fluid called **plasma**. Plasma is 90% water. Whole blood is a mixture of blood cells and plasma.

(See the diagram right)

What is in your blood?



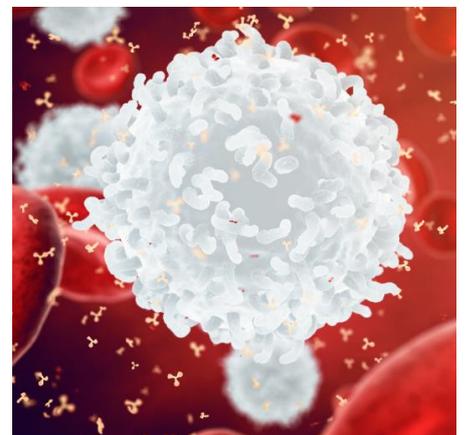
Red Blood Cells

Red blood cells are shaped like slightly indented, flattened disks. Blood gets its bright red colour because they carry oxygen. As the blood travels through the body, the oxygen is released to the tissues. Red blood cells have a **life span of about 4 months**. Each day, the body produces new ones to replace those that died.



White Blood Cells

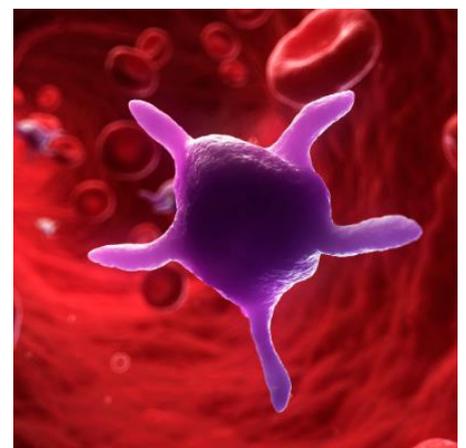
White blood cells **defend** the body against infection. There are several types of white blood cells, some live for a few days and others for months. New white blood cells are constantly being made in the bone marrow.



White blood cells fight germs such as bacteria and viruses. Some of them produce **antibodies**, special proteins that recognize foreign materials and help the body destroy or neutralize them.

Platelets

Platelets are tiny oval-shaped cells. They help in the **clotting** process. Think of a cut on your finger. When a blood vessel breaks, platelets gather in the area and help seal off the leak. You stop bleeding. Platelets live for 9 days in the bloodstream and are constantly being replaced by new ones.



Questions:

1. Name four jobs the blood does?

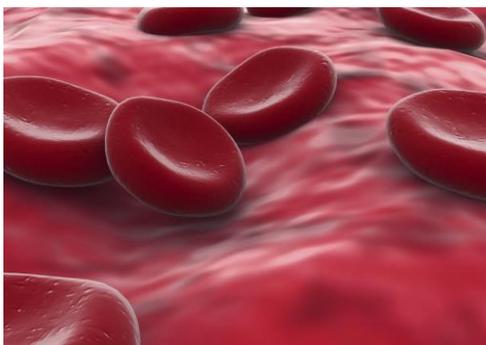
2. Name three blood vessels found in the body?

3. Name two places on your body where you can take your pulse?

4.

Match the blood cell and its function/job	
Blood cell	Function
White blood cells	Helps healing
Platelets	Carry oxygen
Red Blood Cells	Fights infection

5.



What is the name of this blood cell? _____

How do you know?

- 6. Where are blood cells made? _____
- 7. What percentage (%) of blood is made up of plasma? _____
- 8. How long do red blood cells live? _____
- 9. What do red blood cells carry around the body? _____
- 10. What is the job of the white blood cell? _____

- 11. How long do platelets survive in the blood stream? _____
- 12. Can you identify (name) the blood cells from the picture?

