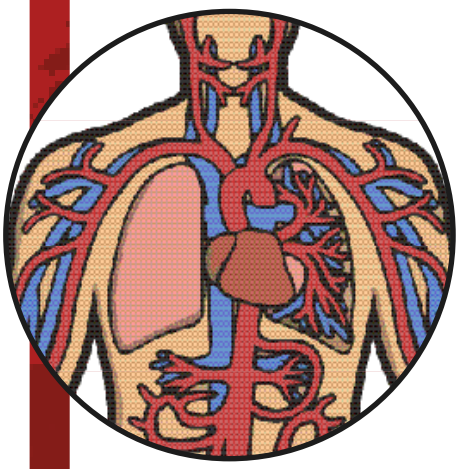
The Circulatory System

The circulatory system is in our body. The word 'circulatory' means something that is going round and round in a circle or loop. This is exactly what is happening in our bodies all the time.

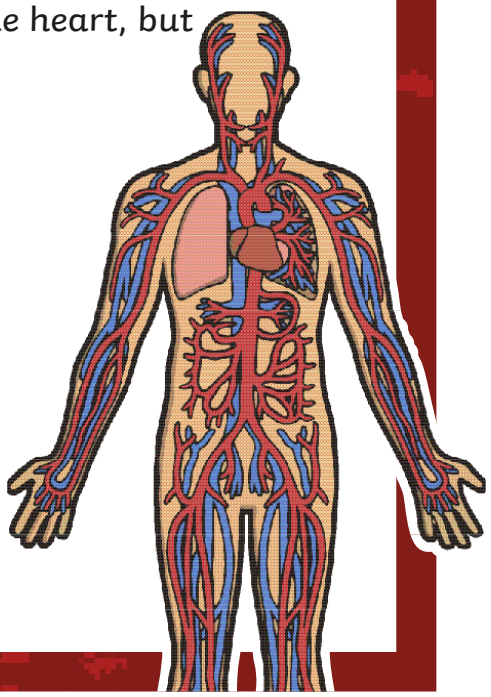


What Circulates and Why?

Your blood is circulated all around your body, and it is doing a really important job. Your blood takes nutrients, hormones and oxygen all around the body to all the places they need to go. The oxygen gets collected into your body when we breathe in, and it goes straight to your lungs. It's in the lungs that this oxygen goes into our blood and starts its journey around the body. You could think of the blood cells a bit like delivery drivers that drop off the oxygen to where it needs to be. Oxygen is dropped off all around the body to the capillaries, which are fine blood vessels that transfer the oxygen to all the cells in the body.

The Heart

Literally, the heart is at the heart of it all! Without the heart, no blood would get anywhere around your body. The heart is basically a big pump that constantly pumps the blood around the circulatory system. This happens all the time (even when you are asleep) to keep you alive. There are two loops in the circulatory system; the first goes to and from the heart visiting the lungs to collect oxygen and get rid of carbon dioxide. The other loop is much larger and goes to and from the heart, but travels all around the body in between.



Did You Know...?

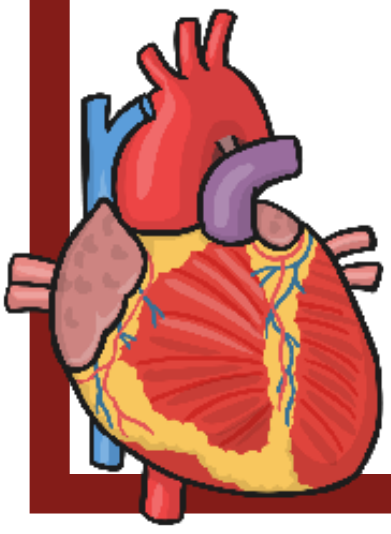
- In the average person, the heart beats about 2,500,000,000 times during a lifetime.
- Amazingly, it only takes about 20 seconds for one red blood cell to go round the whole body.
- Red blood cells last about 4 months before your body makes new ones.

The Other Half of the System

We've talked about the blood in your system collecting oxygen, and delivering it all around the body, but it also does another important job. It takes carbon dioxide from your body and back to the lungs to be let out when you breathe out. If we think of our red blood cell delivery drivers again, they also collect the waste and take it away again. So, they are delivery drivers and waste disposers all in one!

Did You Know...?

- If you put one adult's veins, capillaries and arteries in one long line it would stretch 60,000 miles which would circle the Earth two and a half times!



The Circulatory System Questions

1. Name three things that are transported around the body with your blood.

2. How long do red blood cells last for? **Tick one**.
   - ◯ 4 months
   - ◯ 20 seconds
   - ◯ 20 days
   - ◯ 4 weeks

3. Tick the boxes to say whether the statements below are **true** or **false**.

Sentence	**True**	**False**
Oxygen gets collected into our bodies when we breathe out.		
There are two loops in the circulatory system.		
Your heart pumps blood around your body for 22 hours of the day.		
It takes around 20 seconds for a red blood cell to travel around the body.		

4. Why do you think the paragraph 'The Heart' begins with the words 'Literally, the heart is the heart of it all!'?

5. According to the text, what would circle around the Earth two and a half times?

6. What simile is used to explain the function of the blood?

7. What are the functions of the two different 'loops' in the circulatory system?

8. What are capillaries?

9. What is the most interesting piece of information you have read in this text and why?

The Circulatory System **Answers**

1. Name three things that are transported around the body with your blood.
   Oxygen, nutrients and hormones.

2. How long do red blood cells last for? **Tick one**.
   - ✓ **4 months**
   - ○ 20 seconds
   - ○ 20 days
   - ○ 4 weeks

3. Tick the boxes to say whether the statements below are **true** or **false**.

Sentence	**True**	**False**
Oxygen gets collected into our bodies when we breathe out.		✓
There are two loops in the circulatory system.	✓	
Your heart pumps blood around your body for 22 hours of the day.		✓
It takes around 20 seconds for a red blood cell to travel around the body.	✓	

4. Why do you think the paragraph 'The Heart' begins with the words 'Literally, the heart is the heart of it all!'?
   I think the paragraph about the heart begins with 'Literally, the heart is the heart of it all!' because something being 'the heart' is a phrase that means it is really important. The author has used the phrase because the heart is really important, and also because it is a heart.

5. According to the text, what would circle around the Earth two and a half times?
   An adult's veins capillaries and arteries would circle the Earth two and half times if they were put in one long line.

6. What simile is used to explain the function of the blood?
   The function of the blood is likened to delivery drivers as it transports important things all around our bodies.

7. What are the functions of the two different 'loops' in the circulatory system?
   There are two different loops in the circulatory system – one that goes to and from the heart, passing through the lungs to collect oxygen, and another, much larger loop that goes to and from the heart, but goes all around the body.

8. What are capillaries?
   Capillaries are fine blood vessels that transfer oxygen to cells in the body.

9. What is the most interesting piece of information you have read in this text and why?
   Pupil's own response.