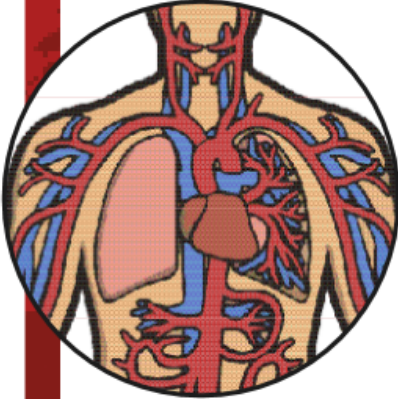


The Circulatory System

The circulatory system is a really important part of 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?

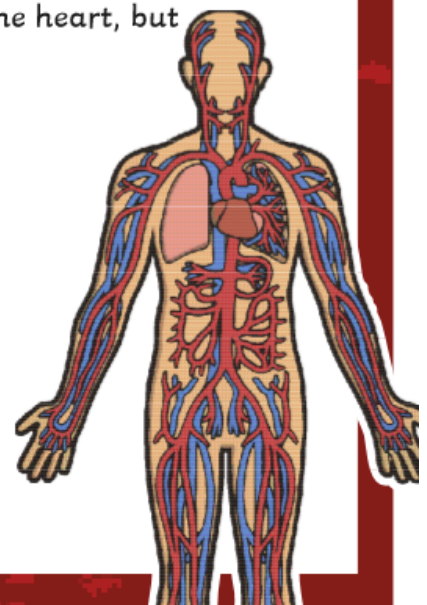
The simple answer is your blood is circulated all around your body. The blood is doing a really important job - it is taking nutrients, hormones and oxygen all around the body to all the places they need to go. The oxygen comes into your body when we breathe in and it goes into our lungs. Then, inside the lungs, 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 thinner blood vessels, which transfer (move across) the oxygen to the cells in the body.

The Heart

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 has to happen 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...?

- The average person's heart will beat 2.5 billion times during a lifetime.
- Amazingly, it takes under 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 already talked about the blood in your system collecting oxygen, and delivering it all around the body, but it also carries out an equally important role in taking carbon dioxide (CO₂) from your body and delivering it back to the lungs. The waste product is then expelled from the body when you exhale. If we think of our blood cell delivery drivers again, they also collect the waste and take it away again. So, they are delivery drivers and waste disposal agents all in one!

Did You Know...?

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

The Circulatory System: Questions

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

How long do red blood cells last for?

From the first paragraph, find and copy a word that means vital.

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

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

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

What are capillaries?

In 'The Heart' paragraph, what does the phrase 'at the heart of it all' mean?

In your own words, explain how carbon dioxide is removed from the body.

How has the author tried to make the information interesting to the reader?

Amazingly, it takes under 20 seconds for one red blood cell to go round the whole body.

Underline the adverb in the sentence above.

Circle a pronoun.

How many nouns are in the sentence?

Find a verb and replace it with a suitable synonym.

The Circulatory System: Answers

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

Oxygen, nutrients and hormones.

How long do red blood cells last for?

4 months

From the first paragraph, find and copy a word that means vital.

important

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

An adult's veins, capillaries and arteries.

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

delivery drivers transporting things round our bodies.

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

One between the heart and lungs collecting oxygen.

The other goes from the heart all over the body.

What are capillaries?

Fine blood vessels that transfer oxygen to cells in the body.

In 'The Heart' paragraph, what does the phrase 'at the heart of it all' mean?

It means it is at the centre of it all or is the focus or most important part of the process.

In your own words, explain how carbon dioxide is removed from the body.

Any reasonable answer, such as: Carbon dioxide is transported by the red blood cells to the lungs, where it is breathed out.

How has the author tried to make the information interesting to the reader?

Answers might include: using words such as 'amazingly'; including interesting facts; using similes or word play; illustrating it with pictures; phrasing headings as questions to make you want to read and find out the answer.

Amazingly, it takes under 20 seconds for one red blood cell to go round the whole body.

Underline the adverb in the sentence above. *amazingly*

Circle a pronoun. *it*

How many nouns are in the sentence? *3 (seconds, blood cell & body)*

Find a verb and replace it with a suitable synonym.

takes: needs, requires, lasts etc.

go: travel, move, get etc.