

# OGUN DIGICLASS

CLASS: PRIMARY SCHOOL

SUBJECT: BASIC SCIENCE

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TOPIC: HUMAN CIRCULATORY SYSTEM



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# THE HUMAN CIRCULATORY SYSTEM

AFOLAKE SONEYE

# OBJECTIVES

- Explain the meaning of human circulatory system.
- Identify the 3 main parts of the circulatory system.
- State the functions of the main parts.
- List the 3 blood vessels.



# INTRODUCTION

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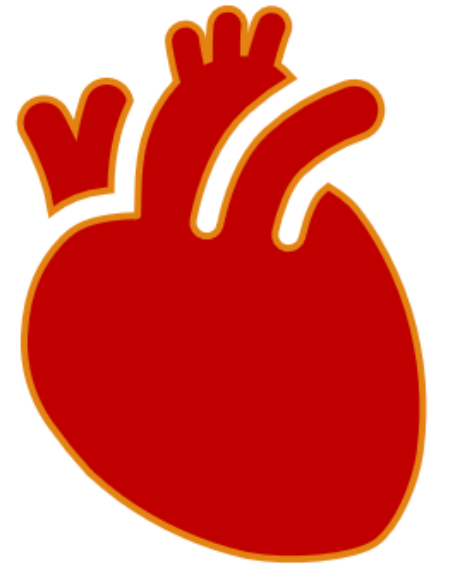
Human Circulatory System refers to the continuous movement or flow of blood in the body involving the **heart** and the **blood vessels**.

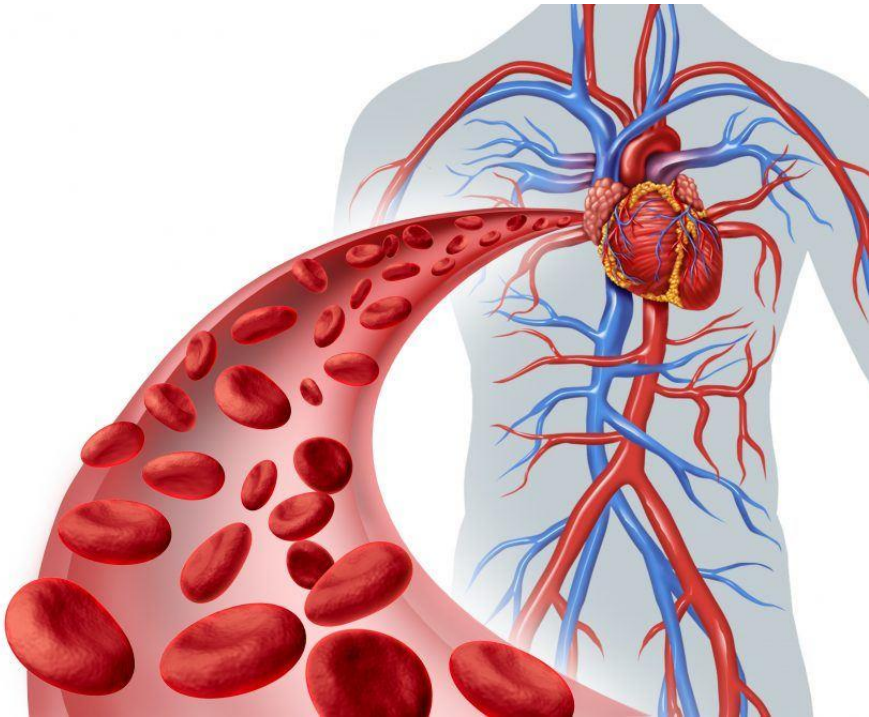
This system is one of the most important in the body.

It is made up of 3 main parts:

- ☐ The heart
- ☐ The blood
- ☐ The blood vessels.

This system is also known as the **Cardiovascular system**.





# THE HEART

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Your heart is made up of muscles that pumps blood around your body via blood vessels (tubes).

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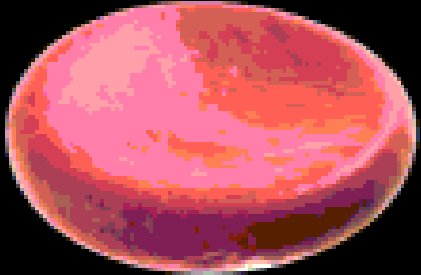
The heart is inside your chest, protected by bones - the ribs and breast bone.

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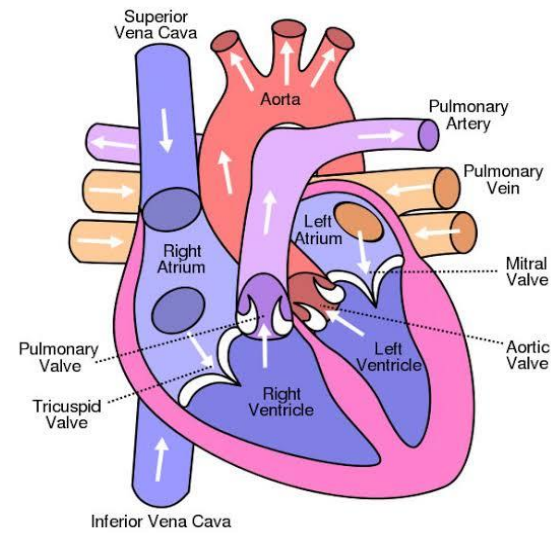
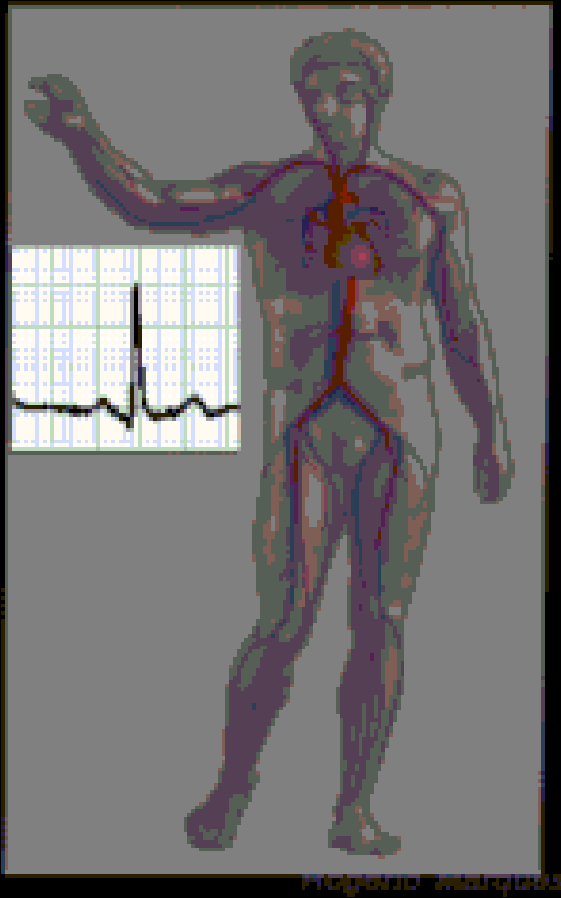
When the heart pumps, it beats - we measure the heartbeat via the pulse - easily found on your wrist and neck.

00:00:00

Carbon  
dioxide



Oxygen



- ❑ Your heart is about the size of your fist.
- ❑ In most adults it beats about 70 times a minute (70 bpm).
- ❑ You cannot normally live for more than 5 minutes if your heart stops beating.

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It is a liquid tissue containing cells suspended freely in a watery medium and it is the means of transporting dissolved nutrients.

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The red color of the blood is due to the presence of Haemoglobin.

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It serves as transport medium.

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Regulation of body temperature.

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It defends the body against diseases.

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It maintains a constant internal environment.

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Production of antibodies.

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Formation of clotting over wound to control bleeding.

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# BLOOD





# THE LUNGS

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Your lungs receive the air you breathe in through your nose.

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When you breathe in, the lungs puff-out or inflate, and deflate when you breathe out.

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From the air, they take the useful part - oxygen (a gas), and convert it for use in the body via the bloodstream.

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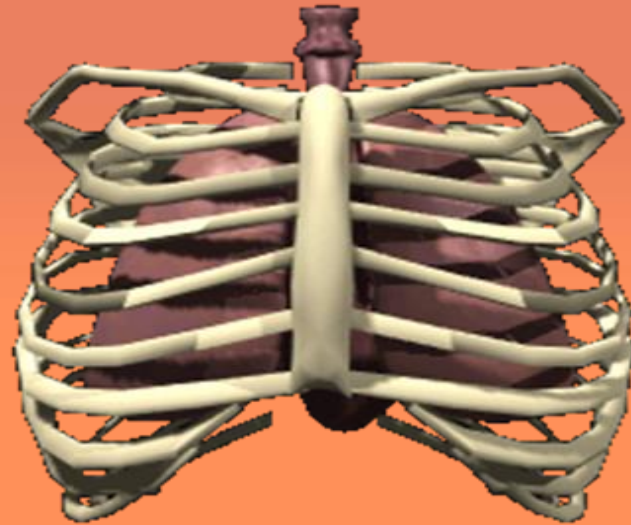
The blood swaps carbon dioxide (the waste material) for oxygen in the lungs. This is why the lungs are often said to convert gases.



# The Lungs



- ☐ You have 2 lungs.
- ☐ Your lungs are protected by your ribcage.





# BLOOD VESSELS

- ❑ The blood vessels run throughout the body supplying oxygen to every cell in the body.
- ❑ They are made up of 3 types – **Arteries**, **Veins** and **Capillaries**.

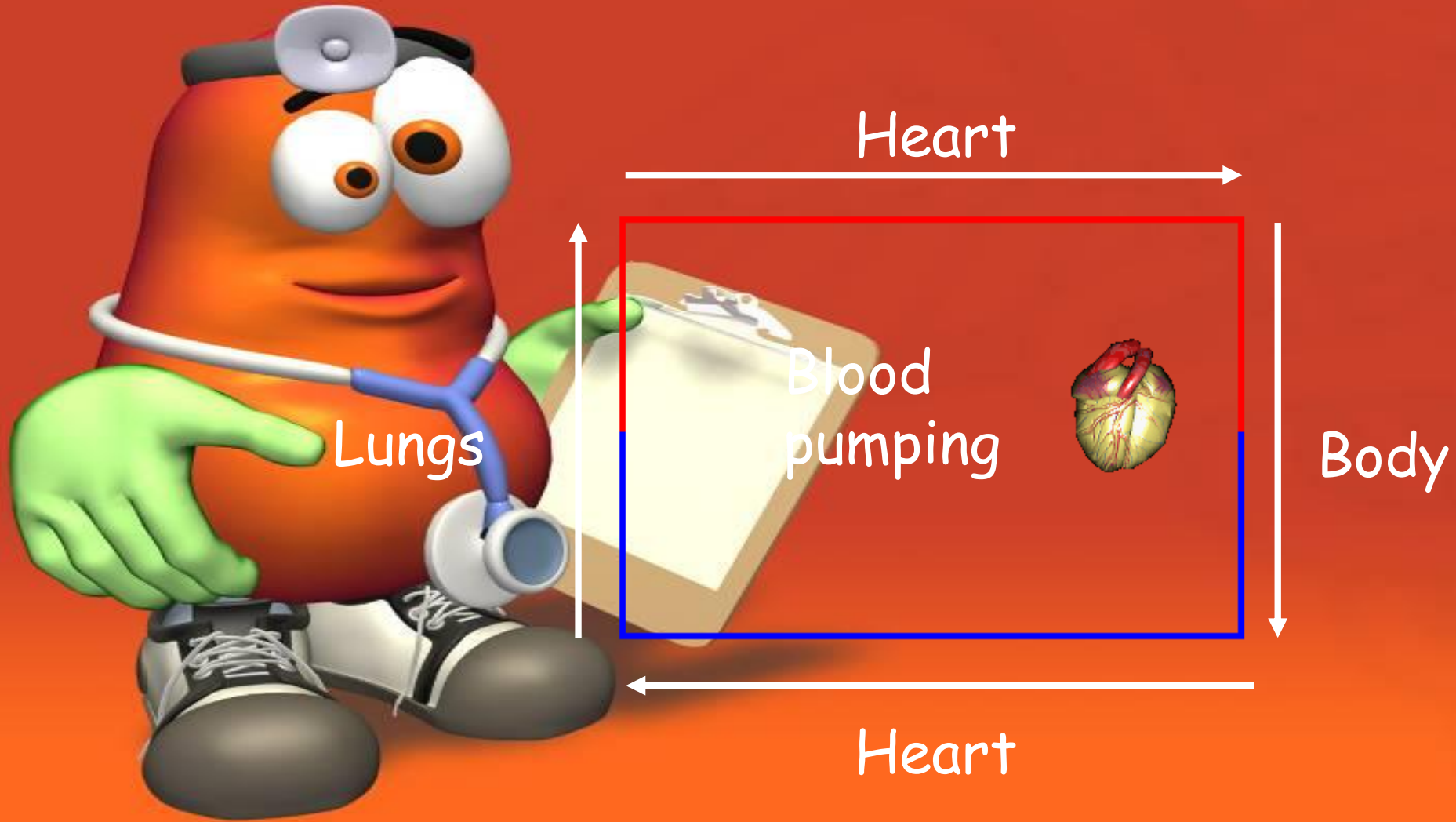
**Arteries:** They are thick blood vessels. They transport *oxygenated blood* away from the heart to the body cells.

**Veins:** They are thick blood vessels. They transport *deoxygenated blood* back to the heart from the body cells.

**Capillaries:** They are the tiny network of blood vessels that join the veins to the arteries.

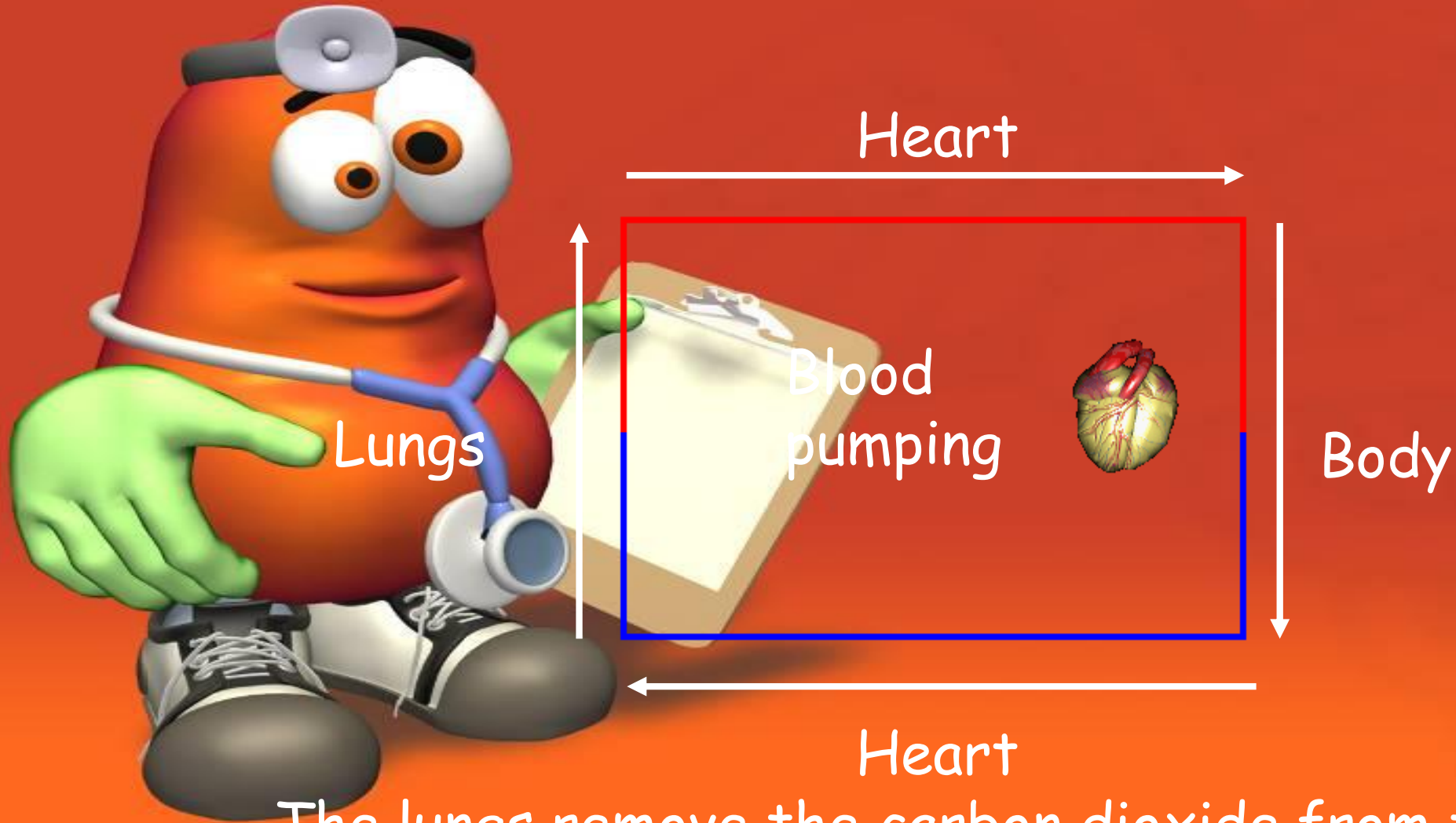


# The human circulatory system



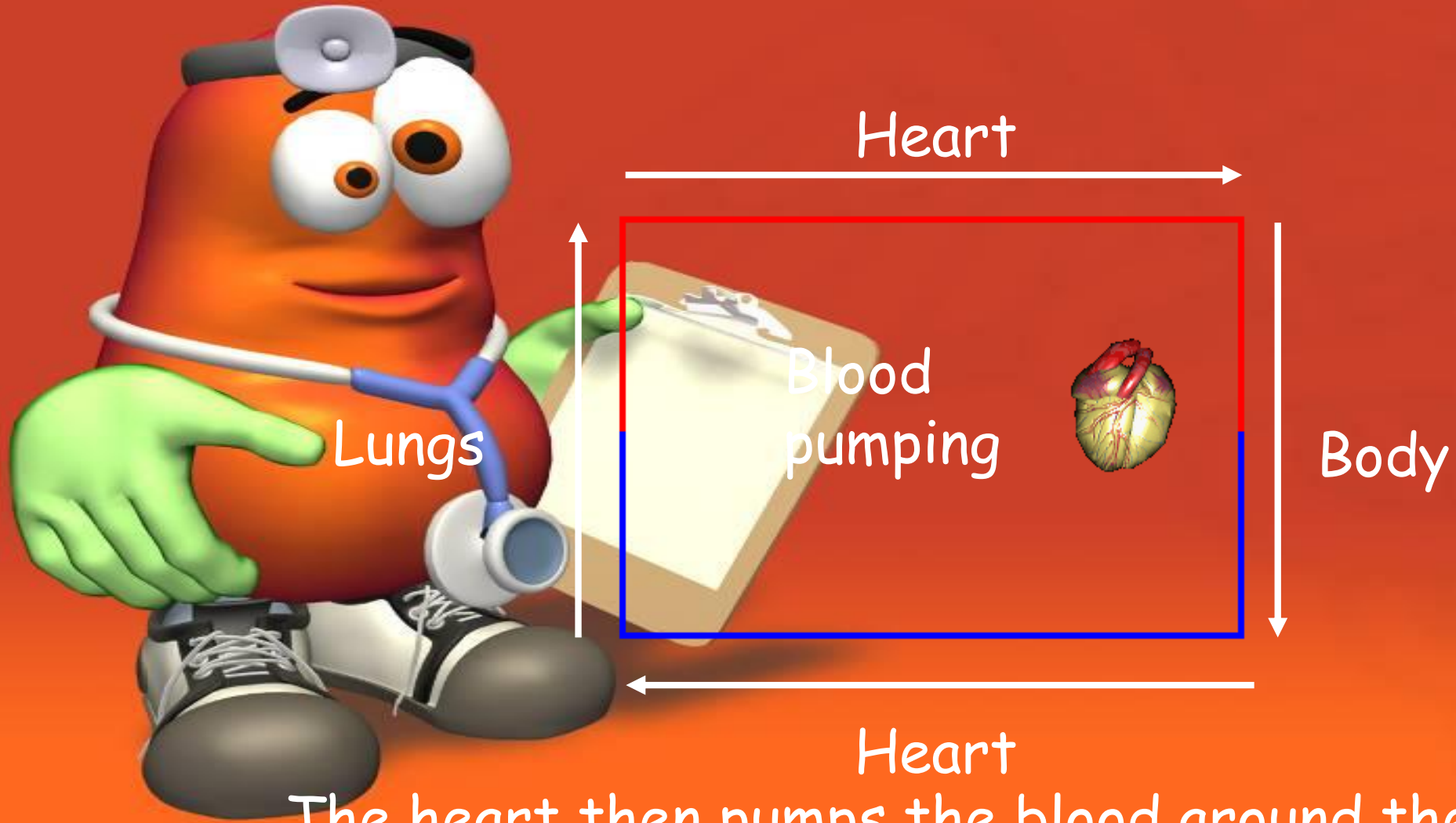
The heart pumps blood to the lungs

# The human circulatory system



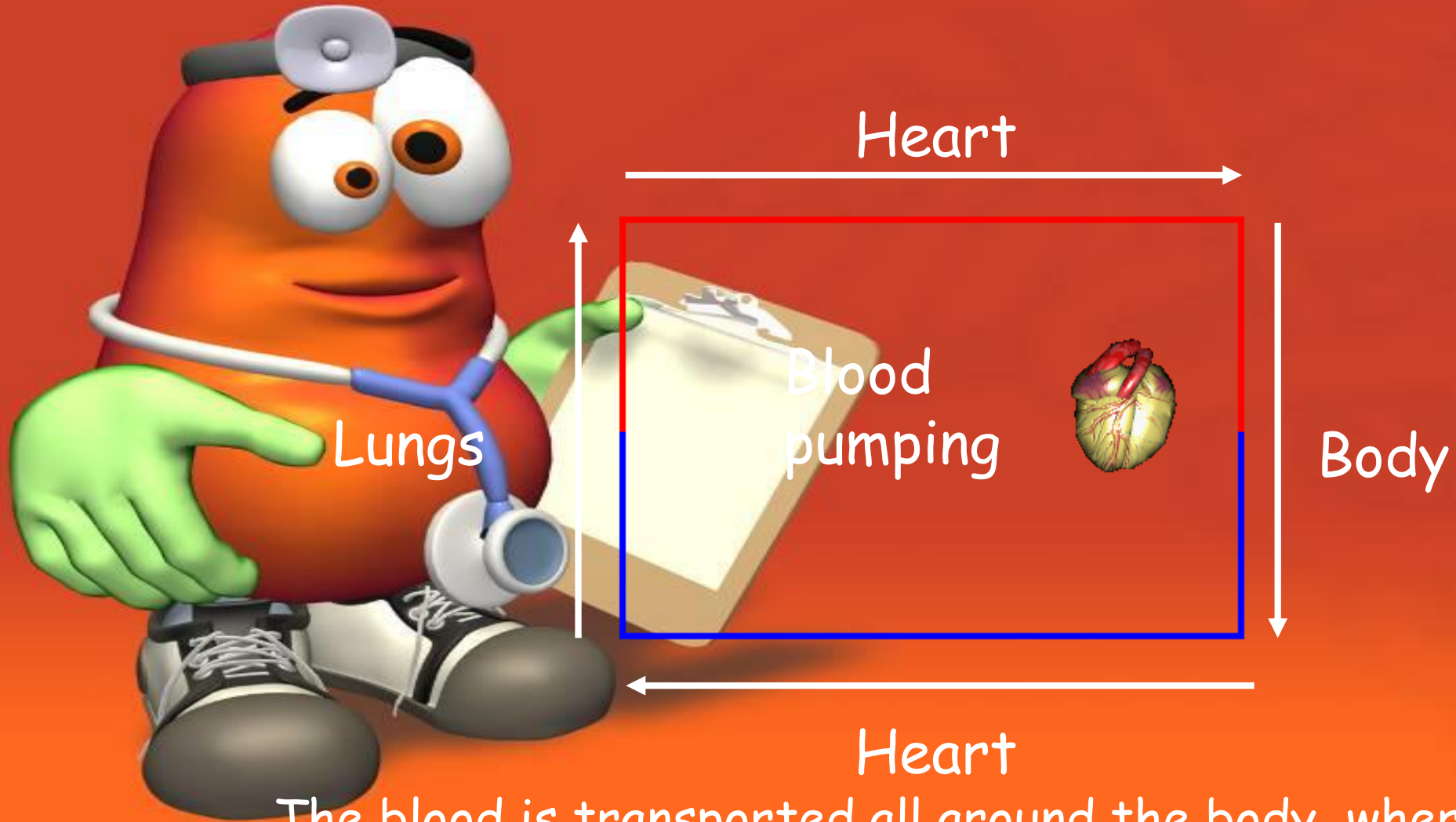
The lungs remove the carbon dioxide from the blood and refill it with oxygen.

# The human circulatory system



The heart then pumps the blood around the body.

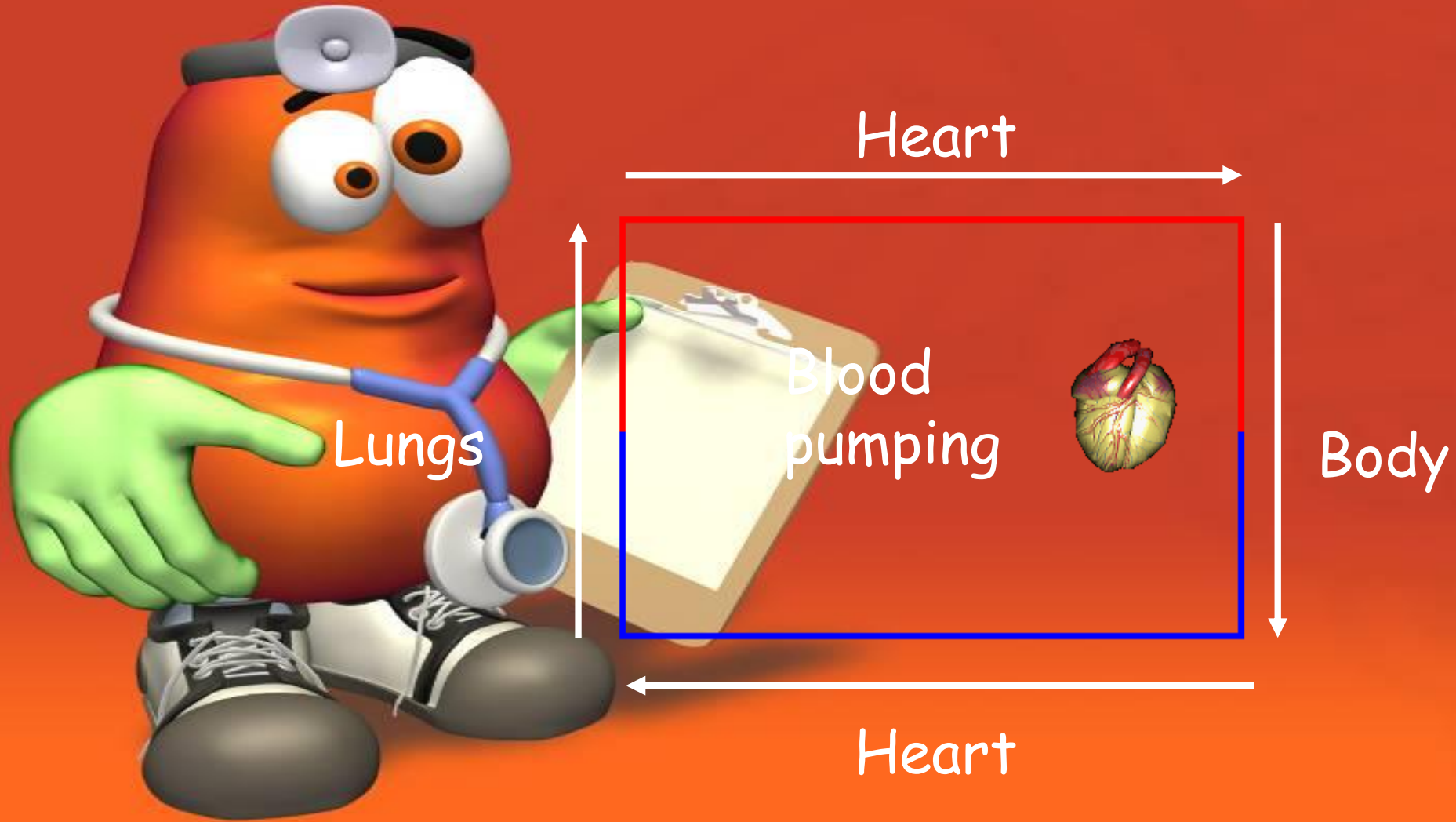
# The human circulatory system



The blood is transported all around the body, where oxygen is taken and replaced with carbon dioxide.



# The human circulatory system



The cycle starts again



# Evaluation



Define Human Circulatory System



List 3 components of the circulatory system



Mention 2 functions of blood

# Assignment



Your heart pumps blood around your body. True or False



Your blood carries carbon-dioxide to all the parts that need it. True or False



The ribs are bones that protect the heart and lungs. True or False