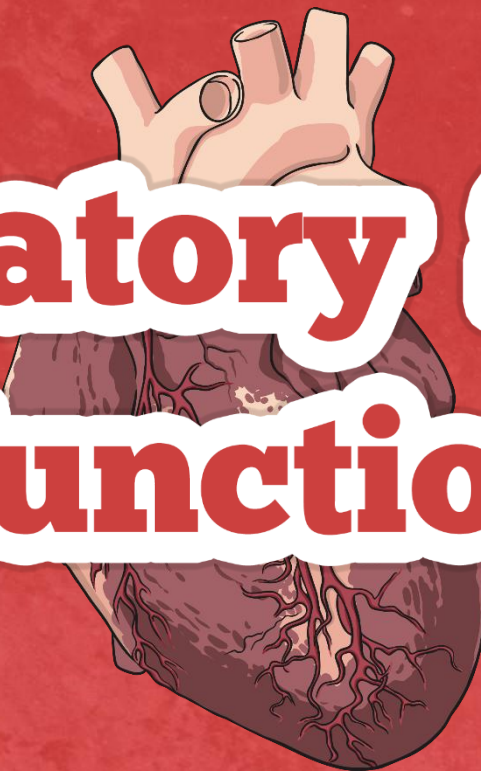




Science

Animals Including Humans

An anatomical illustration of a human heart, showing the four chambers (right and left atria and ventricles) and the major blood vessels (superior and inferior vena cava, pulmonary artery, and aorta). The heart is rendered in shades of brown and tan, with a detailed network of smaller vessels branching out from the main vessels. The illustration is centered on the page, behind the main title text.

Circulatory System Functions

Aim

- I can describe the functions of the main parts of the circulatory system.

Success Criteria

- I can explain the main functions of the heart, blood and blood vessels.
- I can describe the functions of parts of the heart and blood.

The Circulatory System

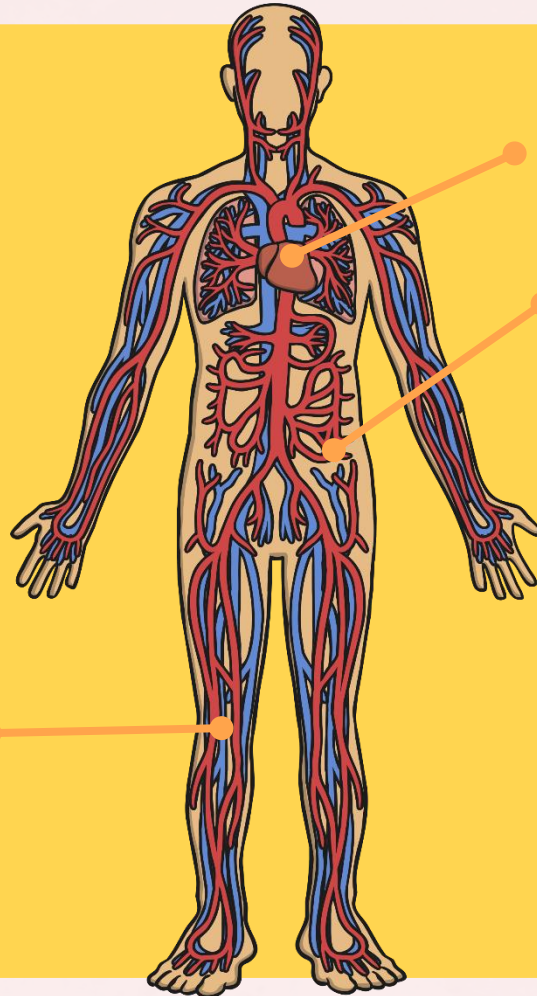


Label the main parts
of the circulatory
system:

Blood vessels

Heart

Blood



Heart

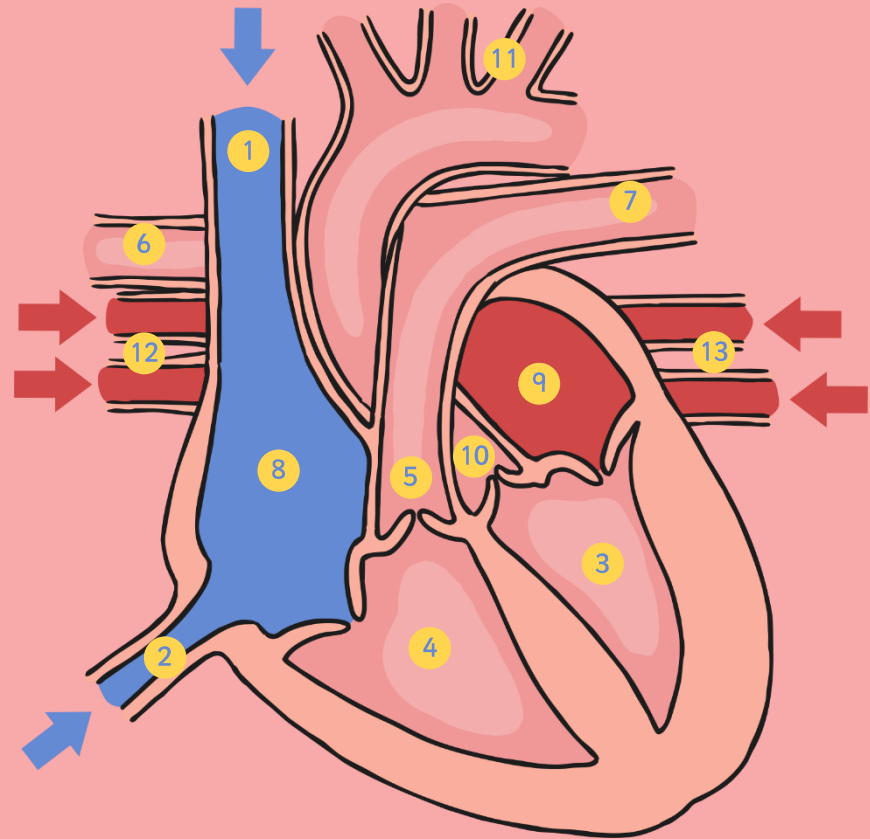
Blood

Blood vessels

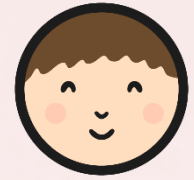
The Circulatory System: Heart



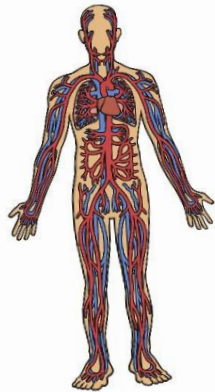
- 1 Superior vena cava
- 2 Inferior vena cava
- 3 Left ventricle
- 4 Right ventricle
- 5 Pulmonic valve
- 6 Pulmonary artery (right)
- 7 Pulmonary artery (left)
- 8 Right atrium
- 9 Left atrium
- 10 Aortic valve
- 11 Aorta
- 12 Right pulmonary veins
- 13 Left pulmonary veins



Functions of the Heart



Functions of the Circulatory System



General Functions of the Circulatory System

Heart:
The heart plays an important role because it keeps all the blood flowing in the circulatory system. The process of exercising results in the body requiring more oxygen, this means that the heart has to circulate more oxygenated blood through the circulatory system. That is why your heart beats faster when you exercise.

Lungs:
When we breathe, we inhale air containing oxygen into our lungs. It is in the lungs that blood vessels pick up oxygen and leave carbon dioxide to be released.

Blood Vessels:
Blood vessels are tubes that carry the blood around the body.

There are three main types of blood vessels:

Arteries – these carry oxygenated blood away from the heart to the rest of the body.

Veins – these carry deoxygenated blood back to the heart to be pumped to the lungs to become oxygenated.

Capillaries – these are blood vessels that connect to both arteries and veins. They are also connected directly to cells. Blood with nutrients and oxygen passes from the artery, through the capillary to a cell. Any waste is passed through capillary to the vein.

Science | Year 6 | Animals Including Humans | The Circulatory System: Functions | Lesson 2



inferior vena cava

right ventricle

...veins which supply the heart), **aortic arch** (arteries branch off from here to the head, neck and arms), the **descending thoracic aorta** (which branches off to supply blood to the ribs and chest) and the **abdominal aorta** (which branches off to supply major organs in the body).

Vena Cavae: The **superior vena cava** and **inferior vena cava** are the two largest veins in the body. The **superior vena cava** brings deoxygenated blood from the head, neck, arms and chest to the heart. The **inferior vena cava** brings deoxygenated blood from the legs, back, abdomen and pelvis to the heart.



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The Circulatory System Reading Comprehension

Read the questions and specific instructions carefully. Refer to the Functions of the Circulatory System Information Sheet.

1. What are the three main parts of the circulatory system?

2. Which is the most important part of the circulatory system? Give reasons for your answer.

3. Why is it called the 'circulatory' system?

4. 'The capillaries just connect arteries and veins so aren't very important.' Is this statement a fact or an opinion?

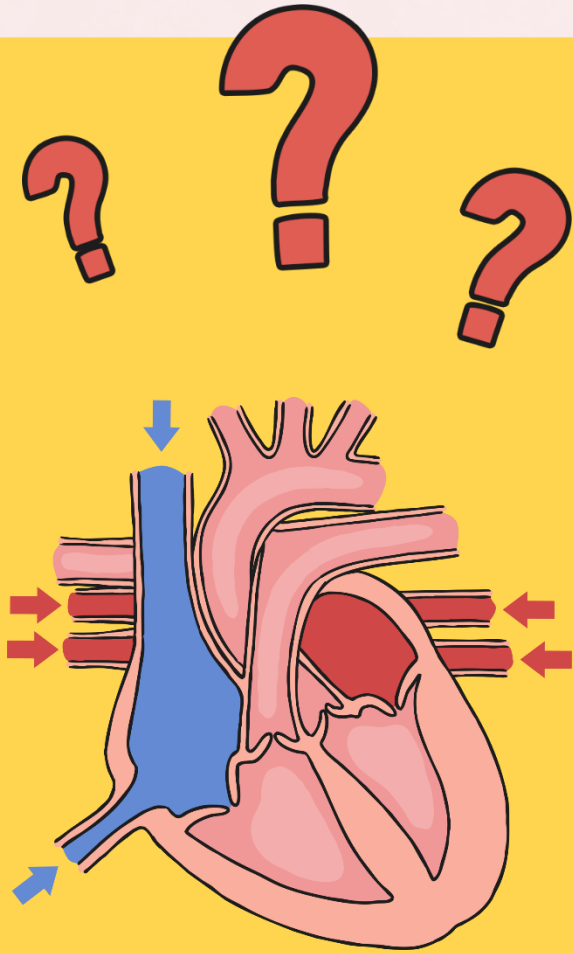
5. Which part of the lungs are directly connected to another part of the circulatory system? How do you know?

6. What is the role of the intercostal muscles and diaphragm?



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Game



Now you will need to use the knowledge you have learnt about the functions of the circulatory system to create a Circulatory System Game!

Before you start:

Do you have any questions about what you have read?

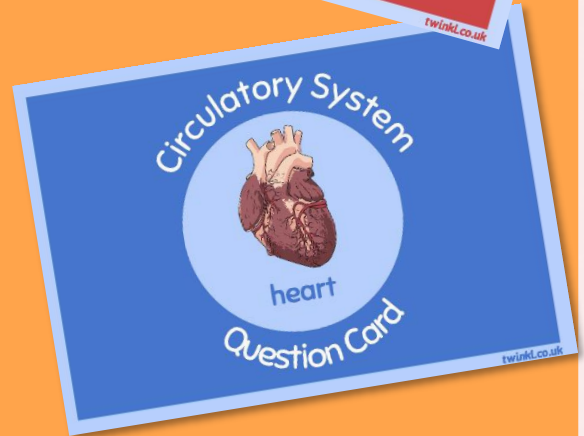
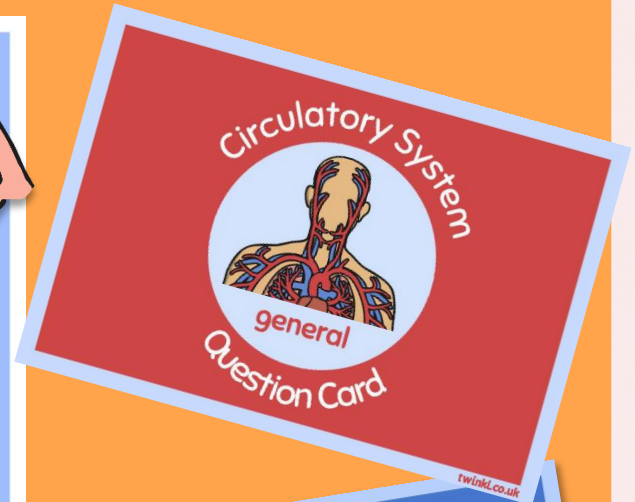
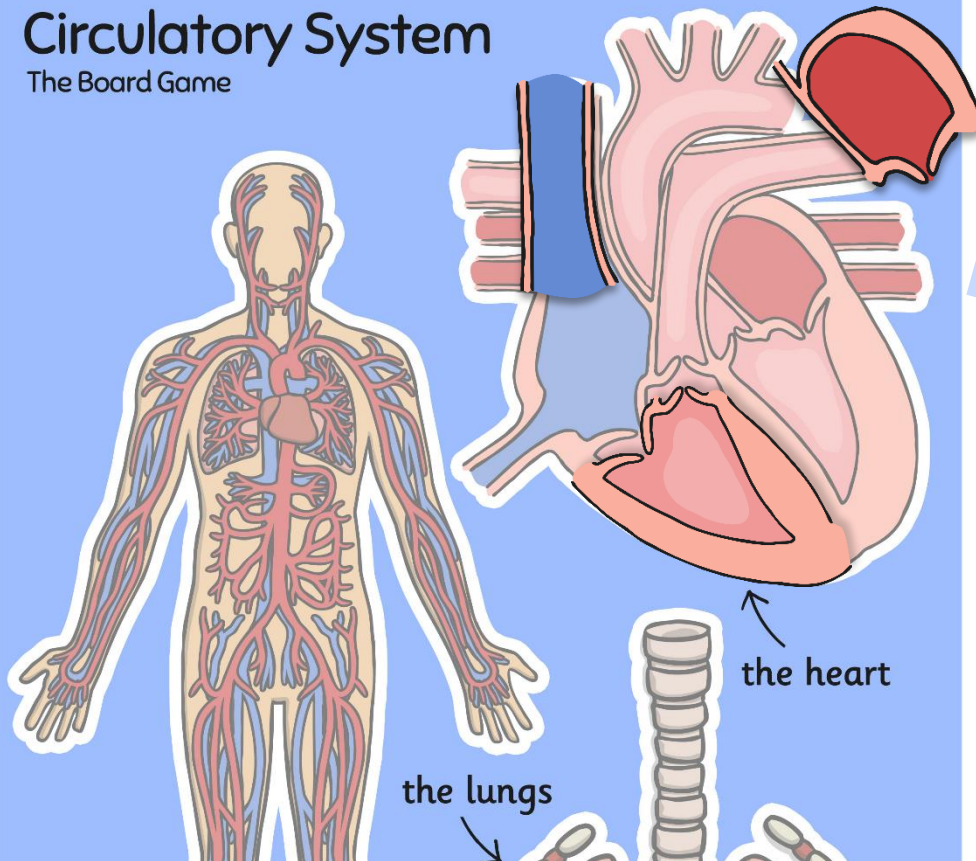
Was there any functions you were unsure of?

Now you will be shown three examples of how you can create your game.

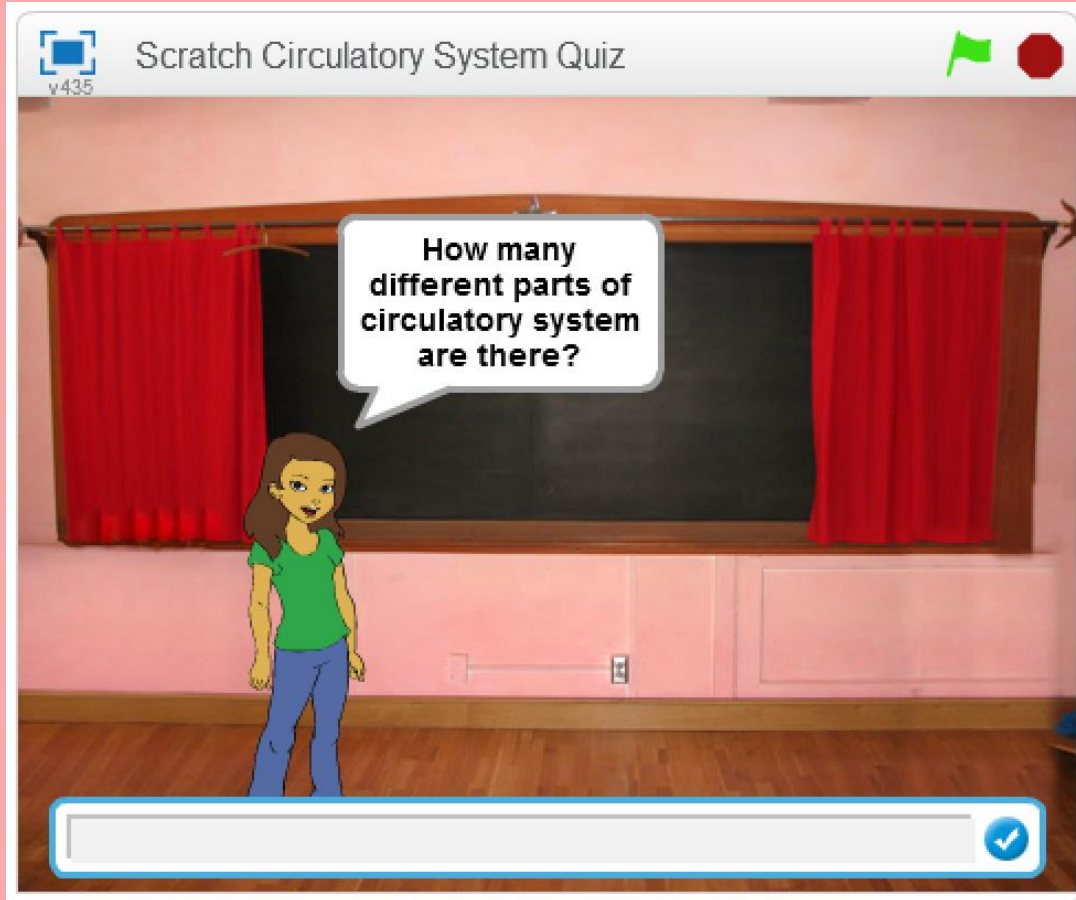
Board Game

Circulatory System

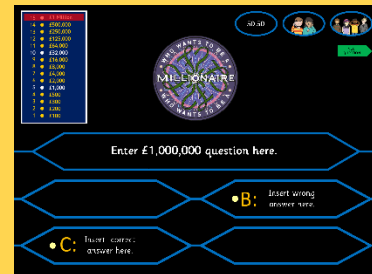
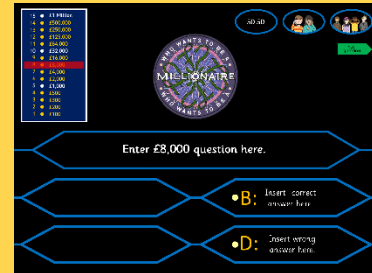
The Board Game



Scratch Game



Who Wants to Be a Millionaire




The Circulatory System Game



1. You will need to plan the game you want to create.
2. Ask an adult to approve your game.
3. Create your game!

Functions of the Circulatory System



General Functions of the Circulatory System

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inferior vena cava **right ventricle**

The Circulatory System Game Plan

What type of game do you want to create? Circle one:

Board Game TV Quiz Computer Quiz Own idea

Explain your game:

List what you need to create your game. (Remember it has to be realistic!)

| General questions and answers about the circulatory System | Specific questions and answers about the lungs | Specific questions and answers about the heart |
|--|--|--|
| | | |

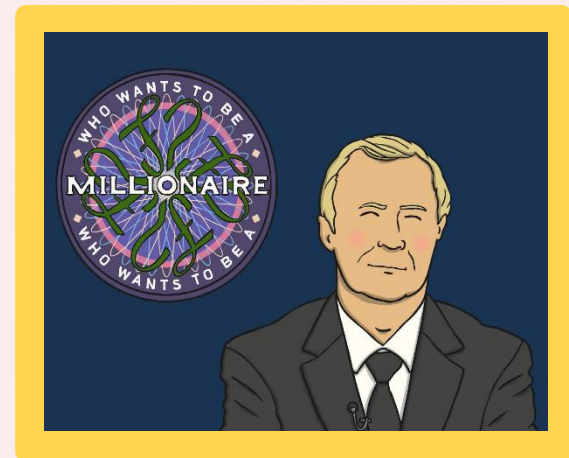
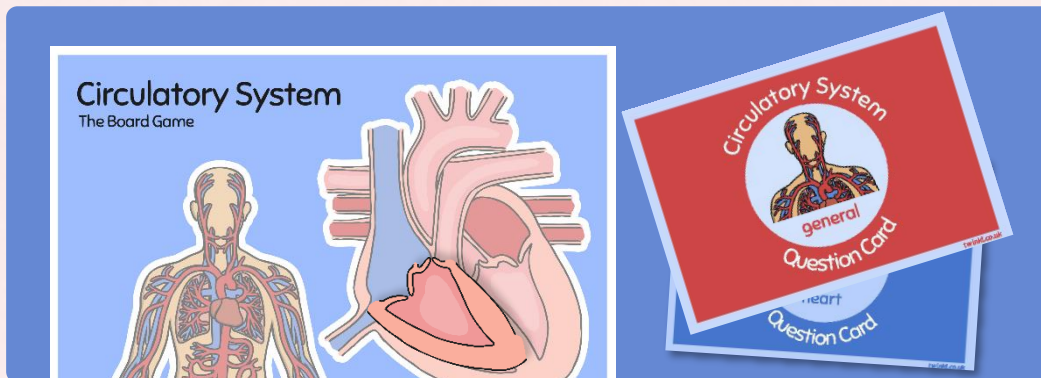
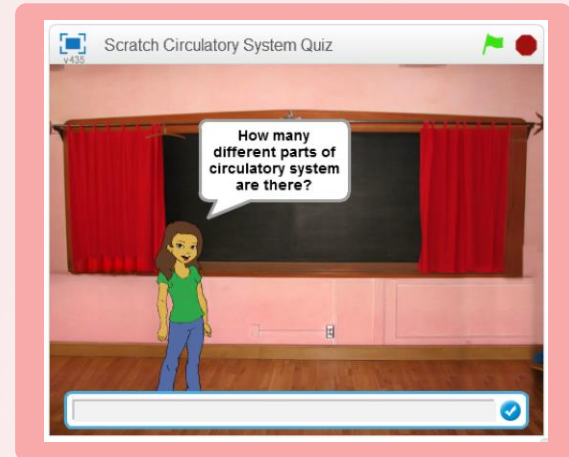


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Play The Circulatory System Game



- 1) Play the game.
- 2) You can use your **Functions of the Circulatory System Information Sheets** to check if answers are correct, but only after you give an answer!



Aim



- I can describe the functions of the main parts of the circulatory system.

Success Criteria

- I can explain the main functions of the heart, lungs and blood vessels.
- I can describe the functions of parts of the heart and lungs.

