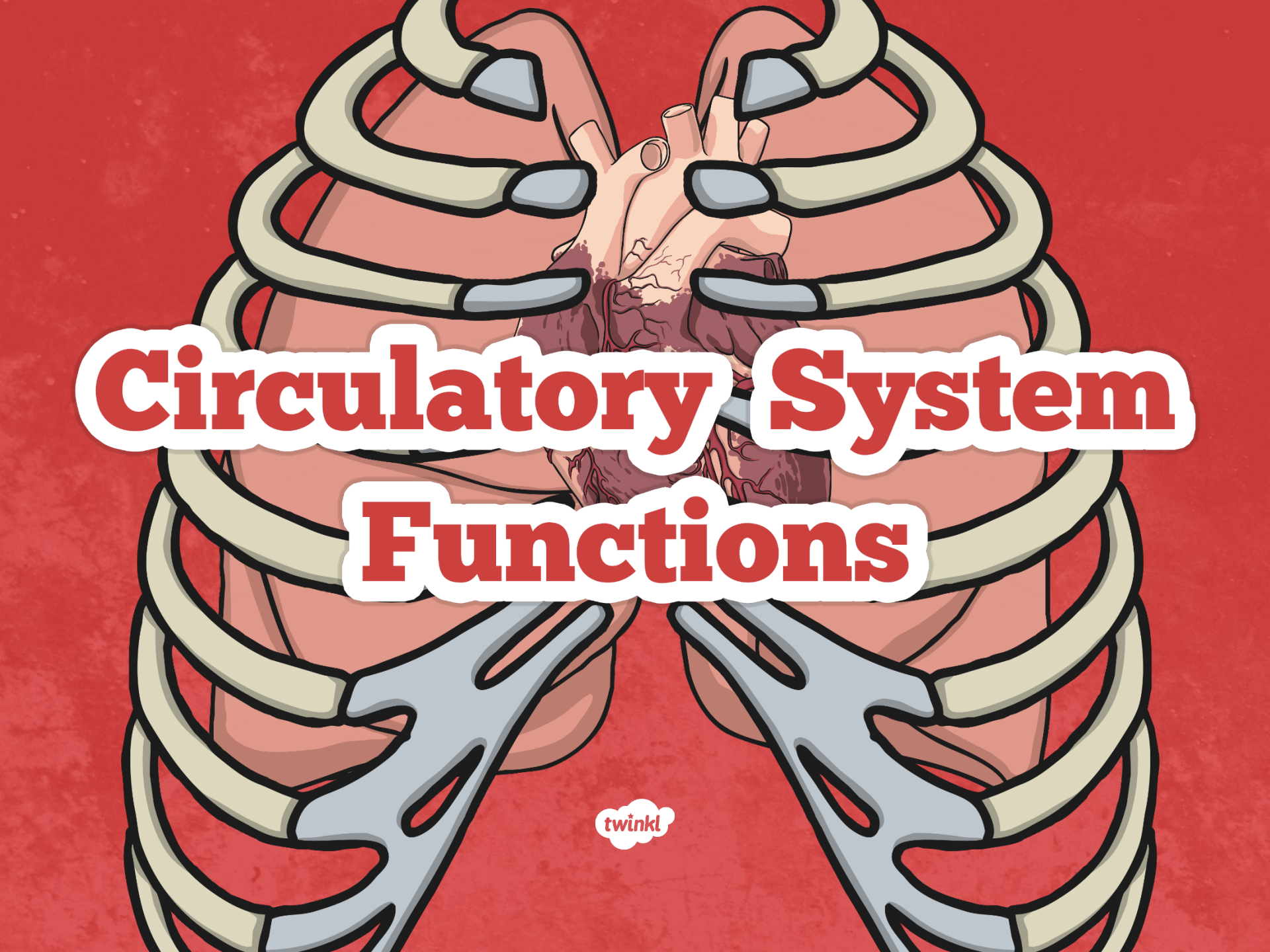




Science

Animals Including Humans

An anatomical illustration of the human circulatory system. The heart is centrally located, with major blood vessels branching out to the lungs and the rest of the body. The ribcage is shown in a stylized, cartoonish manner with yellowish-brown ribs and greyish-blue intercostal muscles. The background is a solid red color.

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

The Circulatory System

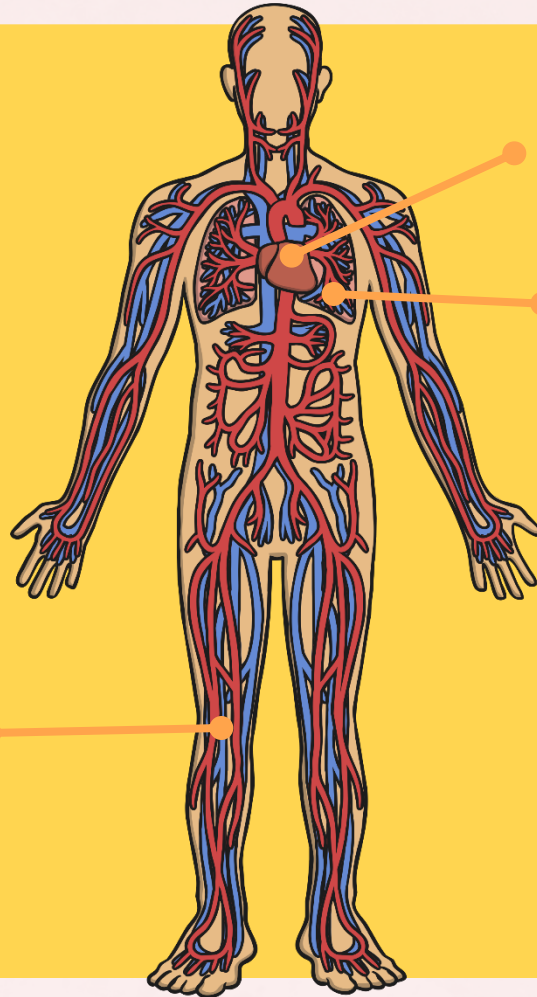


Label the main parts
of the circulatory
system:

Blood vessels

Heart

Lungs

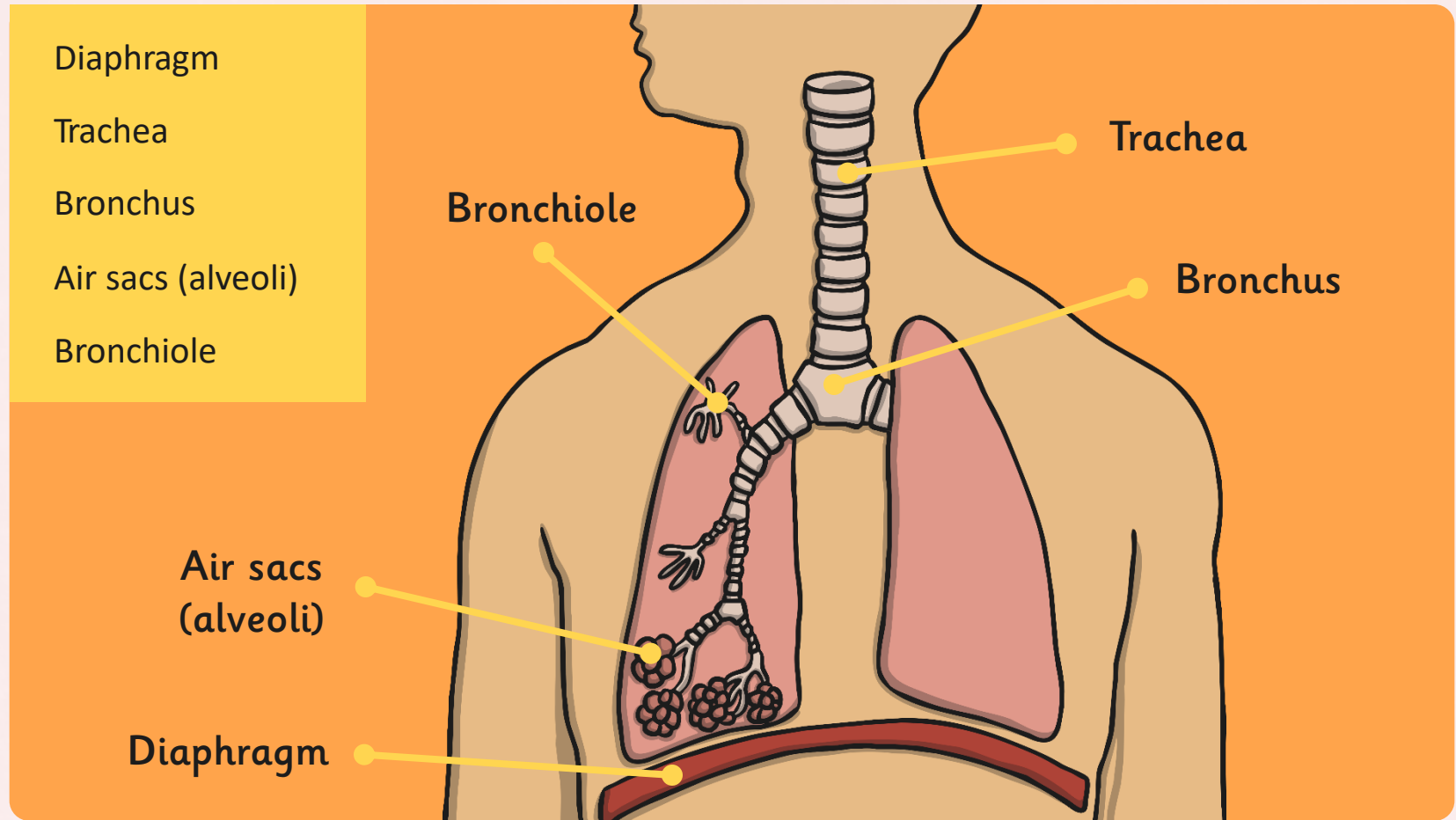


Heart

Lungs

Blood vessels

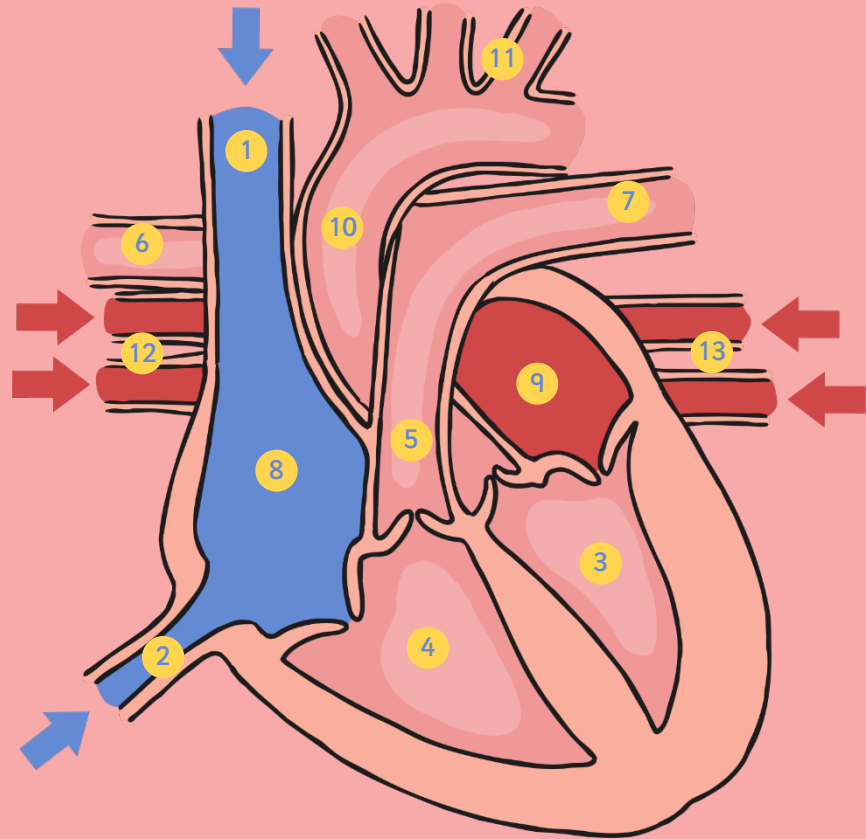
The Circulatory System: Lungs



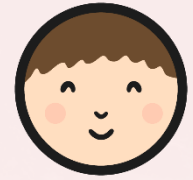
The Circulatory System: Heart



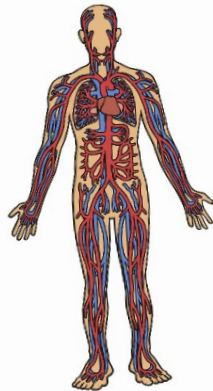
- ① Superior vena cava
- ② Inferior vena cava
- ③ Left ventricle
- ④ Right ventricle
- ⑤ Pulmonic valve
- ⑥ Pulmonary artery (right)
- ⑦ Pulmonary artery (left)
- ⑧ Right atrium
- ⑨ Left atrium
- ⑩ Aortic valve
- ⑪ Aorta
- ⑫ Right pulmonary veins
- ⑬ Left pulmonary veins



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.



inferior vena cava

right ventricle

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...vessels 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?

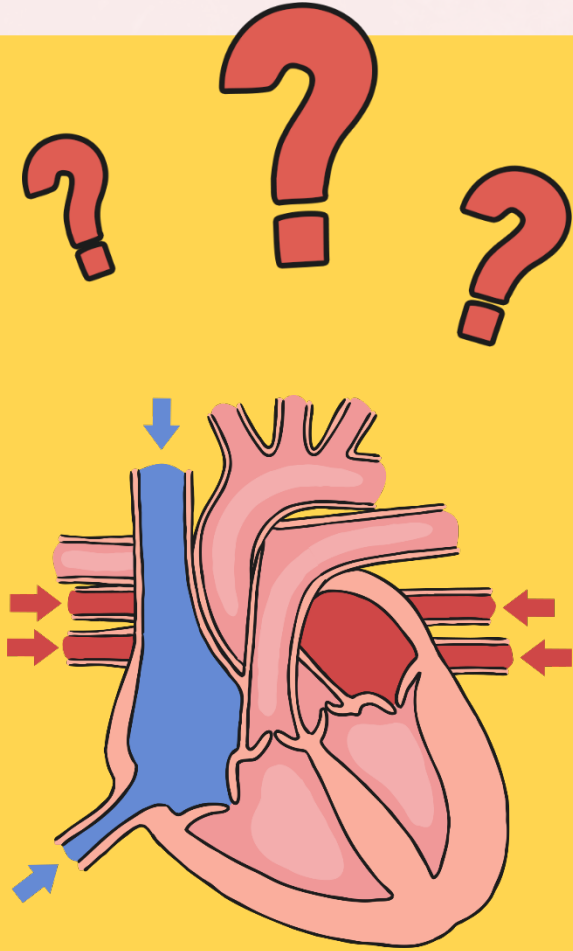
5. Which part of the lungs are directly connected to another part of the circulatory system? How do you know?

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:

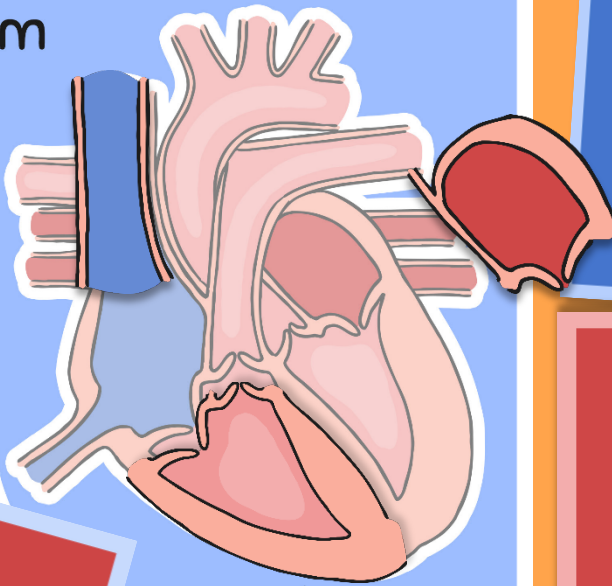
Do you have any questions about what you have read?

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



the heart

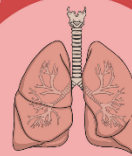
lungs

Circulatory System
heart
Question Card



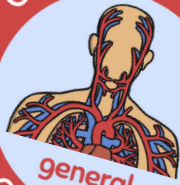
heart

Circulatory System
lungs
Question Card



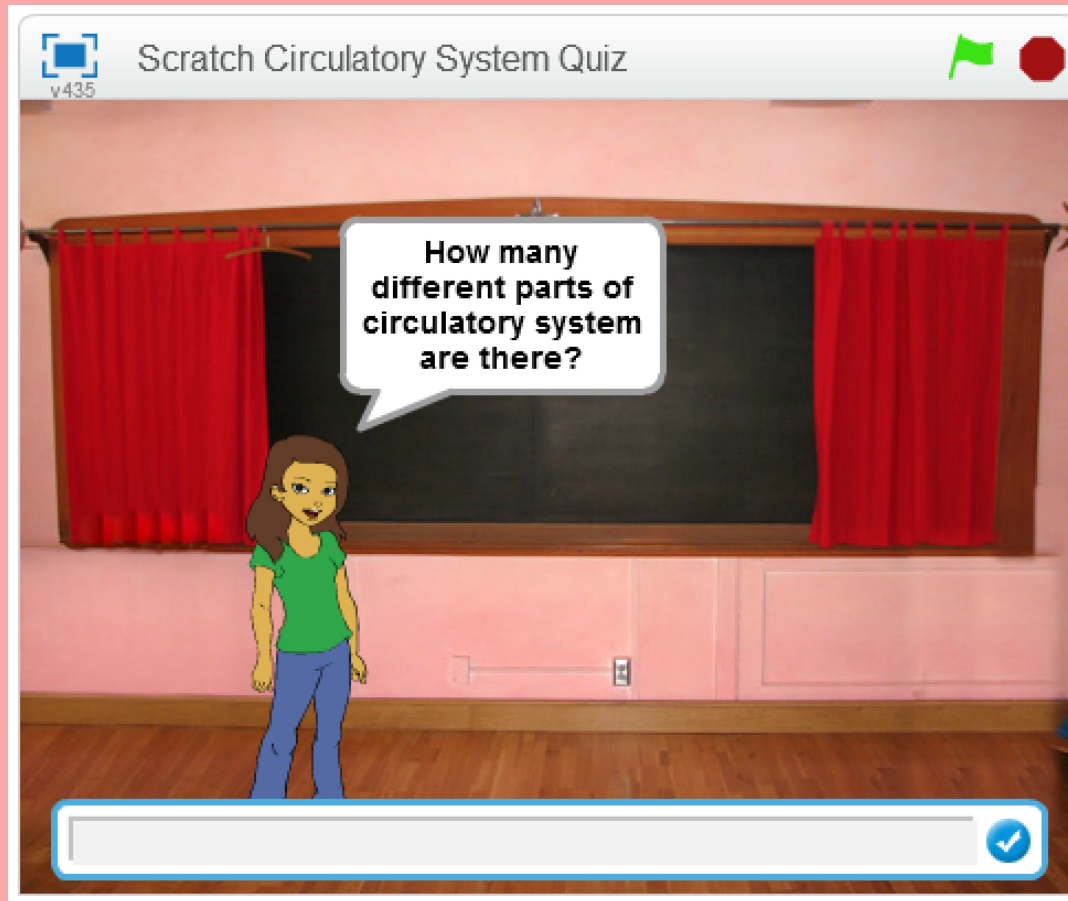
lungs

Circulatory System
general
Question Card

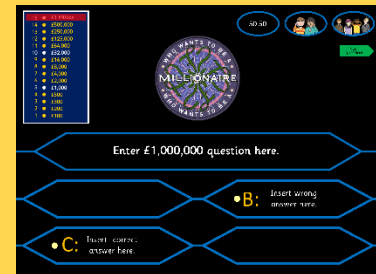
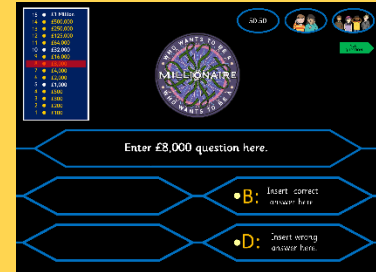


general

Scratch Game



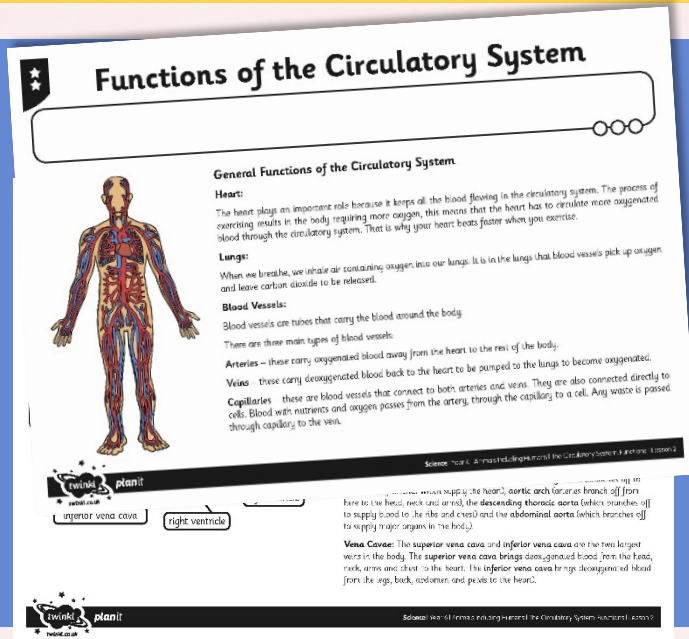
Who Wants to Be a Millionaire



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!



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

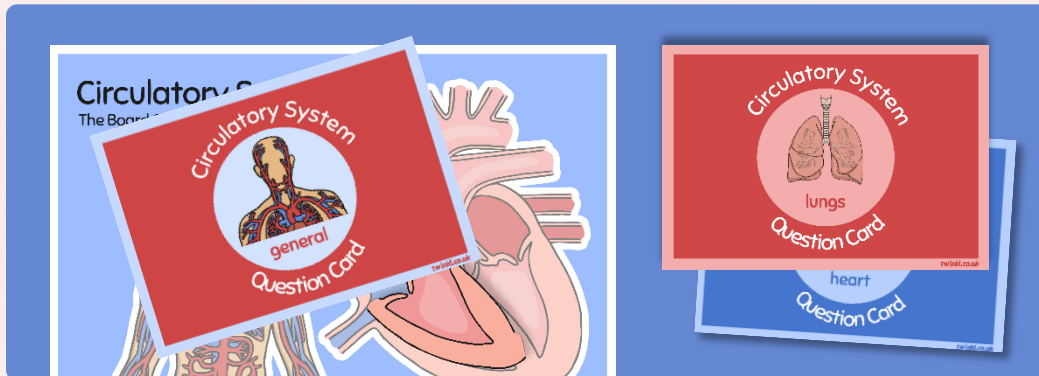
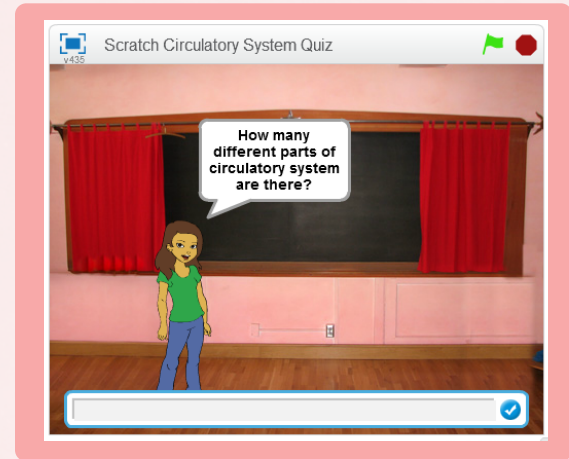


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Play The Circulatory System Game



- 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!
- 3) Give feedback to the group who made the game, focusing on the quality and accuracy of the questions and answers.



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.

