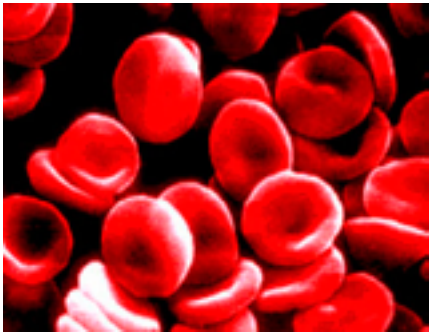


# Two Blood Circulation Games

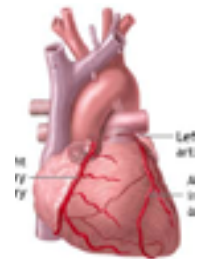


Become a blood corpuscle! Red or white

Travel from



to



and all round the body.  
Stay alive!

## Get to know your organs in this Connect 4

Eating fatty foods is bad for this organ.

It has four valves.

Blood travels through these small tubes.

They take in oxygen.

# Blood Circulation Game

Developed by June Agar at Rushey Mead School in Leicester. All the bits are here to make a board game, but some work by you and/or your children is needed. You might want to consider getting a group of children to construct the game for other children to play. Please send us photos of your game boards!

We have also added the Heart and Lungs Connect Four game. You will need to enlarge the gameboard to play it well.

Last update and partial revision: 18th January 2021

Webaddress:

<<http://www.collaborativelearning.org/bloodcirculation.pdf>>

Collaborative Learning = Oracy in Curriculum Context

**makes challenging curriculum accessible.**

**improves social relations in the classroom.**

**provides scaffolding for exploratory talk.**

**Basic principles behind our talk  
for learning activities:**

**Build on prior knowledge.**

**Move from concrete to abstract.**

**Ensure everyone works with  
everyone else.**

**Extend social language into  
curriculum language.**

**Provide motivating ways to go over  
the same knowledge more than  
once.**

**If you can't talk it through with others, you  
won't be able to write about it confidently!**

COLLABORATIVE LEARNING PROJECT

Project Director: Stuart Scott

We support a network of teaching professionals to develop and disseminate accessible talk-for-learning activities in all subject areas and for all ages.

17, Barford Street, Islington, London N1 0QB UK Phone: 0044 (0)20 7226 8885

Website: <http://www.collaborativelearning.org>

<http://www.collaborativelearning.org/bloodcirculation.pdf>

# Blood Circulation Game

## Learning Objectives:

To model and reinforce the circulation of the blood and the part played by the lungs, the heart and oxygen in this process. Children will need to have done some work on this and/or have access to information books or an informative sibling or adult.

## Preparation:

Construct your game board. Use the plan provided to draw a fine picture of the body or part of it; say just one half and the bits in the middle! Put Lung cards on the appropriate box. Share Muscles and Organ cards between relevant activity squares. Have ready Emergency cards and lots of counters or cubes to use as oxygen counters. You also need one or two dice and a marker (picture of a blood corpuscle?) for each child.

## Rules:

The game is for groups of 3–6 children, working collaboratively. The aim is to go twice around the circuit in the role of a blood corpuscle without 'dying' (ie running out of oxygen). There are no winners in this game, just losers.

Everyone starts in the heart and has to throw an even number and double it to start modelling the push from the heart muscle. They go to the lungs and, when they land on a lung square, pick up a Lung Card and take oxygen counters. Some will land twice on lung squares and get two Lung cards.

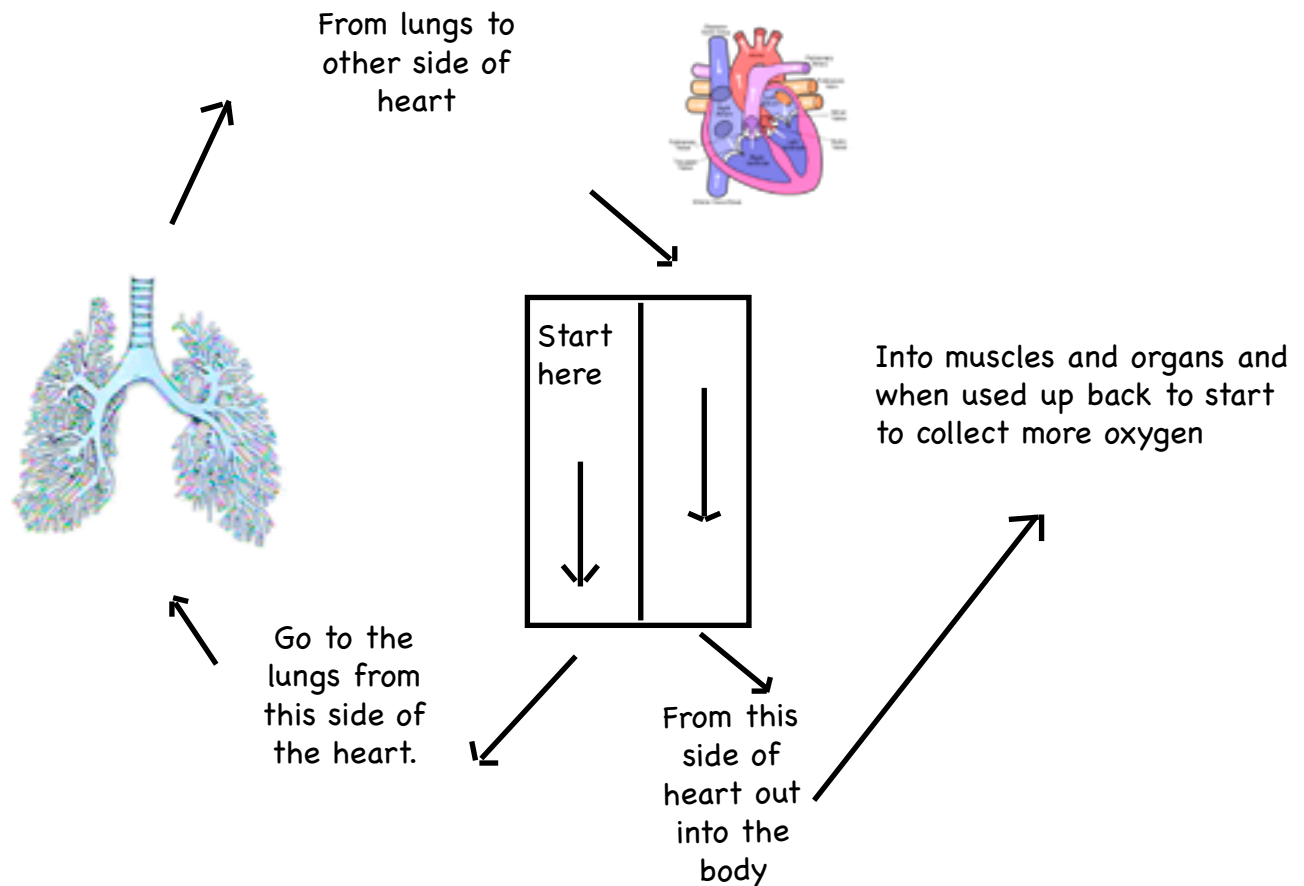
They then return to the heart and wait for an even number, double it again to give them the push to go off through the arteries and veins. When they land on a Muscles and Organs square they have to take a card and 'use up' the number of oxygen counters the activity in that part of the body needs. They should then return to the heart for more oxygen. If they have to give more oxygen than they have in store they can take an Emergency card, but can only use one during the game.

If you want to write more cards please do so. If you want to send them to us together with your gameboards please please do and we'll share them with others.

# Lung cards

Take 5 oxygen counters.	Take 6 oxygen counters.	Take 7 oxygen counters.	Take 8 oxygen counters.
Take 9 oxygen counters.	Take 10 oxygen counters.	Take 11 oxygen counters.	Take 12 oxygen counters.
Emergency cards	Take 6 deep breaths and 6 oxygen counters.	Take 4 deep breaths and 4 oxygen counters.	Take 9 deep breaths and 9 oxygen counters.
Take 6 deep breaths and 6 oxygen counters.	Take 5 deep breaths and 5 oxygen counters.	Take 4 deep breaths and 4 oxygen counters.	Take 6 deep breaths and 6 oxygen counters.
Take 8 deep breaths and 8 oxygen counters.	Take 9 deep breaths and 9 oxygen counters.	Take 4 deep breaths and 4 oxygen counters.	Take 6 deep breaths and 6 oxygen counters.
Muscles and organs cards	Use up 4 oxygen counters.	Use up 5 oxygen counters.	Use up 3 oxygen counters.
Use up 3 oxygen counters.	Use up 4 oxygen counters.	Use up 5 oxygen counters.	Use up 6 oxygen counters.
Use up 7 oxygen counters.	Use up 8 oxygen counters.	Use up 9 oxygen counters.	Use up 10 oxygen counters.

# How to Make the Blood Circulation Game Board



It is up to you how large or complicated you make this board. The blood could go wandering off into the whole body. You could just provide an arm with opportunities to use up oxygen at shoulder muscles, biceps, wrists and fingers. We have given you the writing for these squares. If players land on a muscles and organs square they must give up their oxygen and then go straight back to the heart for more. So you need to provide a short cut from arteries to veins. Many think that the blood has to course all the way round before it can return. This game also clarifies the dual role of the heart.

Below are the labels for the game board.

Lungs are where the blood picks up oxygen.	Shoulder muscles. When you move your muscles use up oxygen.	Biceps. When you move your muscles use up oxygen.	Wrist muscles. When you move your muscles use up oxygen.
Finger muscles. When you move you muscles use up oxygen.	Heart. Wait here for any even number and double it.	Lungs. Pick up your oxygen counters here.	Heart. Start your journey here.

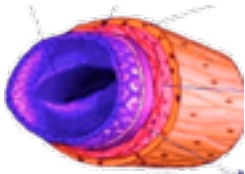
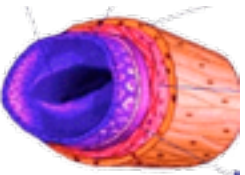
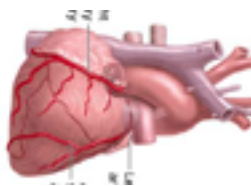
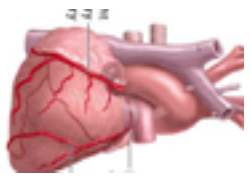


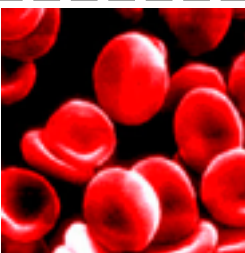

# The Heart and Lungs Connect Four Game

How to play:

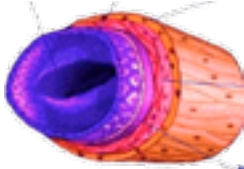
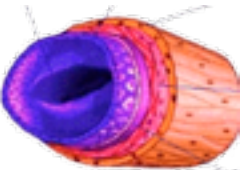
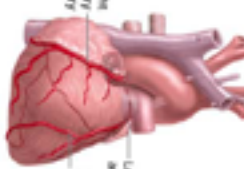
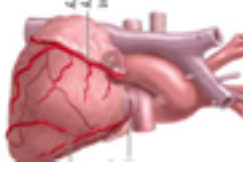


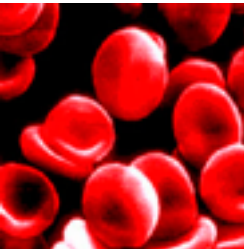
1. One can play against one or better two against two because it stimulates more discussion.
2. Put the cards in two piles face down.
3. Each side should take turns to pick up one of their cards and match it to the description written on the board.
- 4.. The first player to get four cards in a row wins. The row can be vertical, horizontal or diagonal.

# The Heart and Lungs Connect Four Game Board

<p>They take oxygen in oxygen.</p>	<p>They have valves so the blood can only travel one way.</p>	<p>Exercise makes it beat faster.</p>	<p>Car fumes and air pollution are bad for these.</p>	<p>It has four valves.</p>	<p>Blood travels through these small tubes.</p>	<p>It travels to every part of the body.</p>	<p>Eating fatty foods is bad for this organ.</p>
<p>Blood travels through these small tubes.</p>	<p>They are protected by the rib cage.</p>	<p>It carries oxygen round the body.</p>	<p>It travels to every part of the body.</p>	<p>It is a muscle.</p>	<p>Blood with no oxygen is pumped back to these.</p>	<p>They have valves so the blood can only travel one way.</p>	<p>It is dark red when it does not contain oxygen.</p>
<p>It pumps blood around the body.</p>	<p>It has four valves.</p>	<p>Blood collects oxygen from these.</p>	<p>The pulse measures beats from this.</p>	<p>Car fumes and air pollution are bad for these.</p>	<p>We have two of these.</p>	<p>They are protected by the rib cage.</p>	<p>It carries oxygen round the body.</p>
<p>It is bright red when full of oxygen.</p>	<p>Smoking is bad for them.</p>		<p>Eating fatty foods is bad for this organ.</p>	<p>It pumps blood around the body.</p>	<p>Exercise makes it beat faster.</p>	<p>It is bright red when full of oxygen.</p>	<p>They connect all parts of the body to the heart.</p>
	<p>Blood collects oxygen from these.</p>	<p>We have two of these.</p>	<p>Smoking is bad for them.</p>	<p>They take oxygen in oxygen.</p>	<p>Blood with no oxygen is pumped back to these.</p>	<p>The pulse measures beats from this.</p>	<p>They connect all parts of the body to the heart.</p>

veins and arteries	lungs	blood	heart	
veins and arteries	lungs	blood	heart	
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