

9 The heart and circulation – Part 1

Name: _____ Class: _____ Date: _____

Vocabulary

Write each word three times.

English	Write it 3 times (English)		
circulatory system	_____	_____	_____
pump	_____	_____	_____
heart	_____	_____	_____
blood vessels	_____	_____	_____
valves	_____	_____	_____
mammal	_____	_____	_____
double circulation	_____	_____	_____
lungs	_____	_____	_____
high pressure	_____	_____	_____
oxygen	_____	_____	_____
muscle	_____	_____	_____
septum	_____	_____	_____
atrium	_____	_____	_____
ventricle	_____	_____	_____
oxygenated	_____	_____	_____

English	Write it 3 times (English)		
deoxygenated	_____	_____	_____

Recall

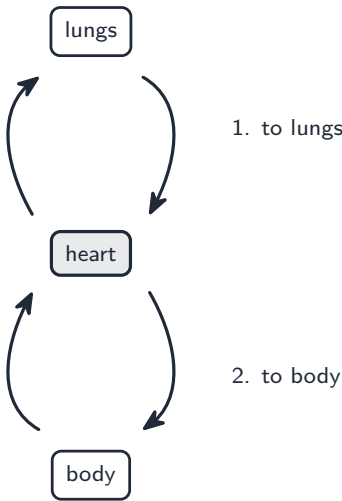
The **circulatory system** carries blood around the body. It has a **pump** (the **heart**), **blood vessels** , and **valves** for one-way flow.

New ideas

Read these first, then do the Practice.

■ 1 Double circulation

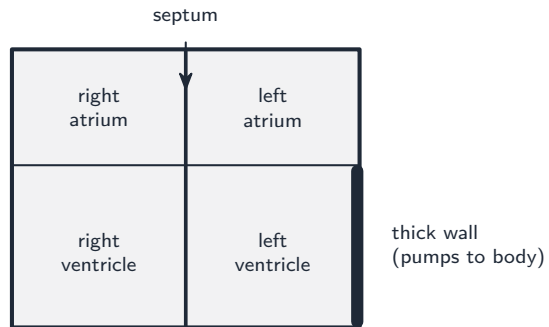
A **mammal** has a **double circulation** : the blood passes through the heart **twice** on each trip round the body – once to the **lungs** , once to the rest of the body.



This lets the blood be pumped again at **high pressure** before going to the body, so **oxygen** arrives quickly.

■ 2 The heart

The heart is made of **muscle** . The **septum** divides it into a right and a left side; each side has an **atrium** (top) and a **ventricle** (bottom):



- the left ventricle has the **thickest wall** – it pumps blood all round the body;
- the septum keeps **oxygenated** and **deoxygenated** blood apart.

Watch out: the **left ventricle** has the thickest wall because it pumps blood all round the body; the right side only pumps to the lungs. The **septum** keeps oxygenated and deoxygenated blood from mixing.

Practice

Try these in order.

9.1 Name the three parts of the circulatory system. [3]

9.2 What does “double circulation” mean? [2]

9.3 Name the four chambers of the heart. [2]

9.4 Why is the wall of the left ventricle the thickest? [1]

9.5 What is the job of the septum? [1]

9.6 Challenge. Explain why the wall of the left ventricle is much thicker than the wall of the right ventricle. [2]