

Alavi

Primary



Learner's Book



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Introduction

The Primary Science book has been developed to match the Cambridge International Examinations Primary Science curriculum framework. It is a fun, flexible and easy to use course that gives both learners and teachers the support they need. In keeping with the aims of the curriculum itself, it encourages learners to actively engage with the content, and develop enquiry skills as well as subject knowledge.

The content pages contain many images and questions that you can use as a basis for class discussions. The emphasis in this stage is on linking what learners know about everyday life to scientific ideas.

Throughout the book, you will find ideas for practical activities which will help learners to develop their Scientific Enquiry skills as well as introduce them to the thrill of scientific discovery.





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CHAPTER

1

Humans



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

Topic	In this topic, learners will:
1.1. Body organs	identify organs in the body.
1.2. The heart	explain how the heart works.
1.3. The lungs and breathing	complete sentences about the lungs and breathing.
1.4. The digestive system	explain how the digestive system works.
1.5. What do the kidneys do?	investigate factors that affect kidney function.

Word bank

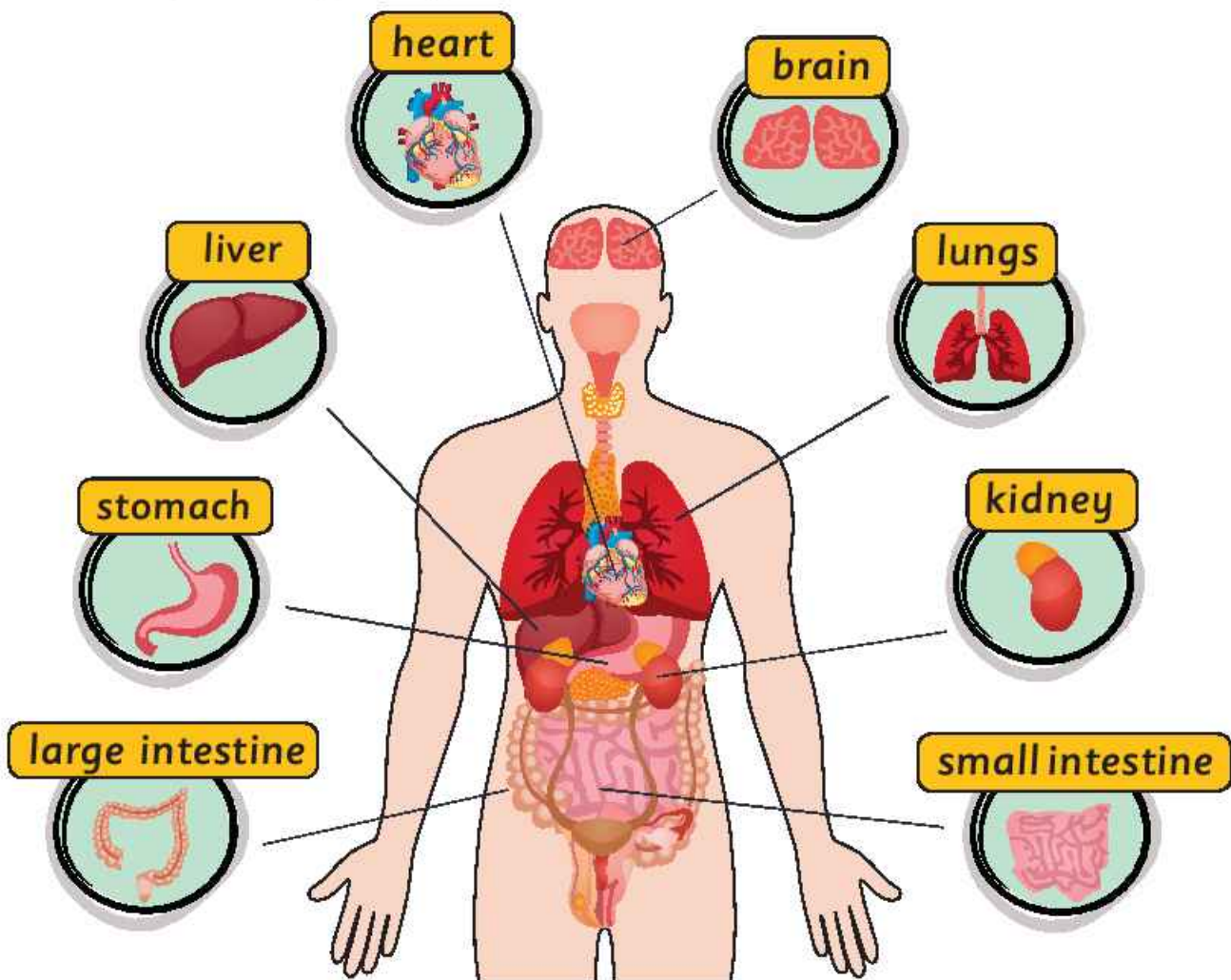
1	organ	2	brain	3	lung	4	heart	5	liver
6	kidney	7	stomach	8	small intestine	9	large intestine	10	major
11	blood	12	chest	13	oxygen	14	rib	15	pump
16	through	17	circulation	18	heart beat	19	side	20	contain
21	blood vessel	22	carry	23	carbon dioxide	24	waste product	25	contract
26	beat	27	pulse	28	pulse rate	29	increase	30	breathe
31	breathe in	32	breathe out	33	windpipe	34	get rid of	35	digestive system
36	chew	37	chop up	38	swallow	39	gullet	40	digest
41	digestive juice	42	rib cage	43	bean-shaped	44	filter	45	remove
46	exertion	47	excess	48	urine	49	dialysis		

1.1. Body organs

You know what the outside of your body looks like. But what's inside your body?

Think of as many inside parts as you can.

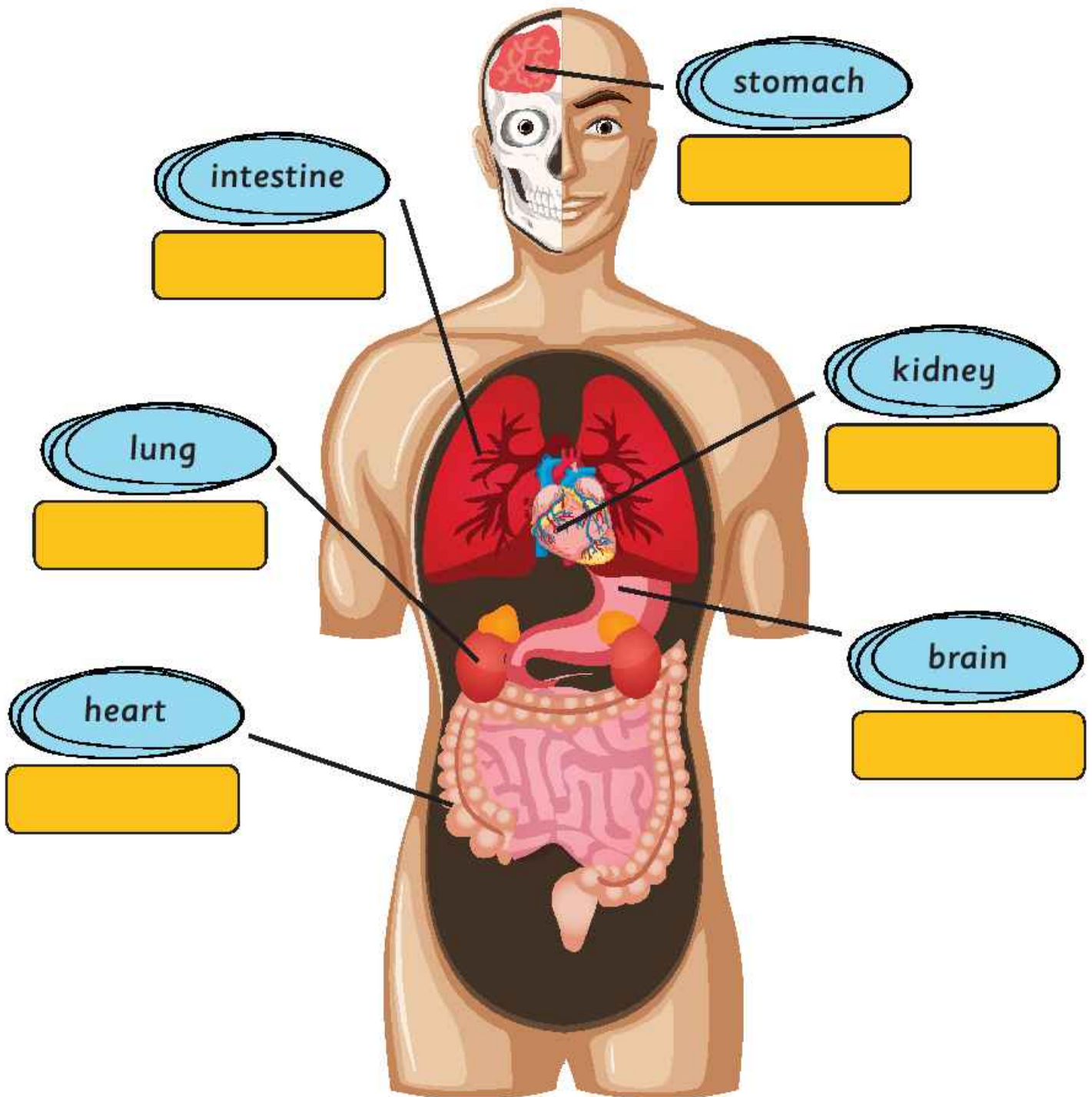
The parts inside your body are called **organs**. The body organs do different jobs to keep you alive and healthy. Different organs work together to form organ systems.



The major body organs are the heart, stomach, intestines, lungs, kidneys and brain.

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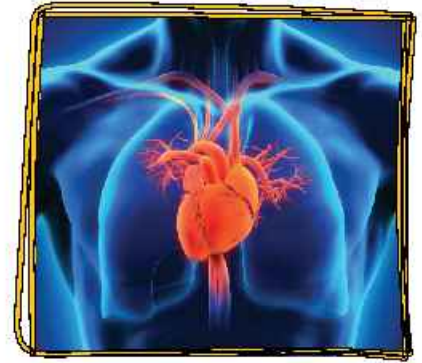
Look at the diagram. The organs have the wrong labels. Write the correct name for each organ in the space next to the label.



* 1.2. The heart

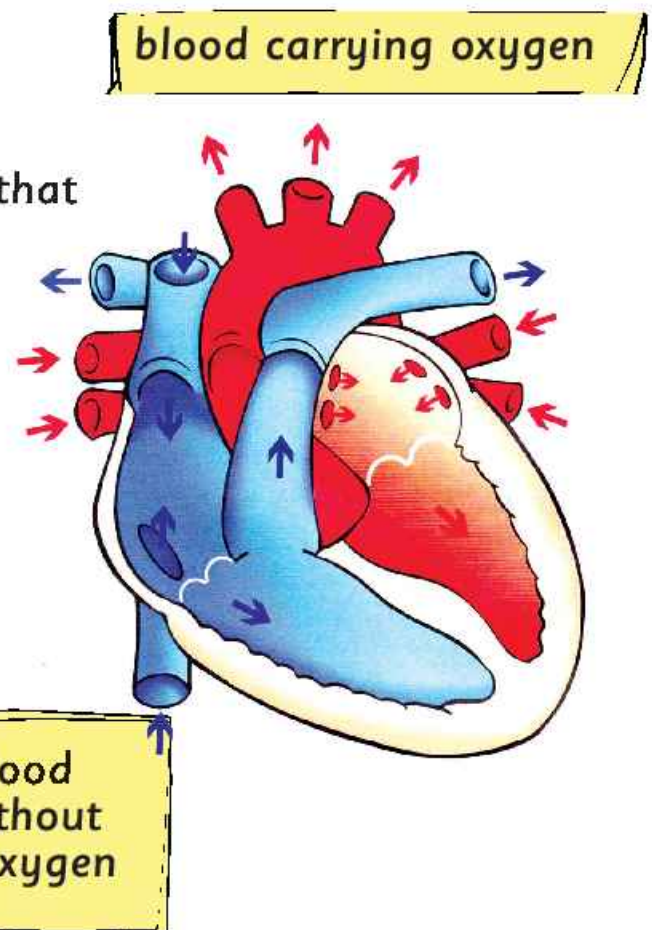
Put your hand on your chest. Can you feel your **heart** beating? Why does your heart beat?

Make a fist with your hand. That's how big your heart is. Your heart is found inside your chest, slightly to the left. It is protected by the ribs.



Your heart is a special muscle. Its job is to pump blood through your body. This process is called **circulation**. Every time the heart muscle squeezes to pump blood, you can feel a heartbeat. It takes less than a minute to pump blood to every part of your body. The heart does this all the time and never stops.

The heart has two sides. The left side (red in the diagram) pumps blood that contains oxygen all around the body. The right side (blue in the diagram) pumps blood without oxygen to the lungs only.

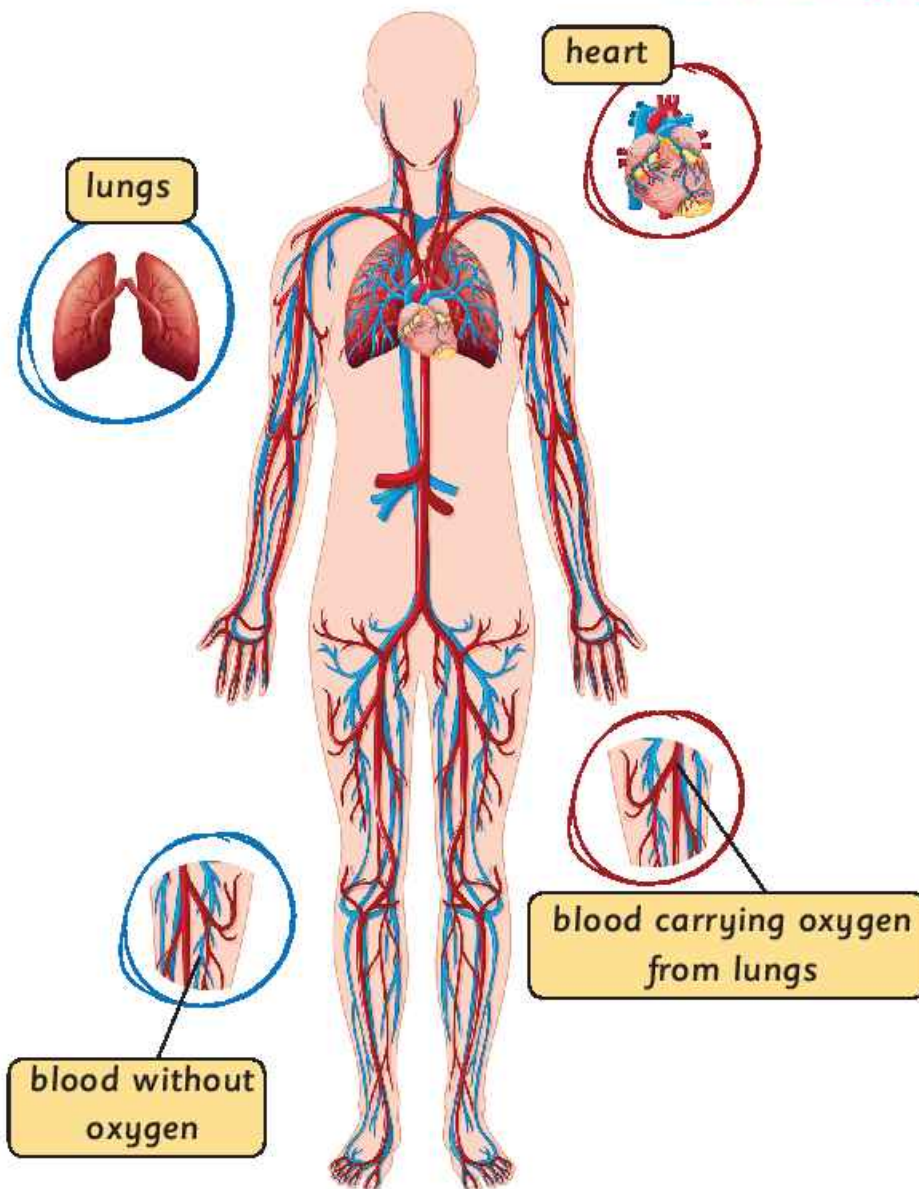


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Blood is a red liquid that flows around the body in **blood vessels**. Look at the inside of your wrist. Sometimes you can see the blood vessels through your skin.

Blood vessels run from the heart to the lungs, around the body and back to the heart.

The blood carries food and oxygen to all parts of the body. It also picks up waste products from the body and carries them to organs which can get rid of them. The kidneys and lungs are two of these organs. The heart, blood vessels and blood form the **circulatory system**.



The heart is a muscle that never rests. It contracts about 72 times every minute to keep pumping blood around the body. The blood carries food and oxygen to all parts of the body.

Explain the way the heart works




Circle the letter of the correct answer to the following questions about the heart.

The heart pumps blood that ...

- a) contains oxygen only.
- b) contains carbon dioxide only.
- c) contains both oxygen and carbon dioxide.

The heart pumps blood to ...

- a) all parts of the body.
- b) the lungs only.
- c) the kidneys only.

-  The left side of the heart pumps blood that contains oxygen to the rest of the body.
-  The right side pumps blood without oxygen to the lungs.
-  The blood carries food and oxygen to all parts of the body and carries away waste products from the different parts of the body.