



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE Primary Science

Workbook 6

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Contents

1 The human body

1.1	The circulatory system	2
1.2	The respiratory system	6
1.3	The reproductive system	10
1.4	Diseases	14

2 Materials: properties and changes

2.1	Properties of substances	18
2.2	Thermal and electrical conductors	23
2.3	Reversible changes	28
2.4	Chemical reactions	33

3 Rocks, the rock cycle and soil

3.1	Igneous rocks	37
3.2	Sedimentary rocks and fossils	40
3.3	Metamorphic rocks and the rock cycle	43
3.4	Soil	46

4 Food chains and food webs

4.1	Food chains, food webs and energy transfers	51
4.2	Harm to food chains and food webs	55

5 Forces and electricity

5.1	Mass and weight	60
5.2	The effects of forces	62
5.3	Floating and sinking	68
5.4	Different circuits and circuit diagrams	74

6 Light and the solar system

6.1	Reflection	78
6.2	Refraction	82
6.3	The solar system	86

How to use this book



This workbook provides questions for you to practise what you have learned in class. There is a topic to match each topic in your Learner's Book. Each topic contains the following sections:

Focus: these questions help you to master the basics

Practice: these questions help you to become more confident in using what you have learned

Challenge: these questions will make you think more deeply

Focus

- 1 Explain why the pencil in the picture appears to be bent. Cross out the incorrect alternatives in the sentences below.
The pencil is bent because of reflection / refraction.
A ray of light passes from the pencil through the water / air to the glass. The ray bends / straightens when it passes through the glass to the air / water and into our eyes.
We see the bent pencil as a trick / optical illusion.



Practice

- 3 Circle the letter of the correct answer to each of the following questions.
 - a Your heart pumps blood through the body. This process is called ...
A heartbeat
B circulation
C pulsing
 - b The circulatory system is made up of the ...
A heart only
B heart and blood vessels
C heart, blood vessels and blood

Challenge

- 4 Class 6 measured the pulse rate and breathing rate of 10 people after they had jogged on the spot for three minutes. Here are their results.

Person	Breathing rate in breaths per minute	Pulse rate in heartbeats per minute
1	30	90
2	50	120
3	35	102
4	32	95
5	26	100
6	40	110
7	45	115
8	33	98
9	38	106
10	42	112

> 1.1 The circulatory system

Focus

- 1 Name the three parts of the circulatory system.

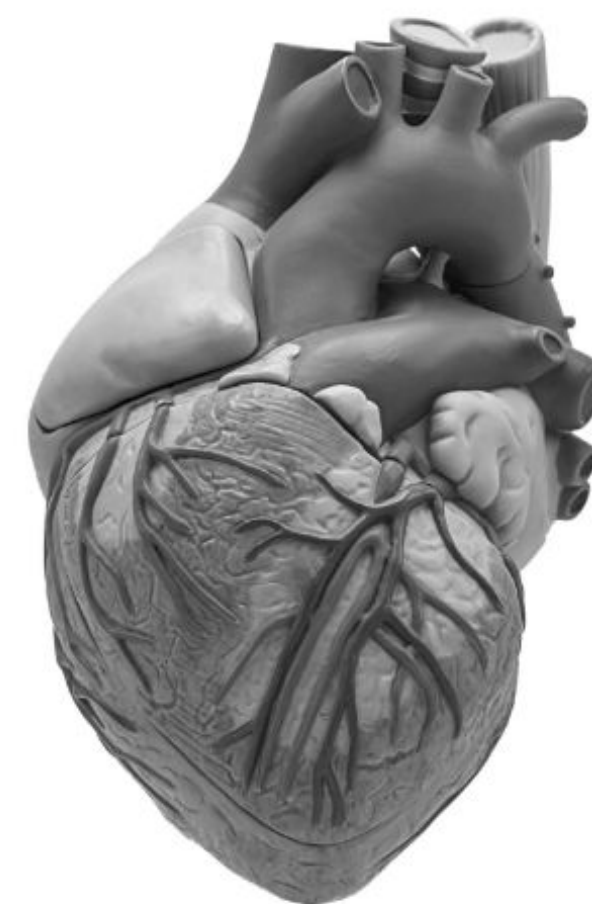
- 2 Use the words in the box to complete the sentences.
You will use some words more than once.

blood vessels	oxygen	blood
waste products	food	lungs

- a The heart pumps _____ through the body.
- b The left side of the heart pumps _____ that contains _____.
- c The right side of the heart pumps _____ without _____ to the _____.
- d Blood is carried in the _____.
- e Blood carries _____ and _____ to all parts of the body and takes away _____.

Practice

- 3 Circle the letter of the correct answer to each of the following questions.
- a Your heart pumps blood through the body.
This process is called ...
A heartbeat
B circulation
C pulsing
- b The circulatory system is made up of the ...
A heart only
B heart and blood vessels
C heart, blood vessels and blood
- c The left side of the heart pumps blood that contains ...
A oxygen
B no oxygen
C many different gases
- d The right side of the heart pumps blood to ...
A the brain
B the lungs
C the kidneys
- e Which blood vessels bring oxygen to all the body cells and carry away waste?
A arteries
B veins
C capillaries

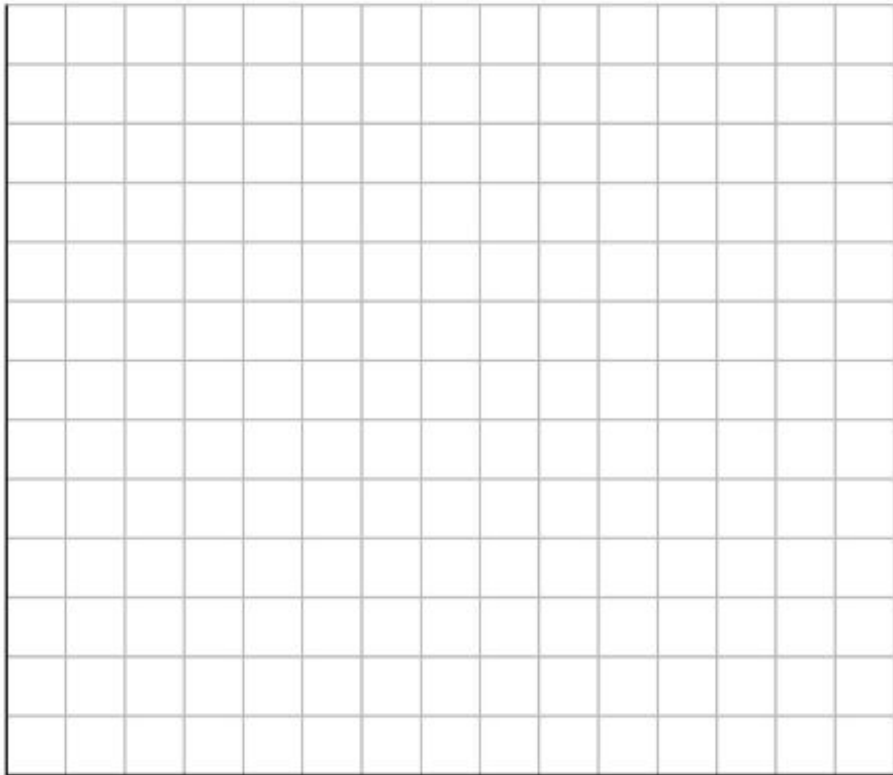


Challenge

4 Marcus measured his pulse rate while he was sitting still and then after doing different types of physical activities. These are his results.

Activities	Heartbeats per minute
Sitting still	72
Running on the spot	120
Playing football	150
Digging in the garden	80
Riding a bicycle	110

a Draw a bar chart of Marcus's results.



b When was Marcus's pulse rate lowest? Explain why.

c Which activity caused the highest pulse rate?

d Is there a measurement that needs to be checked?
If so, which one and why?

e Explain how Marcus could make this a fair test.

f Write a conclusion for Marcus's findings.

- g Predict how Marcus's pulse rate would change if he pedalled faster on the bicycle. Explain your answer.

> 1.2 The respiratory system

Focus

- 1 Use the words in the box to complete the sentences. You will use some words more than once.

blood	ribs	lungs	windpipe
nose	carbon dioxide	oxygen	mouth

We breathe in air through our _____ or

_____. The air we breathe in contains

_____ gas. The air moves down the

_____ and into our _____.

The _____ in the air then moves from the

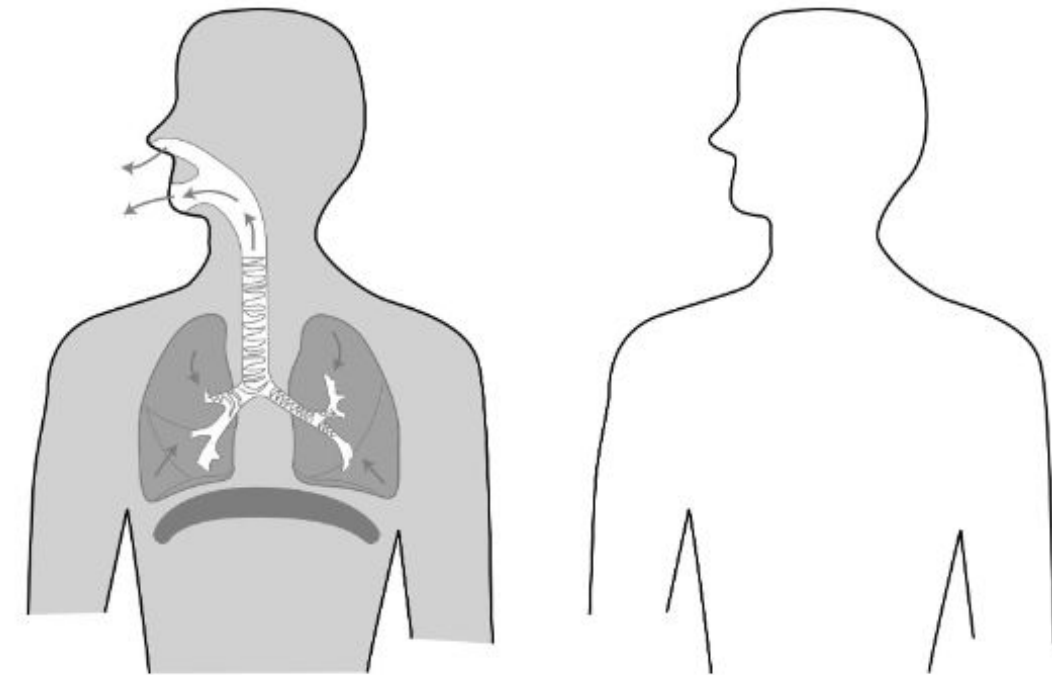
_____ into the _____. We breathe out

air that contains _____ gas. The _____

protect our respiratory system.

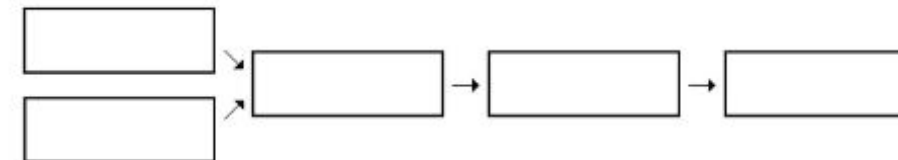
Practice

- 2 The drawing on the left shows the lungs when you breathe out. Make a drawing to show what happens to the lungs and diaphragm muscle when you breathe in. Add labels to your drawing to explain what it shows.



- 3 Complete the flow diagram using these words to show the path of oxygen when we breathe in.

lungs	nose	blood	mouth	windpipe
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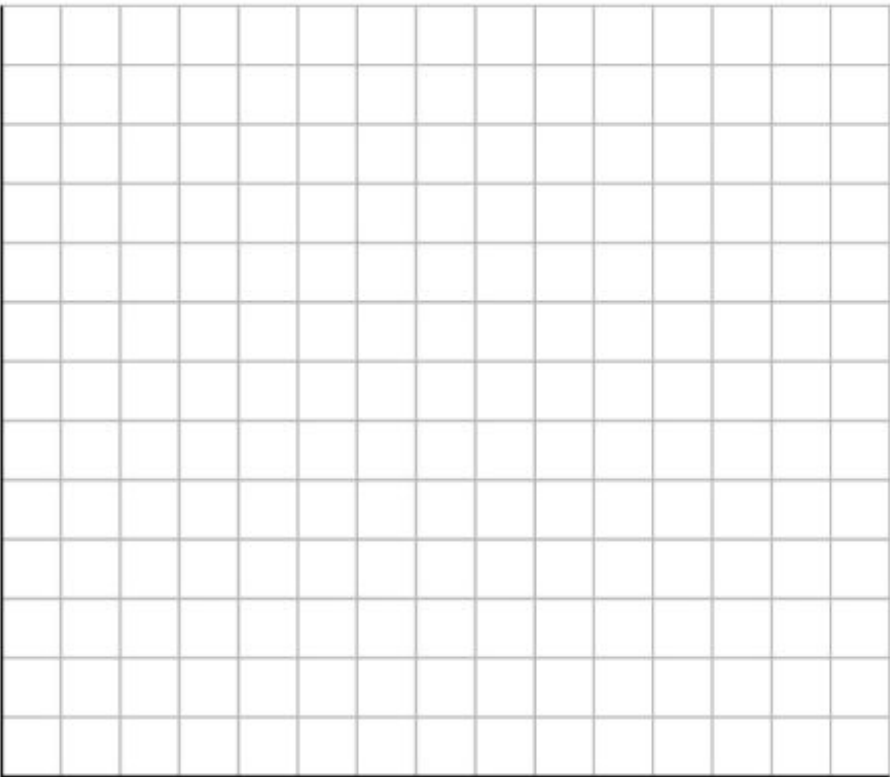


Challenge

4 Class 6 measured the pulse rate and breathing rate of 10 people after they had jogged on the spot for three minutes. Here are their results.

Person	Breathing rate in breaths per minute	Pulse rate in heartbeats per minute
1	30	90
2	50	120
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a Draw a scatter graph of the results. Remember to label the axes on your graph.



b Describe the pattern you observe in the results.

c i Identify any results that do not fit the pattern.

ii Suggest a reason for this.

- d By drawing a line of best fit onto the scatter graph, predict the pulse rate of a person whose breathing rate is 48 heartbeats per minute.

- e Suggest a conclusion that Class 6 can make from these results.

> 1.3 The reproductive system

Focus

- 1 Match each of the words in List 1 with their meanings in List 2. Draw a line to link each word to its meaning.

List 1	List 2
reproduction	the baby develops here
puberty	male sex cells are made here
ovum	female sex cells are made here
fertilisation	male sex cell
uterus	female sex cell
testis	making more individuals of the same kind of living thing
sperm	joining of a male sex cell and female sex cell
ovary	the age at which a person becomes able to reproduce

Practice

- 2 Draw a circle around the letter of the correct answer to each of these questions.
- a Which change in puberty happens to both boys and girls?
- A shoulders and chest get broader
B hips get wider
C the body grows more hair
- b Which change in puberty happens to boys only?
- A increase in height
B voice gets much deeper
C skin becomes more oily
- c Which one of the following is not part of the female reproductive system?
- A ovary
B testes
C uterus
- d Which one of the following is not part of the male reproductive system?
- A oviduct
B sperm duct
C penis
- e Which of the following happens during menstruation?
- A male and female sex cells join
B new eggs are formed
C the lining of the uterus pulls away

