

# Unit 1 Plants and humans as organisms

## 1.1 Labelling a diagram of a plant

This exercise relates to **1.1 Plant organs** from the Coursebook.

In this exercise, you practise labelling a diagram carefully.

This diagram shows a plant.

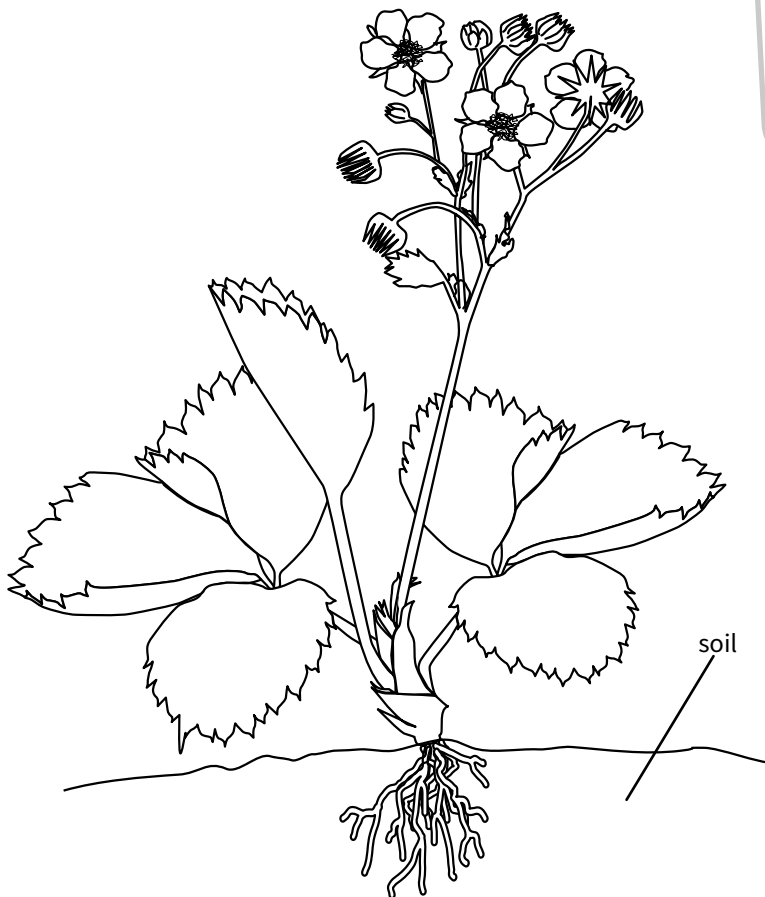
**1** Add these labels to the correct parts of the plant.

**roots**

**stem**

**leaf**

**flower**



### Remember

Use a ruler and pencil to draw your label lines.

Make sure the end of the label line touches the part you want to label.

Write the labels in the white space, not on the diagram.

Try to keep your writing horizontal.

## 1.2 Functions of human organs

This exercise relates to **1.2 Human organ systems** from the Coursebook.

In this exercise, you label some human organs with their functions. Follow the guidelines about labelling from exercise 1.1.

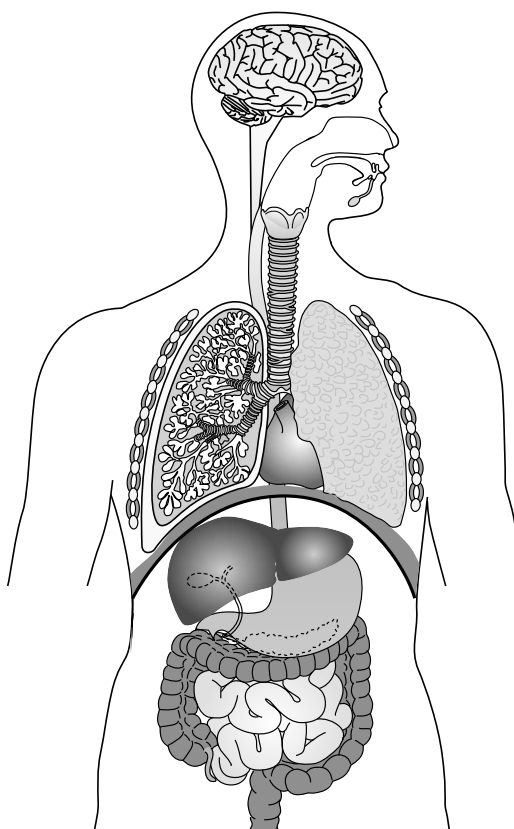
Here is a list of the **functions** of four of the organs that are shown in the diagram below.

- The ..... pumps blood around the body.
- The ..... coordinates actions of different parts of the body.
- The ..... helps to digest food.
- The ..... absorb oxygen from the air.

### Remember

The function of something is the job that it does.

- 1 Use the list of functions to label the diagram. Complete each label by adding the name of the organ.



- 2 Now add at least one more label of your own. Your label should name the organ and describe its function.

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1.3 The skeleton and forces

This exercise relates to 1.3 The human skeleton from the Coursebook.

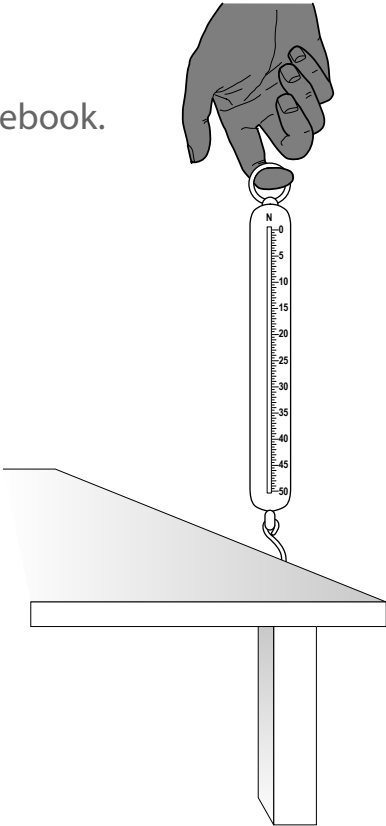
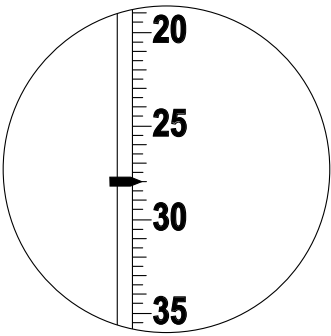
In this exercise, you practise reading a scale and filling in a results table.

Sam does an experiment to measure how much force he can produce with his fingers.

He hooks a forcemeter to the bench.

Then he pulls on the forcemeter with the first finger of his right hand.

Here is a close-up of the scale on the forcemeter.



- 1 Who reads the scale correctly?  
Tick the box under the correct reading.

**Anna**

2.8 newtons

☐

**Nor**

28 newtons

☐

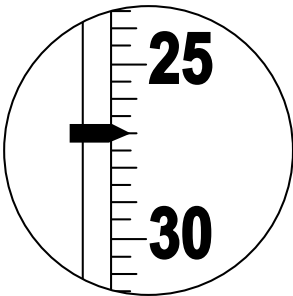
**Amal**

34 newtons

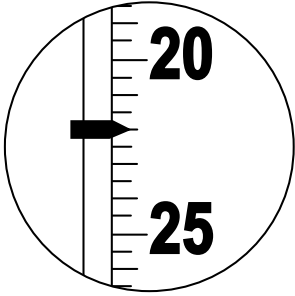
☐

Sam now pulls the forcemeter with the thumb of his right hand, and then with his other three fingers.

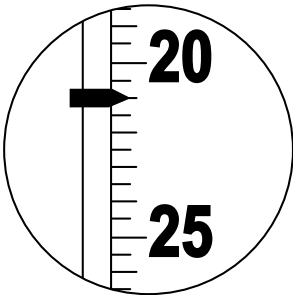
These pictures show the forcemeter scale for each.



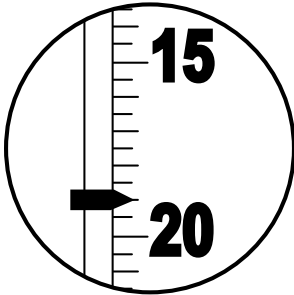
thumb



second finger



third finger



little finger

- 2 Write the readings in the correct spaces in Sam’s results table. (The reading for Sam’s first finger on his right hand is on the previous page.)

The results for his left hand are already completed.

	Force in N	
	Right hand	Left hand
thumb		25
first finger		25
second finger		19
third finger		16
little finger		17

Remember

N is the symbol for **newtons**.  
The unit, N, is in the heading of the table, so you do not need to write it again.

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1.4 Muscles experiment

This exercise relates to **1.5 Muscles** from the Coursebook.

In this exercise, you complete the headings and readings in a results chart. Then you think about making conclusions from a set of results.

Elsa wants to find out whether the muscles in her right hand or her left hand tire more quickly. Elsa and Anna do an experiment.

Elsa holds a clothes peg between the thumb and first finger of her right hand.

She uses the muscles in her thumb and finger to open and close the peg, as fast as she can.

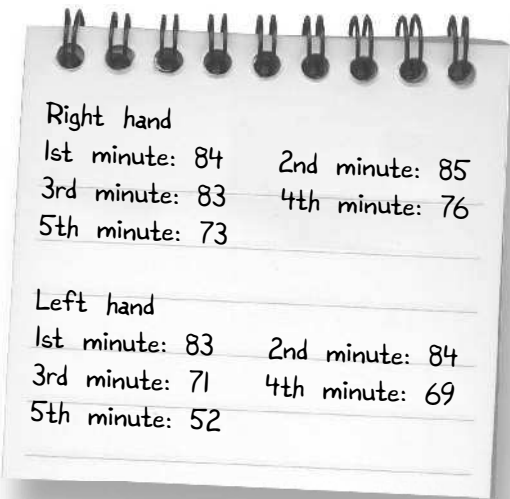
In the girls’ experiment, this is what they do:

- Elsa opens and closes the peg as many times as she can for five minutes.
- Anna uses the timer and counts the number of times Elsa does this in each minute.



Then they do it again, but this time Elsa holds the clothes peg in her left hand.

Here are the results that Anna writes down:



1 Complete the results table for Elsa’s and Anna’s experiment.

Time in .....	Number of times clothes peg was opened and closed	
	..... hand	..... hand
1		
2		

2 Elsa and Anna make some **conclusions** from their results.  
Tick the **one** conclusion that is correct.

A large sheet of lined paper, tilted slightly to the right, with horizontal ruling lines. It is intended for the student to write their conclusion.