



Cambridge Primary Sample Test

For use with curriculum published in September 2020

Science Paper 1

Stage 6

35 minutes

Name

No additional materials are needed.

INSTRUCTIONS

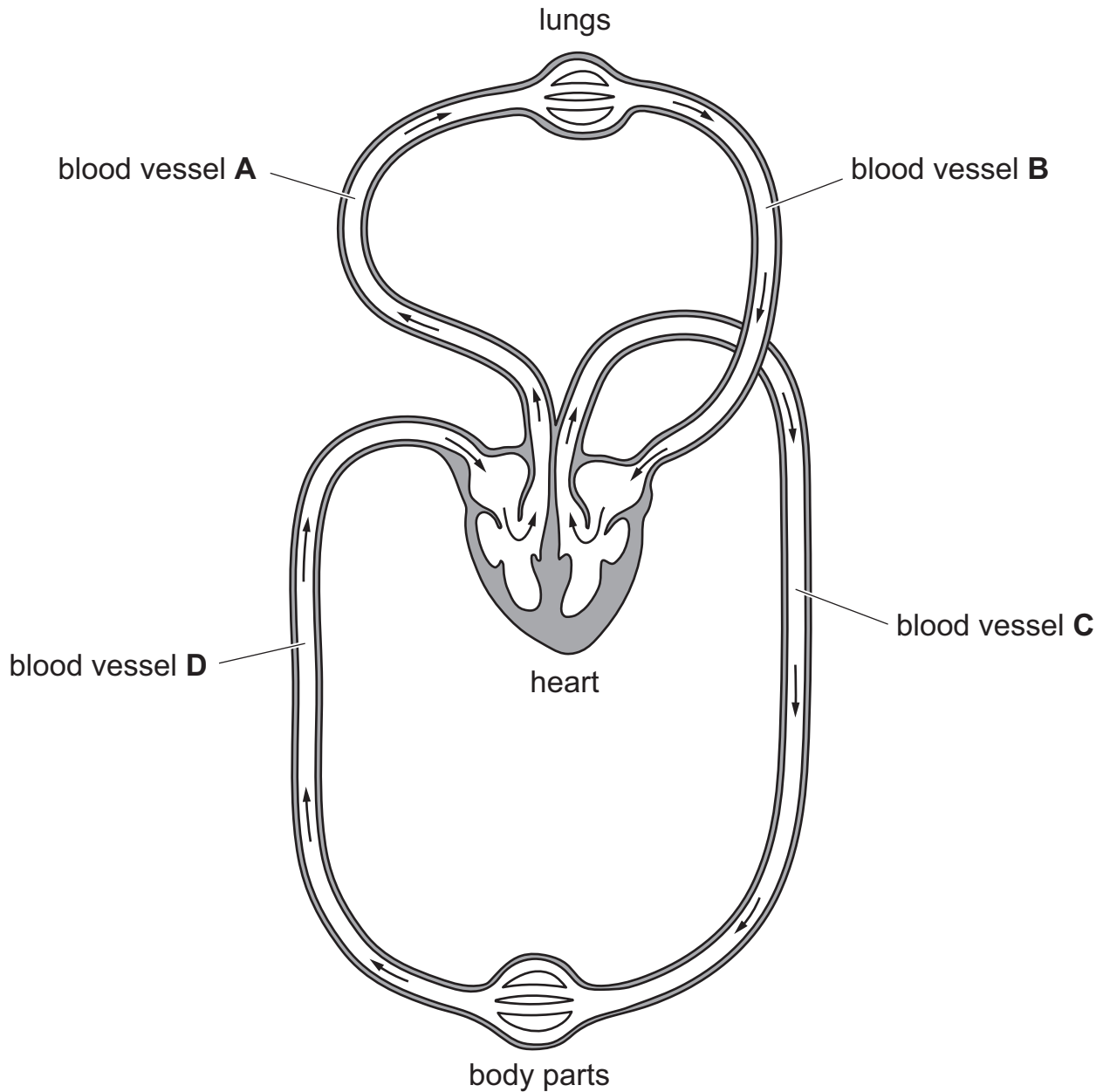
- Answer **all** questions.
- Write your answer to each question in the space provided.
- You should show all your working on the question paper.

INFORMATION

- The total mark for this paper is 40.
- The number of marks for each question or part question is shown in brackets [].

- 1 The diagram is a model of the human circulatory system.

The arrows show the direction of blood flow through the heart and blood vessels.



- (a) What is the function of the heart?

..... [1]

- (b) What is the name of the **type** of blood vessels labelled **A** and **C**?

..... [1]

(c) What is the name of the **type** of blood vessels labelled **B** and **D**?

..... [1]

(d) The blood circulatory system in humans is called a double circulatory system.

Use the arrows on the diagram to suggest why.

.....
.....
..... [1]

(e) Write down **one** function of the blood in the circulatory system.

..... [1]

2 Look at the table of properties of some substances.

substance	melting point in °C	boiling point in °C	electrical conductivity
bromine	−7	58	low
copper	1085	2562	high
iron	1540	2862	high
mercury	−39	357	high
oxygen	−218	−183	low
silver	961	2162	high

(a) Which change of state happens to oxygen when it boils?

..... [1]

(b) What is the meaning of the words **boiling point**?

.....
..... [1]

(c) Melting point, boiling point and electrical conductivity are all properties of a substance.

Write down one **other** property of a substance.

..... [1]

(d) Room temperature is 25 °C.

Bromine is a liquid at room temperature.

Complete the sentence to explain why.

Bromine has a melting point than room
temperature and a boiling point than room
temperature.

[1]

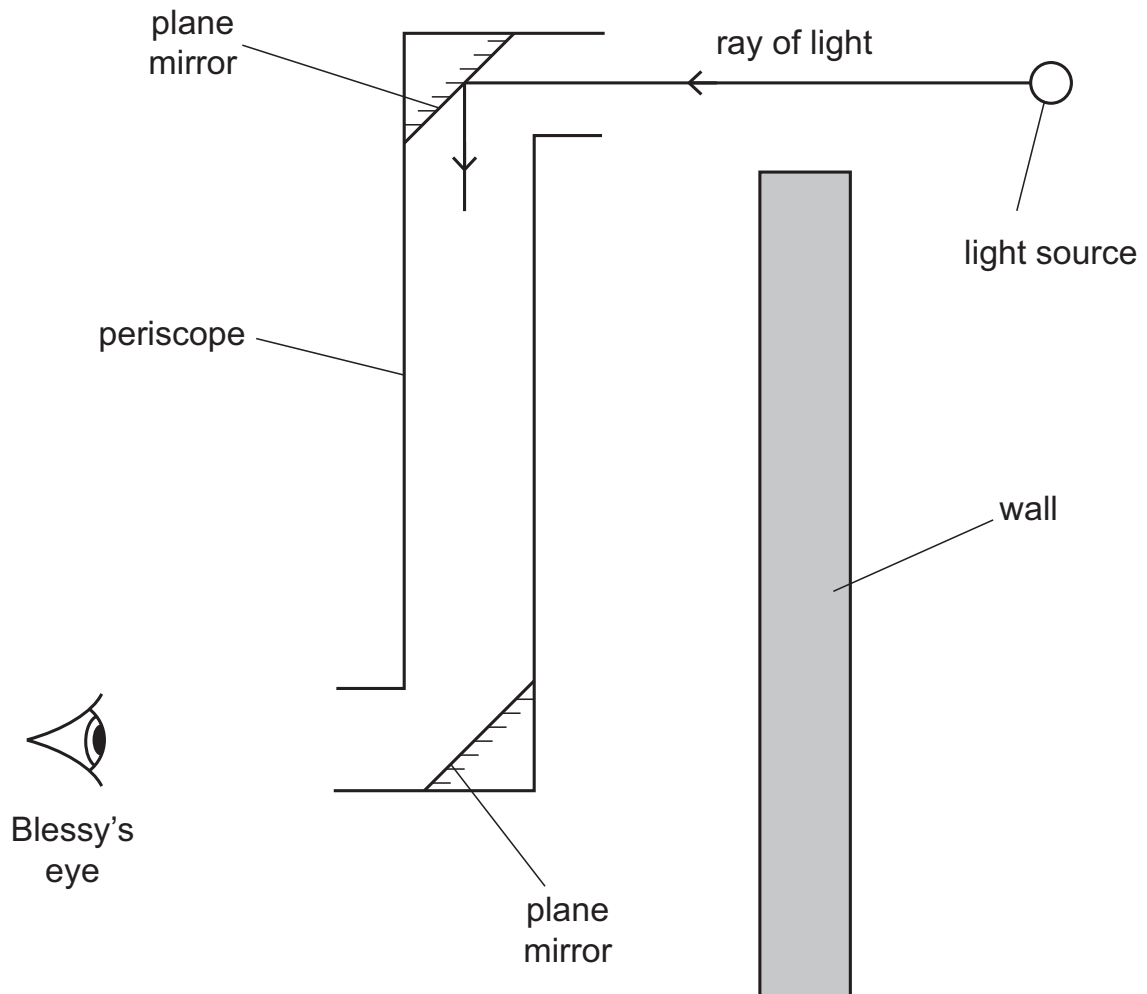
3 Blessy uses a periscope to look over a wall at a light source.

(a) Look at the diagram.

The periscope has two plane mirrors.

A ray of light enters the periscope and finally enters Blessy's eye.

Complete the path of the ray of light on the diagram until the ray of light reaches Blessy's eye.

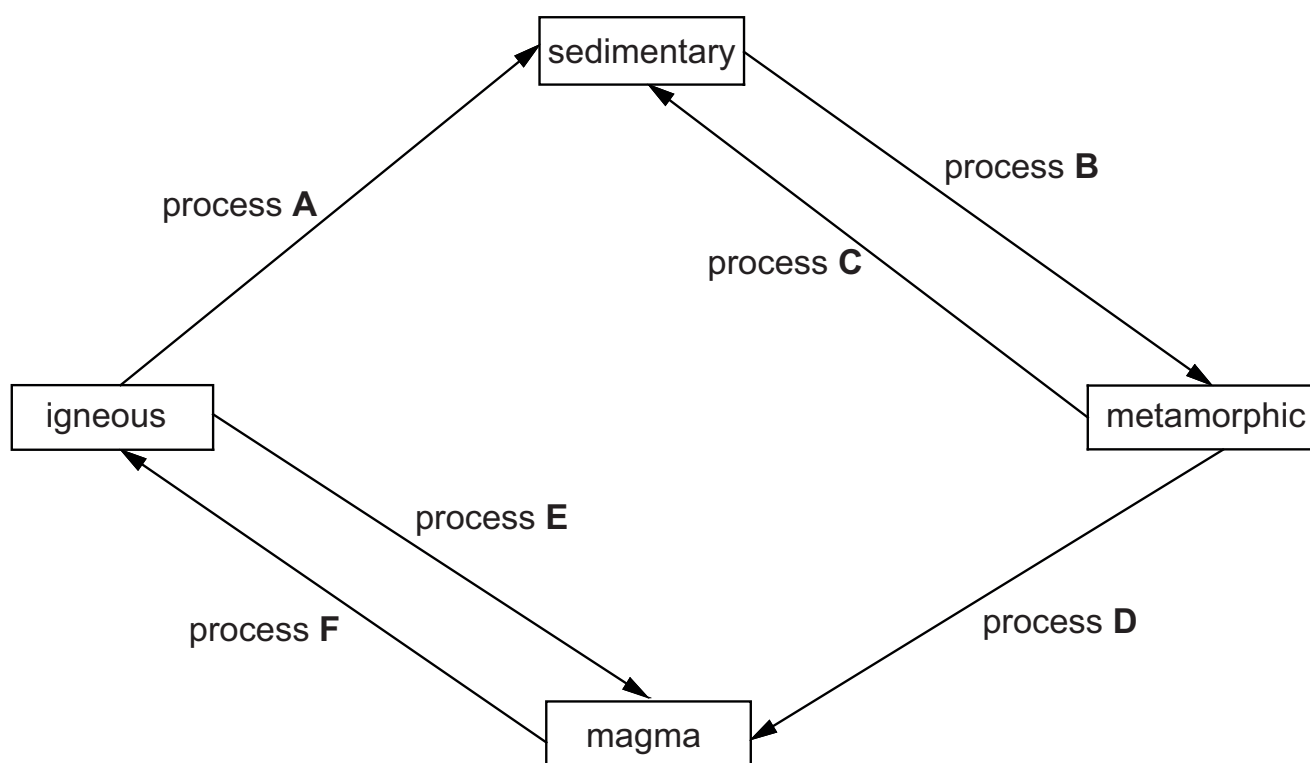


[3]

(b) Name the process that happens when the ray of light hits the plane mirrors.

..... [1]

4 The diagram shows a simple rock cycle.



Look at the table.

It shows descriptions of some of the processes in the rock cycle.

Complete the table.

process	description
A	erosion and sedimentation
B	heat and pressure
C
D
E
F

[4]

5 Priya and Rajiv are visiting this rainforest.



Priya and Rajiv are worried they may be bitten by an insect and get an infection.

(a) Describe **two** ways Priya and Rajiv can avoid being bitten by insects in the rainforest.

- 1
- 2

[2]

(b) Some diseases are caused by infection of bacteria.

Write down the name of two **other** types of organisms that may cause a disease by infection.

- 1
- 2

[2]

- 6** Yuri investigates how many sugar cubes dissolve in different temperatures of water.

In his first experiment Yuri:

- pours 100 cm^3 of water into a glass beaker
- measures the temperature of the water
- keeps adding sugar cubes to the water until no more sugar dissolves
- records the number of sugar cubes that dissolve.

He repeats the experiment four more times.

Each time he uses water at a different temperature.

- (a)** Write down a prediction for this investigation.

Use your knowledge and understanding of particles to explain your prediction.

prediction

.....

explanation

.....

.....

[2]

- (b)** Name a piece of equipment used to accurately measure 100 cm^3 of water.

..... [1]

- (c)** Name a piece of equipment used to measure the temperature of water.

..... [1]

- (d)** Explain why Yuri uses 100 cm^3 of water in each experiment.

.....

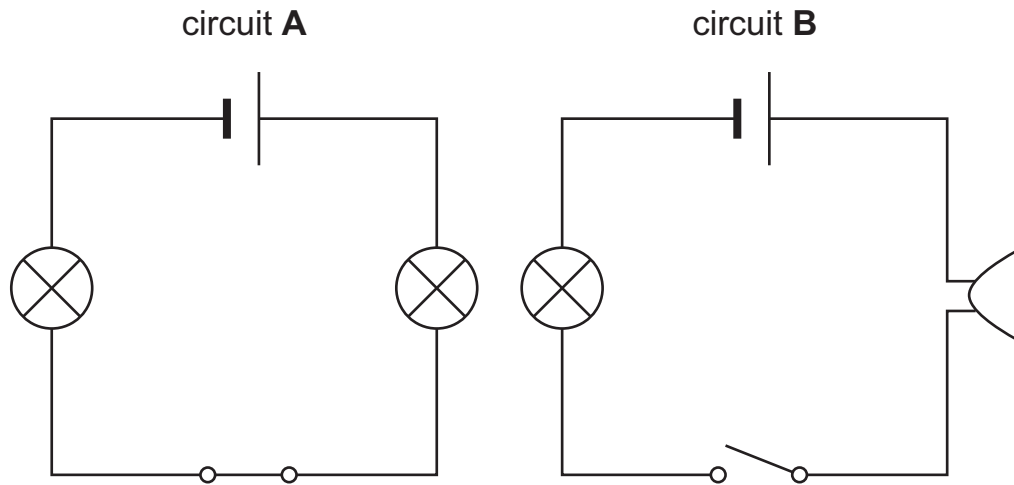
..... [1]

- (e)** Write down the dependent variable in this investigation.

..... [1]

7 Scientists use models to describe electrical circuits.

Look at these two electrical circuits.



Both circuits have a cell and wires.

(a) Describe two **other similarities** between the two circuits.

1

2

[2]

(b) Describe two **differences** between the two circuits.

1

2

[2]

8 Mia finds some data about the eight planets of the Solar System.

Look at the table of data.

planet	radius of the planet in km	distance of the planet from the Sun in millions of km	mean surface temperature of the planet in °C
A	2440	58	280
B	3389	228	−55
C	6052	108	460
D	6371	150	14
E	24622	4495	−218
F	25362	2871	−224
G	58232	1434	−178
H	69911	779	−145

(a) Which **letter** shows the planet with the coldest mean surface temperature?

..... [1]

(b) What is the **name** of the planet that is the furthest away from the Sun?

..... [1]

(c) Which **letter** shows data for Mercury?

..... [1]

(d) Mia thinks that as the radius of a planet gets bigger, the planet is further away from the Sun.

Is she correct?

Use data from the table to explain your answer.

.....

 [1]

9 Look at the table of data.

It shows the mass and weight of the **same** object in different parts of the solar system.

part of the solar system	mass of object in	weight of object in
Earth	10.2	100
Mercury	10.2	38
Pluto	10.2	6
the Moon	10.2	17
an asteroid	1

(a) Complete the table by writing the mass of the object on an asteroid.

[1]

(b) The unit for mass is missing from the table.

What is the unit for mass?

..... [1]

(c) The unit for weight is missing from the table.

What is the unit for weight?

..... [1]

(d) Describe the difference between mass and weight.

.....

 [1]

(e) Explain why the weight of the object is smaller on the Moon than on Earth.

.....
 [1]

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