



# Cambridge Primary Sample Test

## For use with curriculum published in September 2020

### Science Paper 2

#### Stage 4

30 minutes

Name .....

No additional materials are needed.

#### INSTRUCTIONS

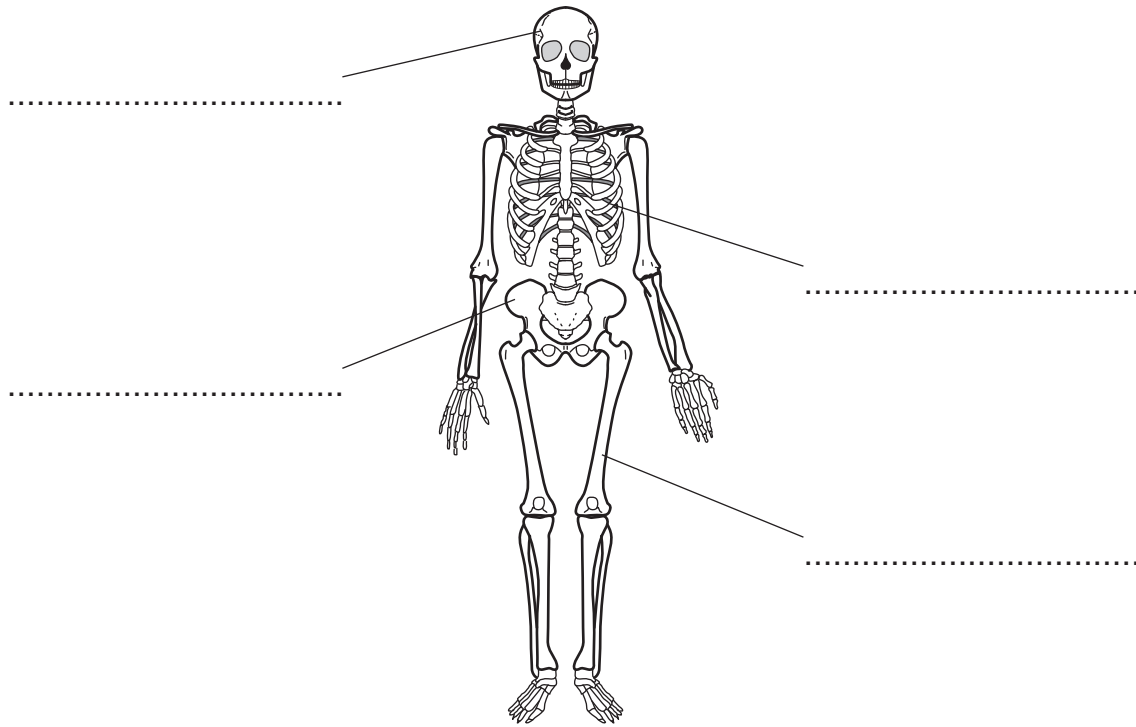
- Answer **all** questions.
- Write your answer to each question in the space provided.
- You should show all your working on the question paper.

#### INFORMATION

- The total mark for this paper is 30.
- The number of marks for each question or part question is shown in brackets [ ].

1 The human body has a skeleton.

(a) Label the bones of the skeleton.



[2]

(b) What is attached to the arm bone to make it move?

Circle the correct answer.

**exoskeleton**

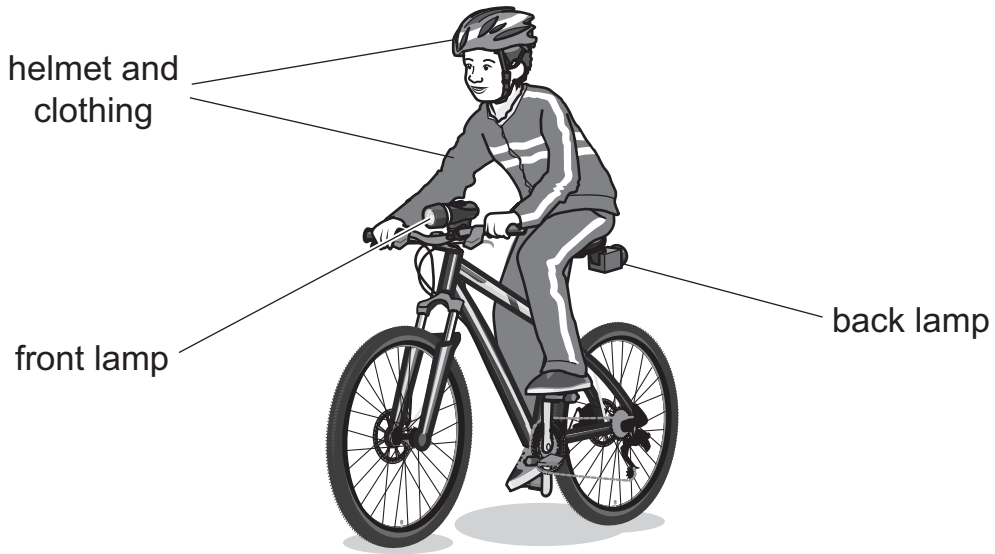
**pair of hands**

**pairs of muscles**

**skin**

[1]

2 Chen rides his bicycle at night.



A person driving a car at night can see the front lamp, helmet and clothing.

(a) The front lamp is a source of light.

Complete the sentence.

Light from the lamp travels in ..... lines to the person. [1]

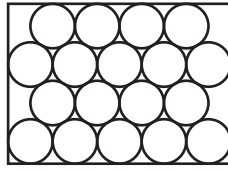
(b) The helmet and clothing are **not** sources of light.

The person in the car sees these clearly.

Explain why.

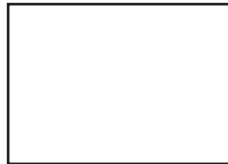
.....  
..... [1]

- 3 Safia draws a model to show the particles in a solid.



- (a) This solid melts.

Draw a model to show the particles in this liquid.



[1]

- (b) Which statement about particles is correct?

Circle the correct answer.

particles do not move

particles move in a solid and in a liquid

particles only move in a liquid

particles only move in a solid

[1]

- (c) Solids and liquids have properties.

Tick (✓) the correct box to show if each statement is true or false.

statement	true	false
solids have a fixed shape	<input type="checkbox"/>	<input type="checkbox"/>
liquids have a fixed shape	<input type="checkbox"/>	<input type="checkbox"/>
solids can be compressed	<input type="checkbox"/>	<input type="checkbox"/>
liquids can be compressed	<input type="checkbox"/>	<input type="checkbox"/>

[2]

(d) Some solids behave like liquids.



Describe how the sand is behaving like a liquid.

.....

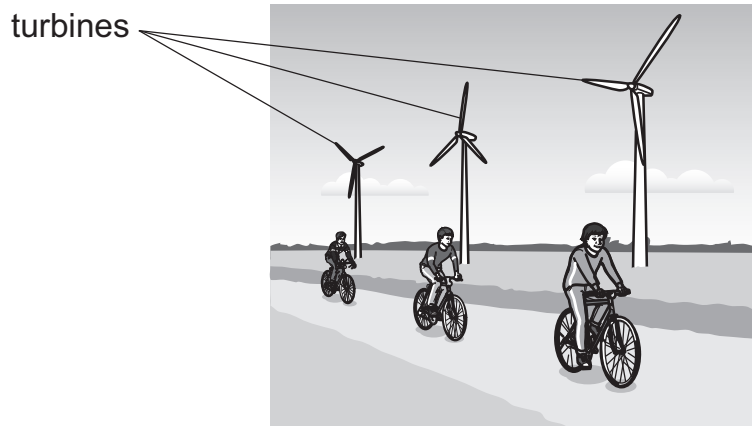
Explain why sand can behave like a liquid.

.....

.....

[2]

4 Gabriella has a picture.



(a) The children are singing and getting hot.

What happens to the sound energy and heat energy?

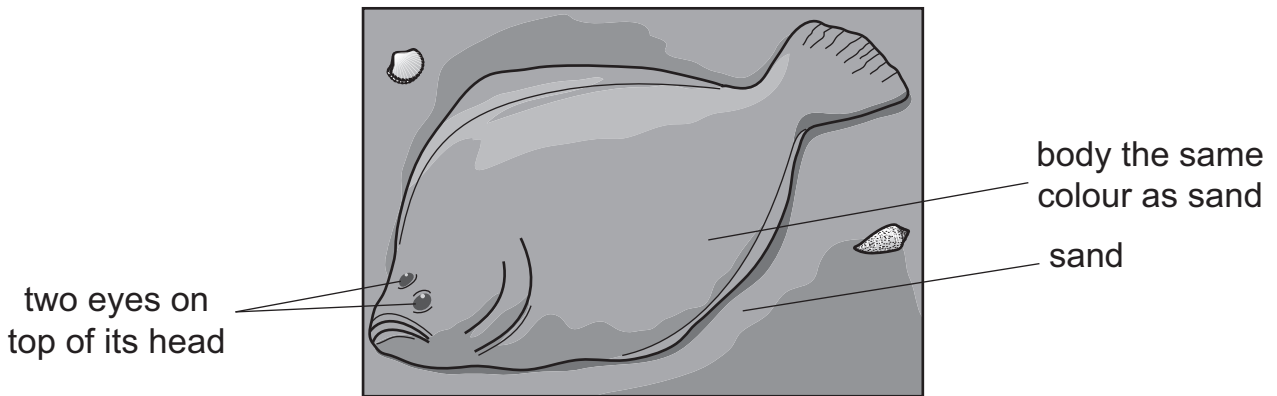
..... [1]

(b) The turbines are moving.

Where do the turbines get their energy from?

..... [1]

5 The flatfish is suited to the environment in which it is found.



Complete the sentences.

The flatfish has a body the same colour as sand because .....

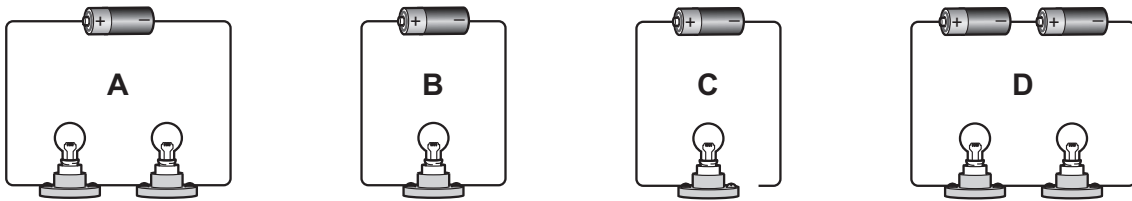
.....

The flatfish has two eyes on top of its head because it can see .....

.....

[2]

6 Hassan has **four** electrical circuits.



(a) One of the electrical circuits does **not** work.

Which electrical circuit does **not** work?

Circle the correct answer.

**A**                      **B**                      **C**                      **D**

[1]

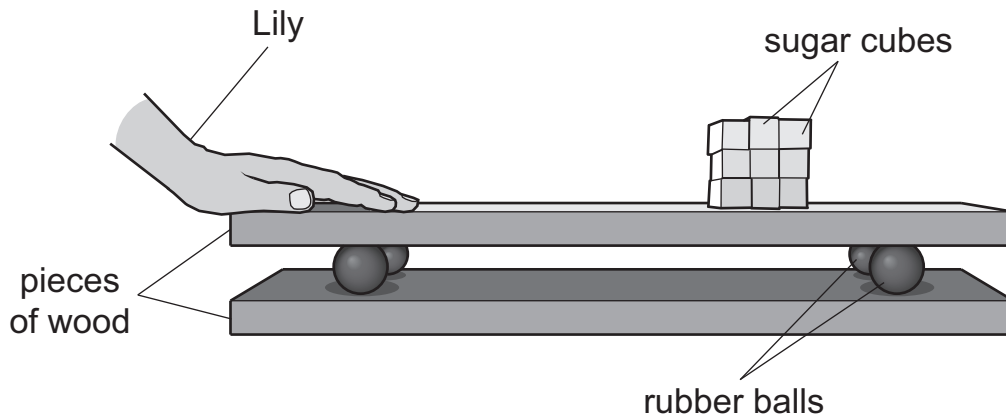
(b) Why are the wires in the electrical circuit made of the metal copper?

..... [1]

7 Lily investigates earthquakes.

She uses:

- sugar cubes for a house
- two pieces of wood for parts of the Earth's crust
- rubber balls to allow movement.



Lily pushes the top piece of wood.

What happens?

Tick (✓) **all** the correct boxes.

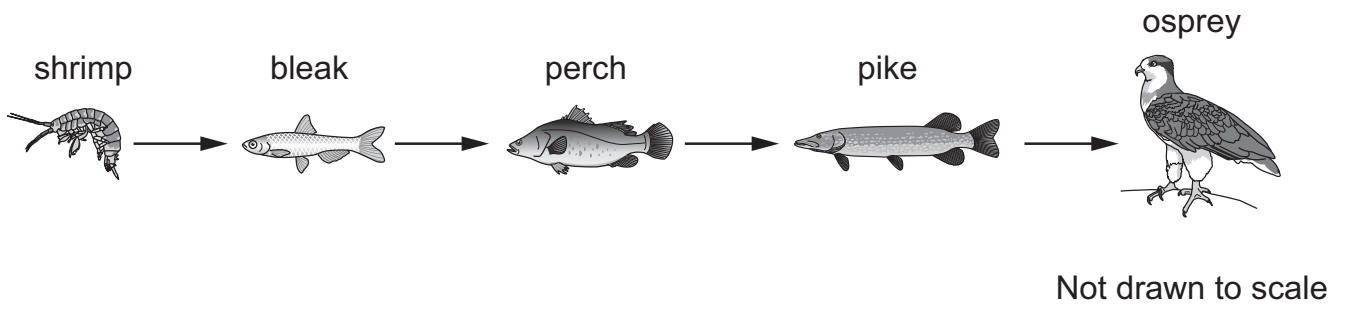
the rubber balls move

the sugar cubes move

the top piece of wood moves

[1]

8 Food chains are made of different living organisms.



(a) What type of living organism is **missing** from the start of this food chain?

..... [1]

(b) What type of organism is the perch?

Circle the correct answer.

**carnivore and herbivore**

**herbivore and predator**

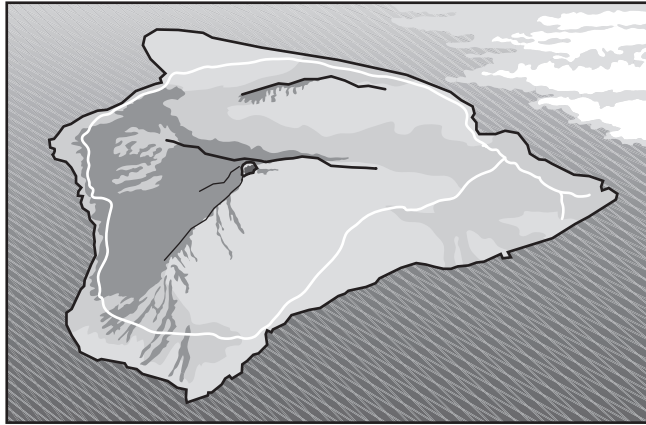
**herbivore and prey**

**predator and prey**

[1]



9 The largest active volcano is Mauna Loa in Hawaii.



(a) Draw the letter **V** on the volcano on the map.

[1]

(b) Describe what causes volcanoes.

Circle the correct answer.

**a break between the land and sea**

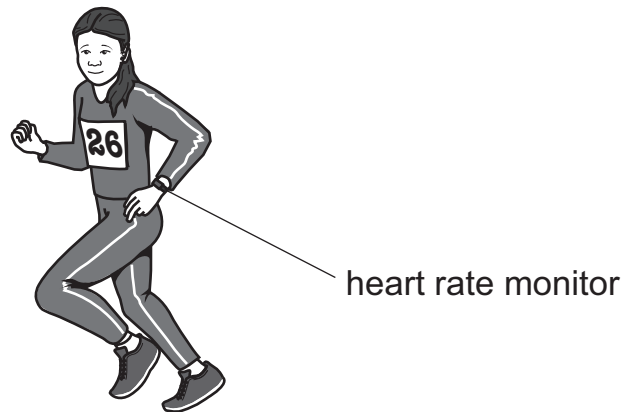
**a break in the Earth's crust**

**a break in the Earth's core**

**a break in the Earth's mantle**

[1]

10 Angelique investigates exercise.



(a) She measures her heart rate using a heart rate monitor.

She runs for five minutes.

What equipment does she need to measure the five minutes?

Circle the correct answer.

**measuring tape**

**ruler**

**stop-watch**

**thermometer**

[1]

(b) Angelique writes down the measurements.

I am running for 5 minutes.  
 Before I started running my heart rate was 50 bpm  
 My highest heart rate is 100, this happens at 3, 4  
 and 5 minutes.  
 After 1 minute my heart rate is 60 and after  
 2 minutes it is 80.

Complete the results table using these measurements.

..... .....	<b>heart rate in bpm</b>
0	.....
1	.....
2	.....
3	.....
4	.....
5	.....

[2]

(c) Complete the conclusion.

As the length of time Angelique exercises increases her heart rate  
 ..... and then stays the same.

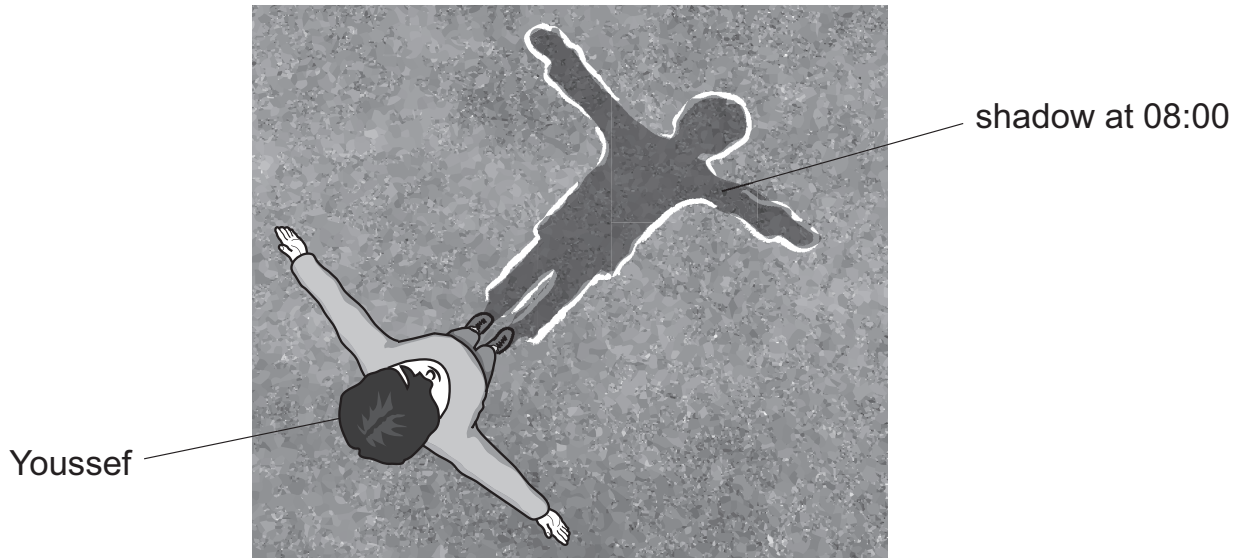
This is because her body needs more .....

[1]

11 Youssef stands outside.

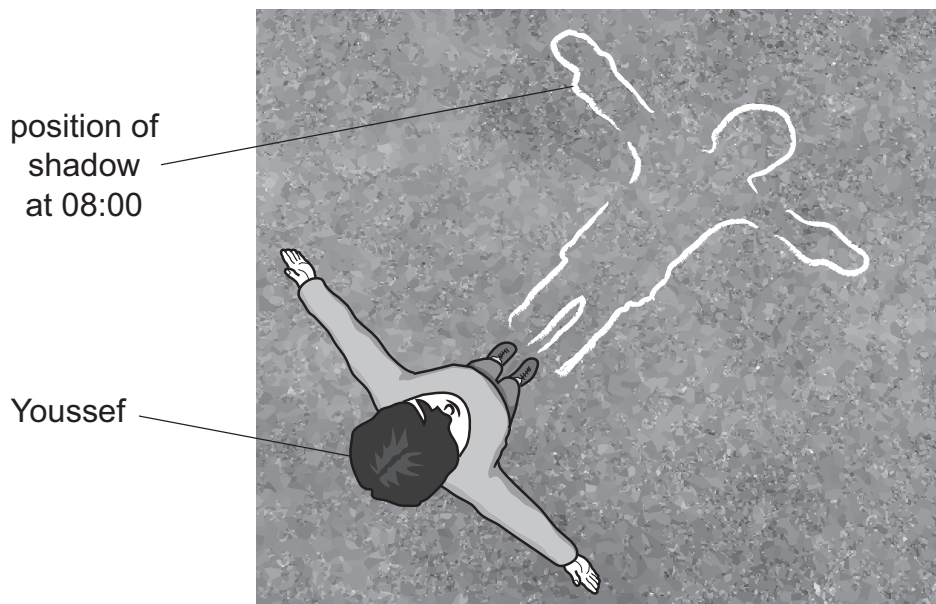
It is morning and the time is 08:00

Hassan draws around the shadow Youssef makes.



Youssef goes outside again at 11:00

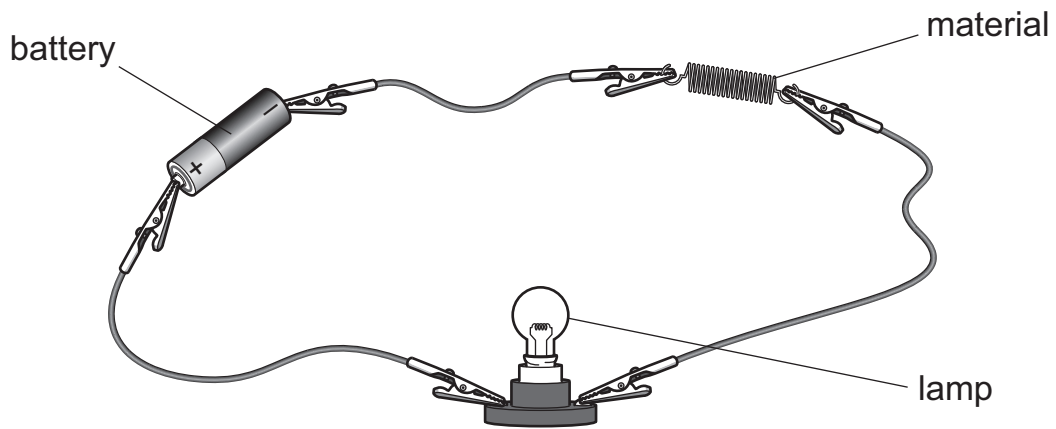
Draw the outline of the shadow Youssef makes now.



[2]

12 Mia investigates different materials.

She adds different materials to an electrical circuit.



(a) Mia wants to find out if the material is an electrical insulator.

What question does she ask to find out if this is true?

..... [1]

(b) Mia wants to be **safe** during the investigation.

Write down **one** thing she does to be safe.

..... [1]

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