

- 1 Oliver eats food containing bacteria.

This gives him food poisoning and makes him feel ill.



- (a) Which statements describe ways to stop Oliver getting food poisoning again?

Tick (✓) **two** correct boxes.

always drink water with food

☐

do **not** eat vegetables

☐

eat food that is **not** cooked

☐

spray insect repellent on food

☐

use clean knives to cut food

☐

wash hands before eating food

☐

[2]

(b) What does Oliver have in his stomach that kills bacteria?

..... [1]

(c) Bacteria cause disease.

Write down **two other** types of living things that cause disease.

1

2

[2]

- 2 (a) Blessy measures 60 cm^3 of water.

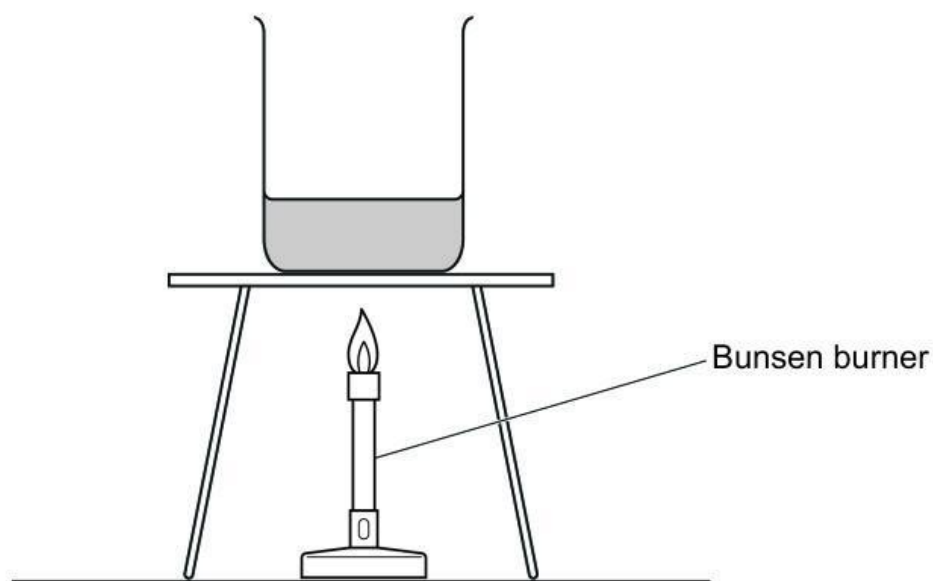
Name the equipment Blessy uses to accurately measure 60 cm^3 of water.

..... [1]

- (b) Blessy pours the water into a beaker.

She heats the water in the beaker.

Look at the diagram Blessy uses to heat the water.

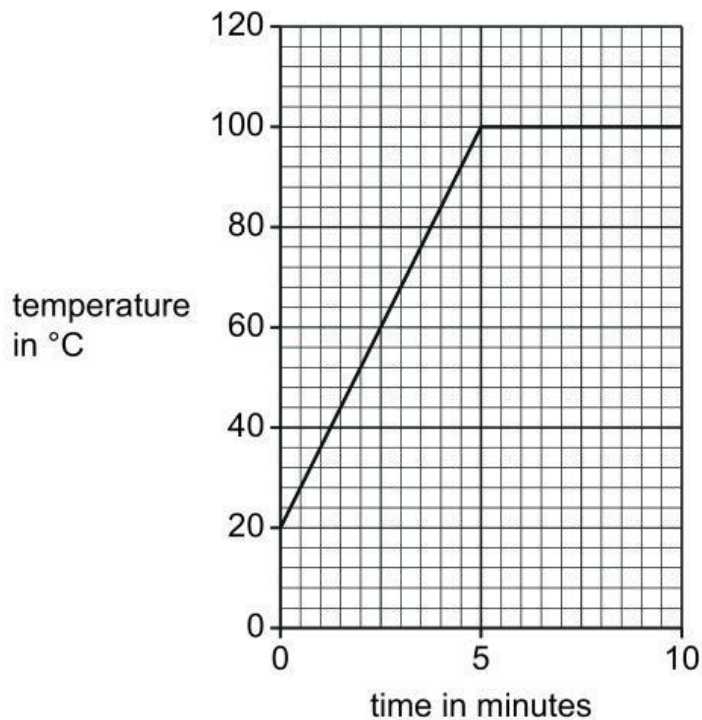


Write down **one** safety risk for this experiment.

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

(c) Blessy measures the temperature of the water for 10 minutes.

Look at the graph of her results.



The water begins to change state at 5 minutes.

What is the temperature of the water at 5 minutes?

..... °C [1]

(d) Complete the sentence using **one** word from the list.

particle

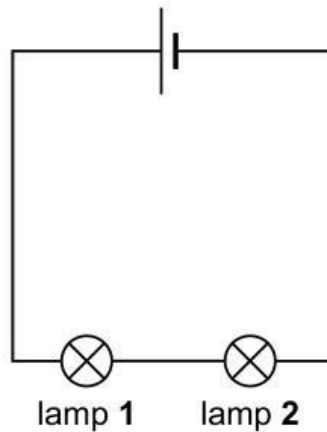
product

property

reaction

The temperature at which water changes state is a
of water. [1]

3 Aiko makes an electrical circuit.



(a) Tick (✓) the correct statement that describes this circuit.

a parallel circuit with lamp 1 and lamp 2 of the same brightness

☐

a parallel circuit with lamp 1 brighter than lamp 2

☐

a series circuit with lamp 1 and lamp 2 of the same brightness

☐

a series circuit with lamp 1 brighter than lamp 2

☐

[1]

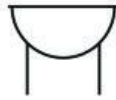
(b) Aiko uses a switch to turn the lamps in her electrical circuit on and off.

Complete the table.

type of switch	symbol	lamps on or off
closed		
open		

[2]

(c) Look at the symbol for a different component.



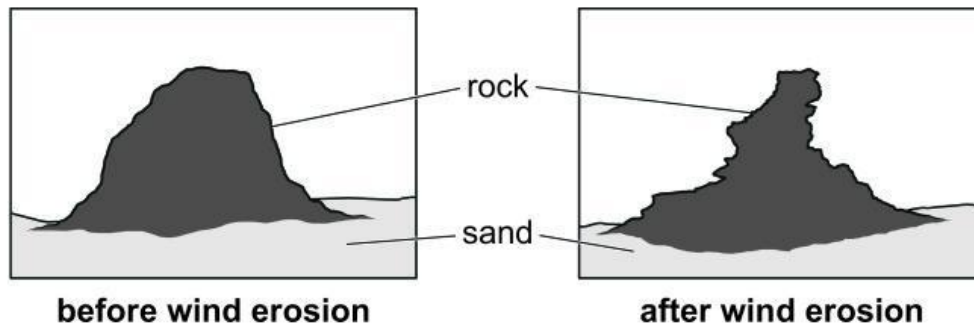
Describe what happens when this component is added to a complete electrical circuit.

..... [1]

4 Erosion happens in the rock cycle.

(a) One type of erosion is wind erosion.

Look at the diagrams of a large rock in a desert.



Explain why the **rock** looks different after wind erosion.

In your answer write about what happens to:

- the sand on the ground around the rock
- the rock.

.....

.....

.....

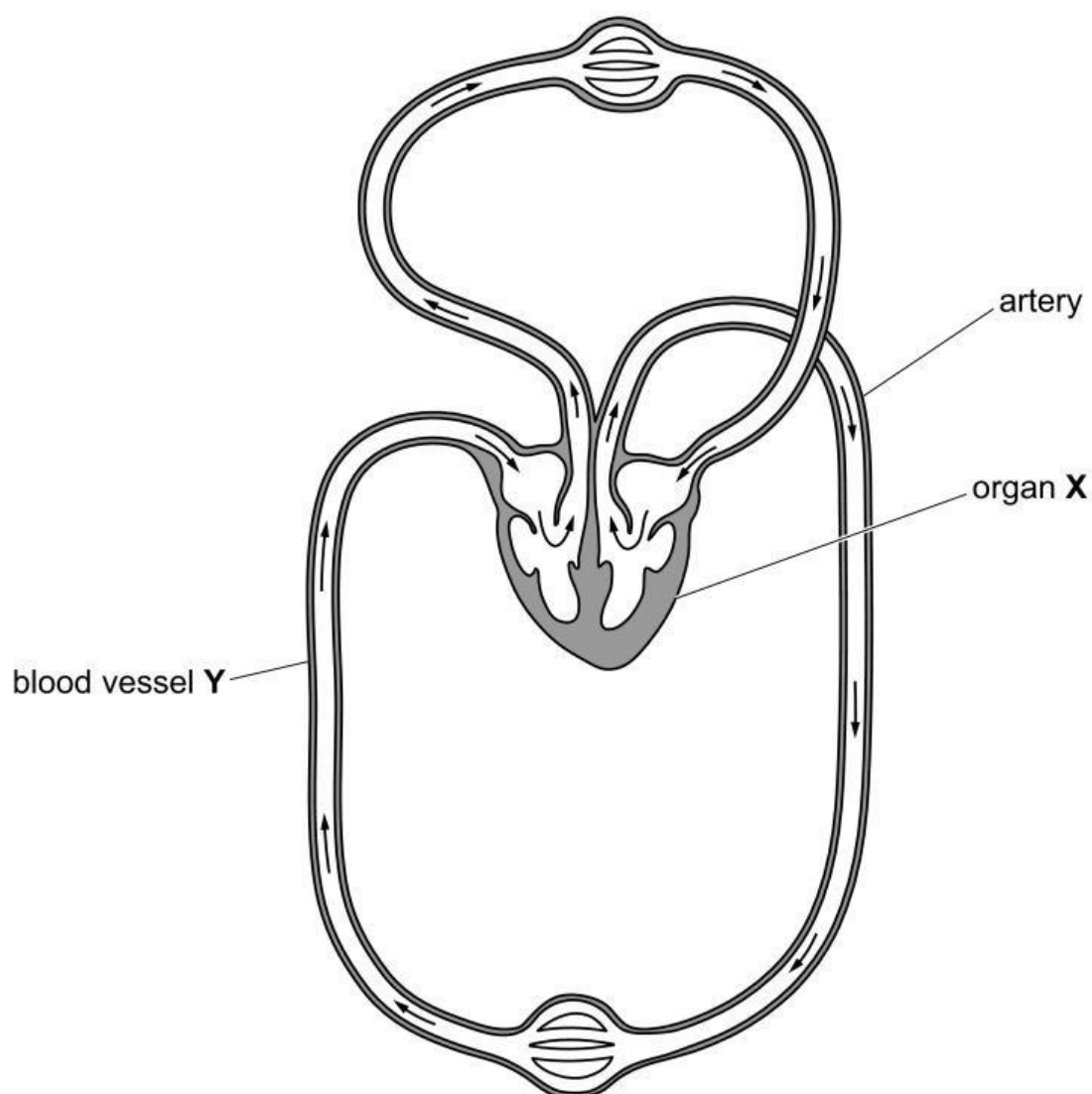
..... [2]

(b) Another type of erosion is water erosion.

Write down **one place** where water erosion happens.

..... [1]

5 The diagram shows part of an organ system in the human body.



(a) Complete the sentences.

This organ system is the system.

The function of the organ labelled X is to

.....

[2]

(b) An artery is one type of blood vessel.

Name the type of blood vessel labelled Y.

.....

[1]

- 6 Carlos investigates the electrical conductivity of 5 different metals.

The table shows his results.

metal	electrical conductivity in units
aluminium	35
calcium	30
gold	11
iron	40
zinc	17

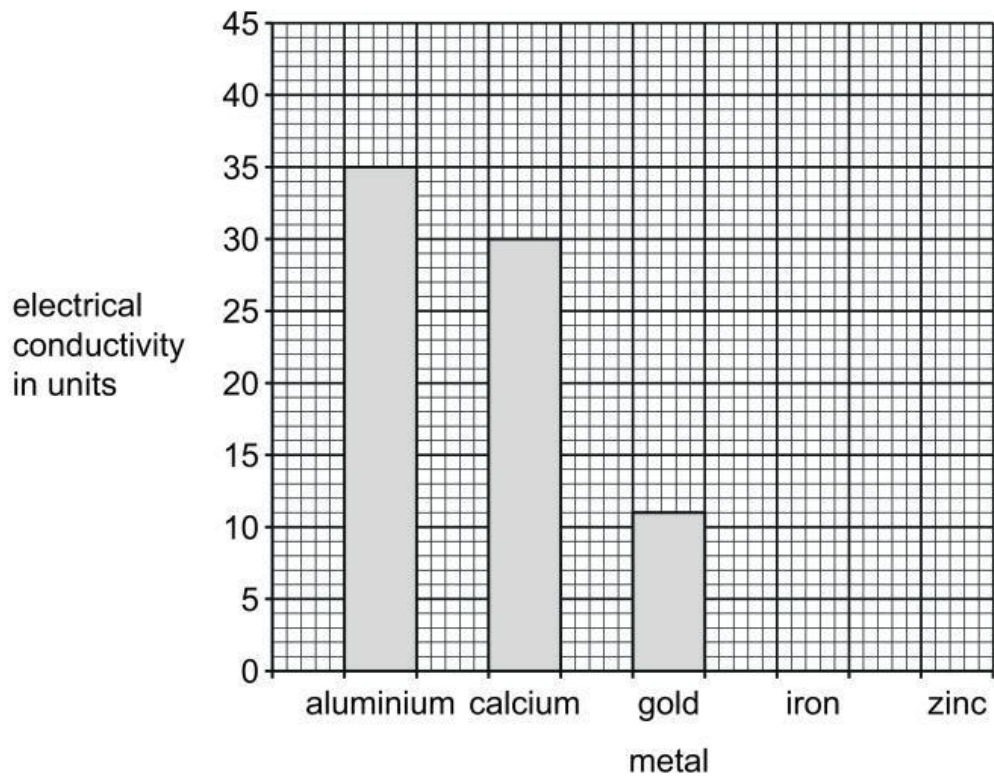
Metals with high values for electrical conductivity are better electrical conductors.

- (a) Which metal is the best electrical conductor?

..... [1]

(b) Carlos starts to draw a bar chart of his results.

Complete the bar chart using his results.



[1]

(c) Carlos researches the **thermal** conductivity of the different metals.

Suggest what the values for **thermal** conductivity of the different metals tells Carlos.

.....
 [1]

7 Safia sees a lamp when she looks directly at the lamp.

(a) Complete the ray diagram to show how Safia sees the lamp when she looks at a **computer screen**.



[1]

(b) Explain why Safia sees the lamp when she looks at a computer screen.

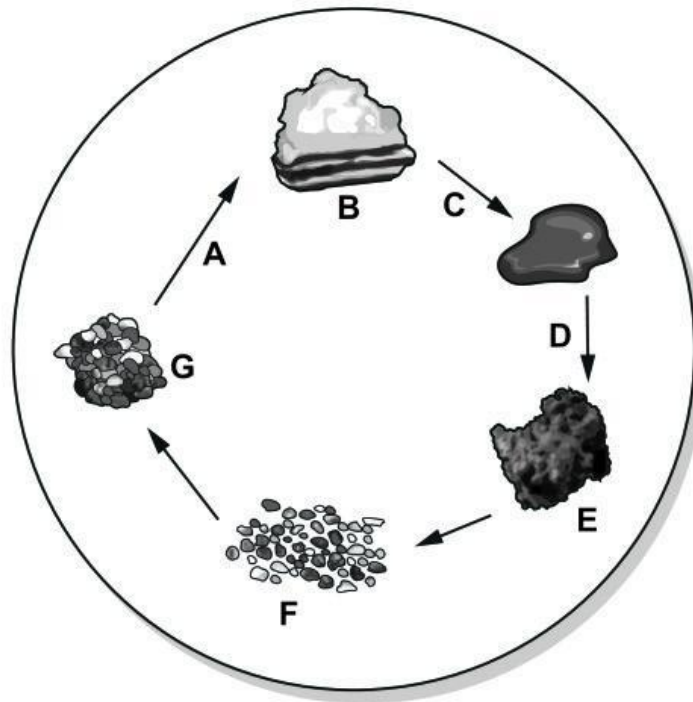
.....

.....

..... [2]

8 Yuri makes a model of the rock cycle.

He uses chocolate in his model.



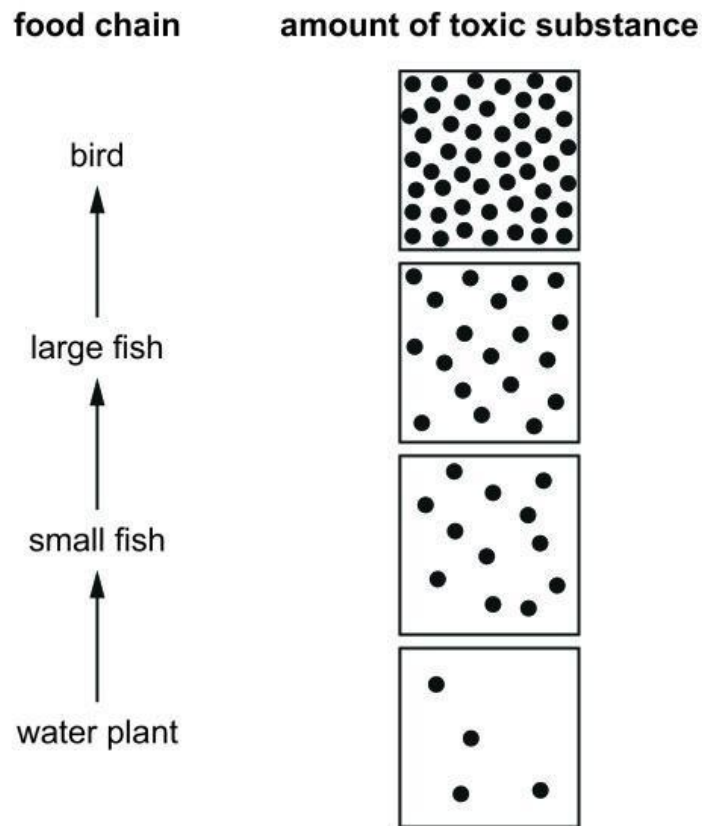
Complete the names of the **three** different types of rock in the table.

letter	description
A	the chocolate is heated and squashed together
B	 rock
C	the chocolate is melted
D	the chocolate is cooled
E	 rock
F	small pieces of chocolate model sediments
G	 rock

[2]

- 9 Lily researches the effect of toxic substances on living things.

She finds this diagram on the internet.



- (a) The dots (•) show the amount of toxic substance in each living thing in the food chain.

Complete these sentences.

The amount of toxic substance in the water plant is dots.

The amount of toxic substance in the small fish is dots.

The small fish contain times more of the toxic substance than the water plant.

[2]

(b) Only the water plant takes in the toxic substance directly from the water.

Look at the food chain.

Suggest how the toxic substance gets into the bird.

.....

.....

..... [1]

10 Tick (✓) **all** the boxes that are correct characteristics of gases.

Gases are compressible.

☐

Gases expand to fill a container.

☐

Gases have a fixed shape.

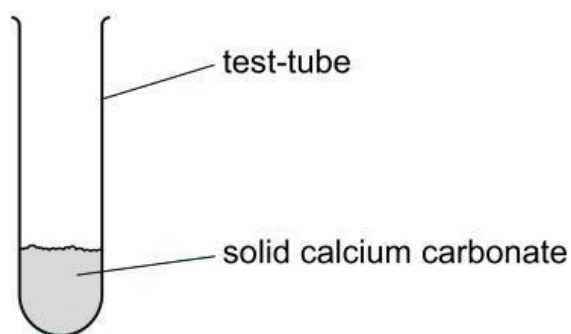
☐

Gases have a fixed volume.

☐

[2]

11 Mia puts some solid calcium carbonate in a test-tube.



She records the mass of the test-tube and its contents.

Mia heats the calcium carbonate in the test-tube.

Solid calcium oxide and carbon dioxide are made.

(a) Tick (✓) the reactant in this reaction.

calcium carbonate

☐

carbon dioxide

☐

calcium oxide

☐

[1]