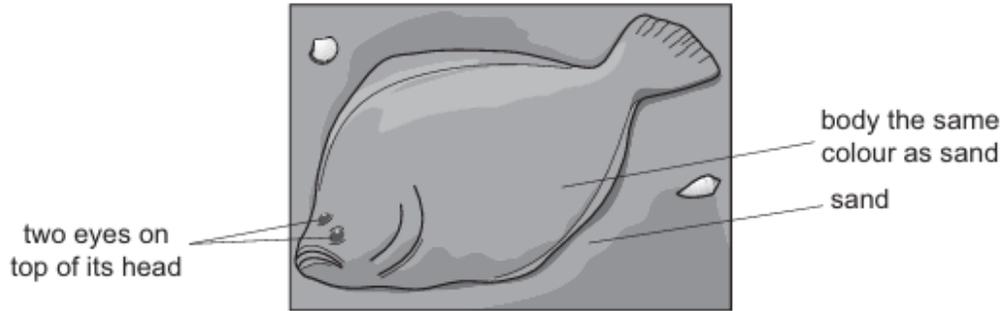


5 The flatfish is suited to the environment in which it is found.



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]

8 Look at the picture of a tree next to the water.

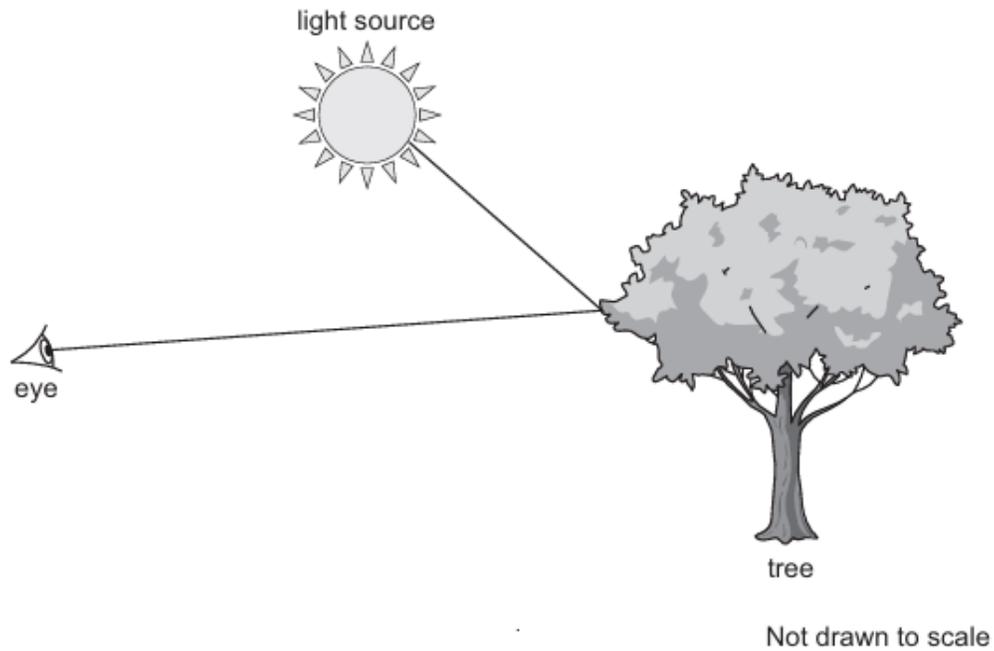


Write down the word that is used to describe the image of the tree in the water.

.....

[1]

- 1 The diagram shows how we see objects that are **not** light sources.



- (a) Circle the name of this type of diagram.

energy

light

line

ray

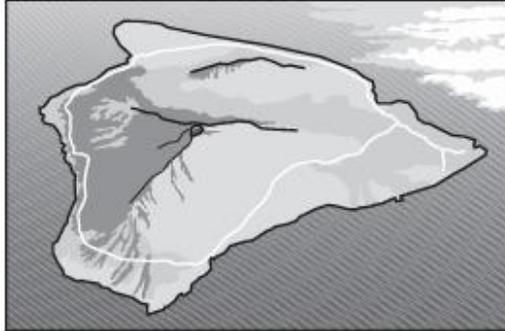
[1]

- (b) Draw **two** arrows on the diagram to show the direction the light travels. [1]

- (c) Describe what happens to the light when it hits the surface of the tree.

..... [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]

3 Mike investigates how animals keep warm.

He uses cloth to represent the fur of an animal.

Mike:

- puts a layer of cloth around a beaker
- adds 100 cm³ of hot water to the beaker
- measures the temperature of the water
- leaves the beaker for 5 minutes
- measures the temperature again.

Mike repeats his method four times.

Each time he changes the number of layers of cloth around the beaker.

(a) Write down **one** way Mike makes his investigation a fair test.

..... [1]

(b) Here are his results.

number of layers of cloth around beaker	temperature of water at start in °C	temperature of water after 5 minutes in °C	temperature change of water in °C
1	80	58	22
2	81	65	16
3	80	68	12
4	82	72	10
5	80	73

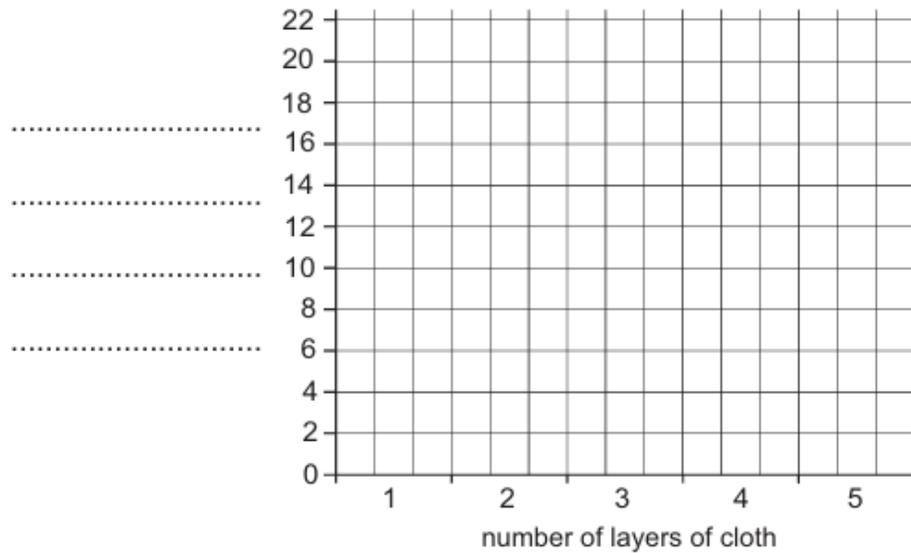
Calculate the temperature change of the water when Mike uses 5 layers of cloth.

Write your answer in the table.

[1]

(c) Mike starts to draw a bar chart of his results.

Complete his bar chart to show the temperature change of the water for different numbers of layers of cloth.



[2]

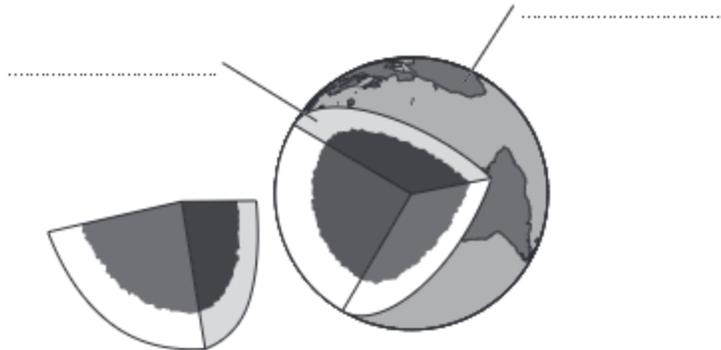
(d) Mike makes this statement.

'Animals that are suited to live in colder habitats have thicker fur to keep them warm.'

Explain how the results in the table support this statement.

.....
 [1]

10 Mia makes a model of the structure of the Earth using a polystyrene ball.



(a) Complete the labels on the model of the Earth. [2]

(b) The centre of the model of the Earth has not been labelled.

Write down the name of the centre of the Earth.

[1]

(c) Describe one way this is a good model to show the structure of the Earth.

[1]

(d) Describe one way this is not a good model to show the structure of the Earth.

[1]

(c) Mike sees this bird flying near the water.



Use the key to identify this bird.

..... [1]

(d) Mike also sees this bird.



The bird has a beak suited to help it feed in the habitat where it lives.

Tick (✓) one box that describes how the bird feeds.

Use the picture to help you.

uses its beak to pick up seeds from the ground

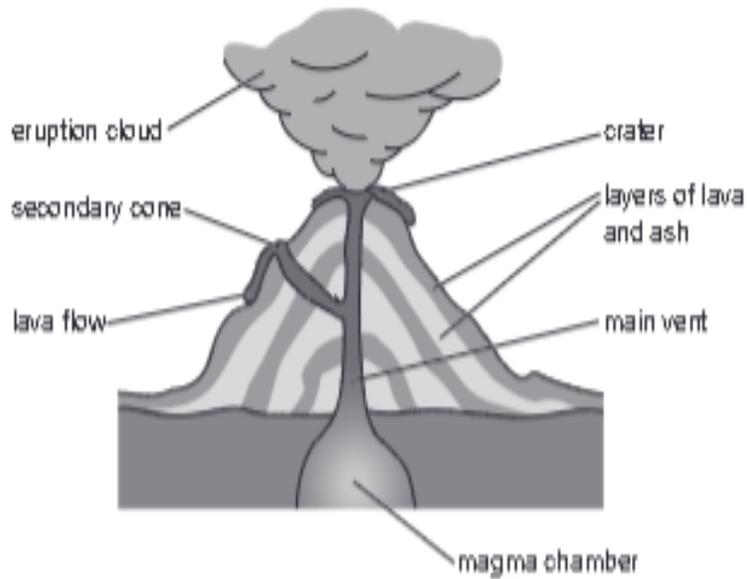
uses its beak to pull insects from the mud

uses its beak to scoop up large fish into its mouth

uses its beak to pull plants from the water

[1]

4 The diagram shows the structure of a volcano.



(a) Complete the sentences about this volcano.

Use the diagram to help you.

Liquid rock is found below ground in the

When the volcano erupts lava flows out of the secondary cone and out of the

[2]

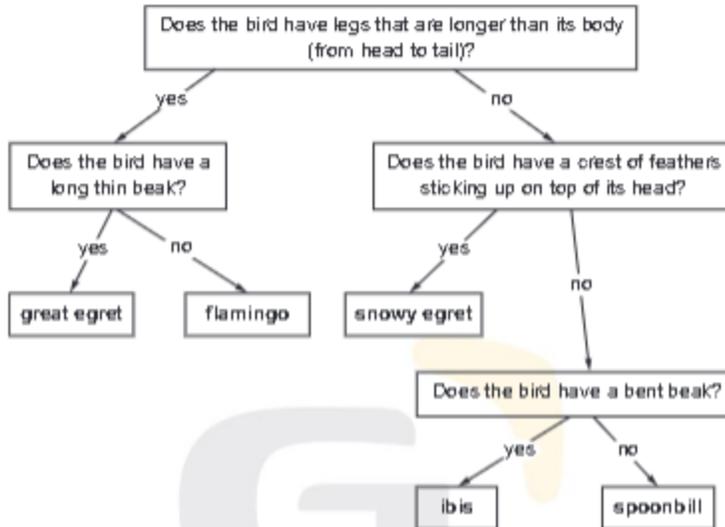
(b) Volcanoes are found at breaks in the Earth's crust.

What word describes the sudden movement of the Earth's crust?

..... [1]

7 Some birds are suited to live and find food in water.

Mike finds this identification key on the internet.



(a) Which bird in the key has a bent beak?

..... [1]

(b) Write down one way the great egret is different to the snowy egret.

Use the key to help you.

..... [1]

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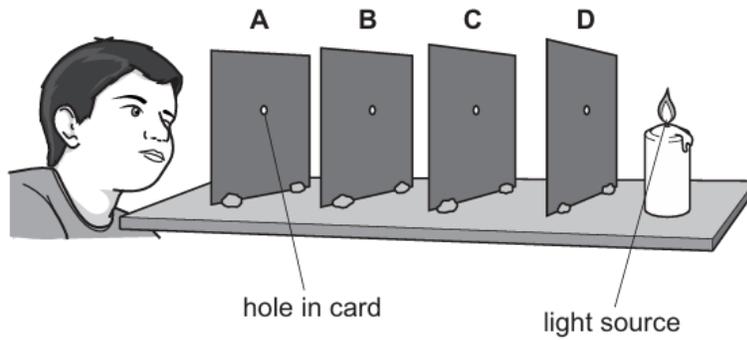
Calculate the temperature change of the water when Mike uses 5 layers of cloth.

Write your answer in the table.

[1]

7 Mike investigates light.

He looks at a light source through the holes in **four** cards.



Mike moves the card **C** upwards by 2 cm.

(a) What happens when Mike looks at the light source through the holes again?

..... [1]

(b) Mike repeats this investigation with card **C**.

Why does Mike repeat the investigation?

..... [1]

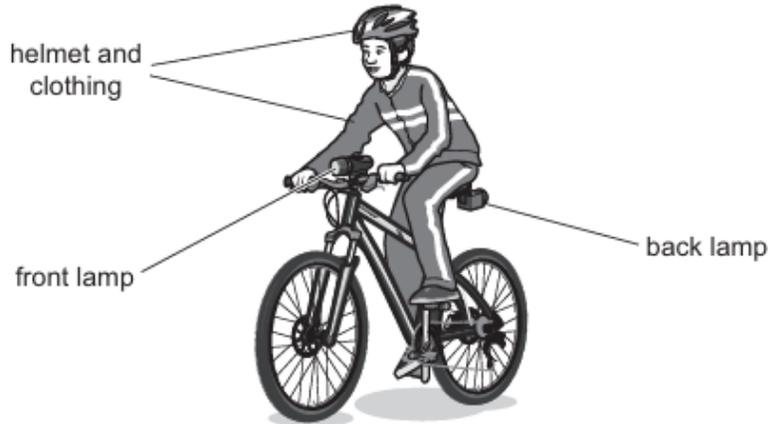
12 Pierre has a light source and a mirror.



Draw a ray of light to show how light is reflected so Pierre can see the light.

[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]

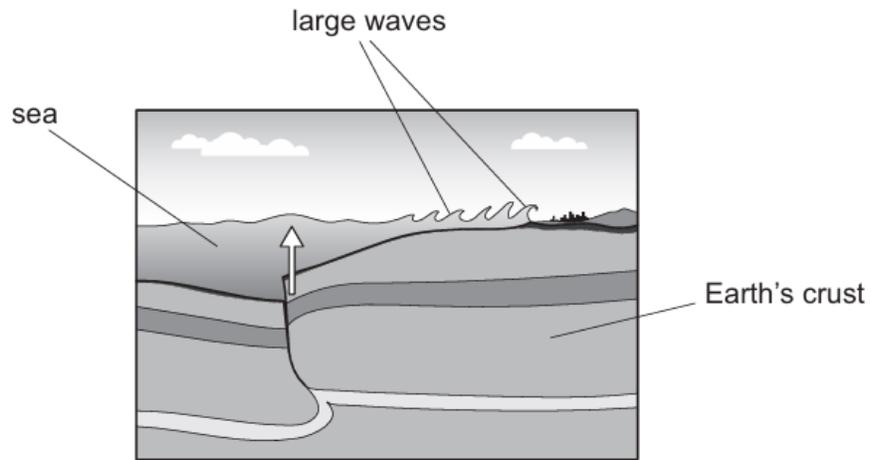
(b) The helmet and clothing are **not** sources of light.

The person in the car sees these clearly.

Explain why.

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

15 Yuri draws a picture of the Earth's crust and the sea.



Describe what is happening to the Earth's crust and what this causes.

.....

.....

..... [2]