Name; ………………………………

Assessment quiz

Diagram 1 below shows the lungs and the trachea, the airway leading to the lungs. One of the lungs is drawn in section.

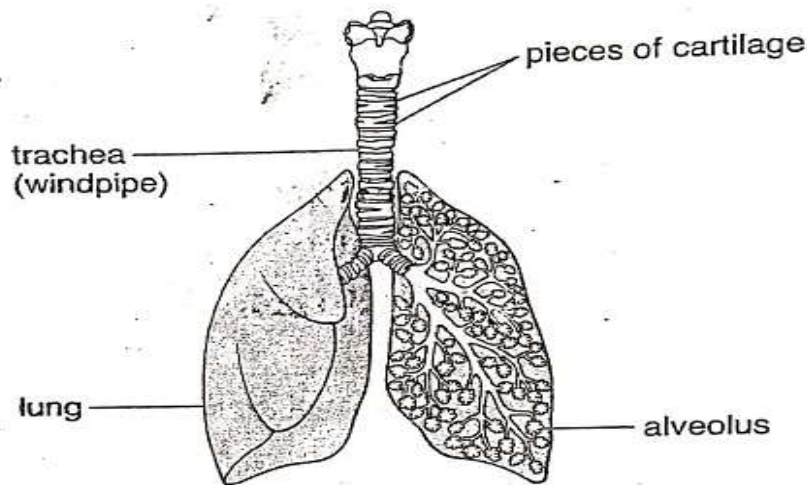pieces of cartilage

trachea
(windpipe)

lung

alveolus

diagram 1

(a)   In the wall of the trachea, there are pieces of a stiff material called cartilage.

Why is this stiff material necessary in the wall of the trachea?

1 mark

_____

_____

(b)   Diagram 2 below shows one alveolus and its blood supply.

alveolus

gas B

gas A

tiny blood vessel
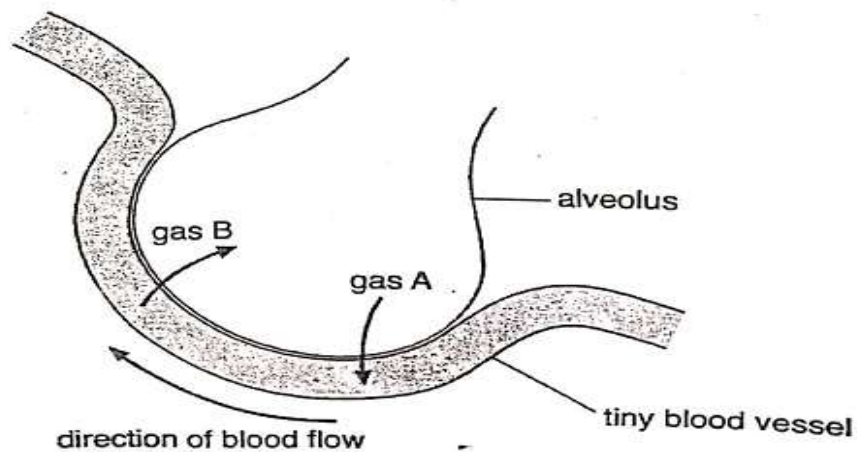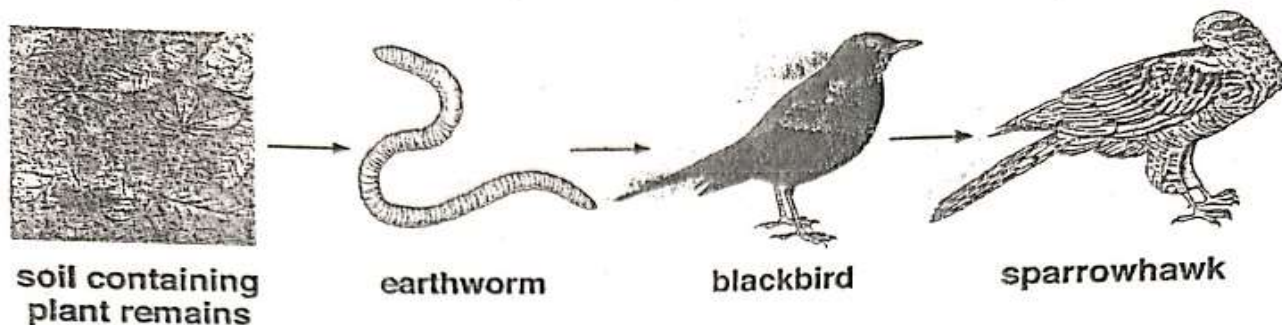
direction of blood flow

diagram 2

Copper and arsenic are present in the soil near copper mines.
When earthworms eat this soil they change from brown to bright yellow.
The copper and arsenic are **not** poisonous to earthworms.

(a)   Earthworms are part of the food chain shown below.

| soil containing plant remains | earthworm | blackbird | sparrowhawk |

not to scale

(i)   Use the food chain to suggest how copper and arsenic get into the
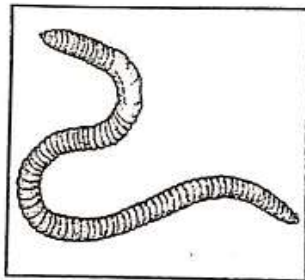body of a sparrowhawk.

_____

_____

_____

(ii) Mary suggested that blackbirds are more likely to catch bright yellow
earthworms than brown earthworms.
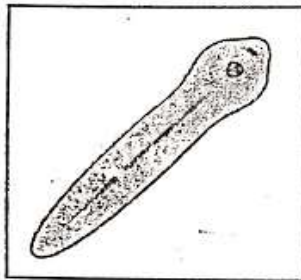
Give **one** reason why this might be true.

_____

_____

(b)   Mary wanted to count the bright yellow earthworms and the brown
earthworms in the soil at different distances from the mines.

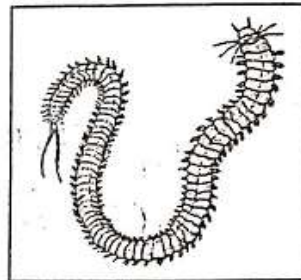What important information about the soil could she get from her results?

_____

_____

(c)   The drawings below show an earthworm and three other worms.
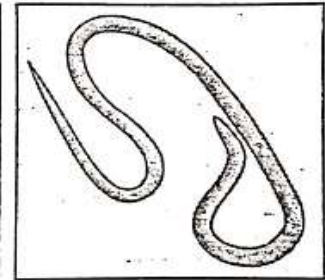

earthworm   flatworm   ragworm   roundworm

not to sca

The ragworm belongs to the same group as the earthworm.

How can you tell this from the drawings?

_____

_____

(d)   The roundworm and some flatworms are parasites.

What does this mean?
Tick the correct box.

They feed only on
insects.   ☐   They live in a burrow.   ☐

They feed on other living
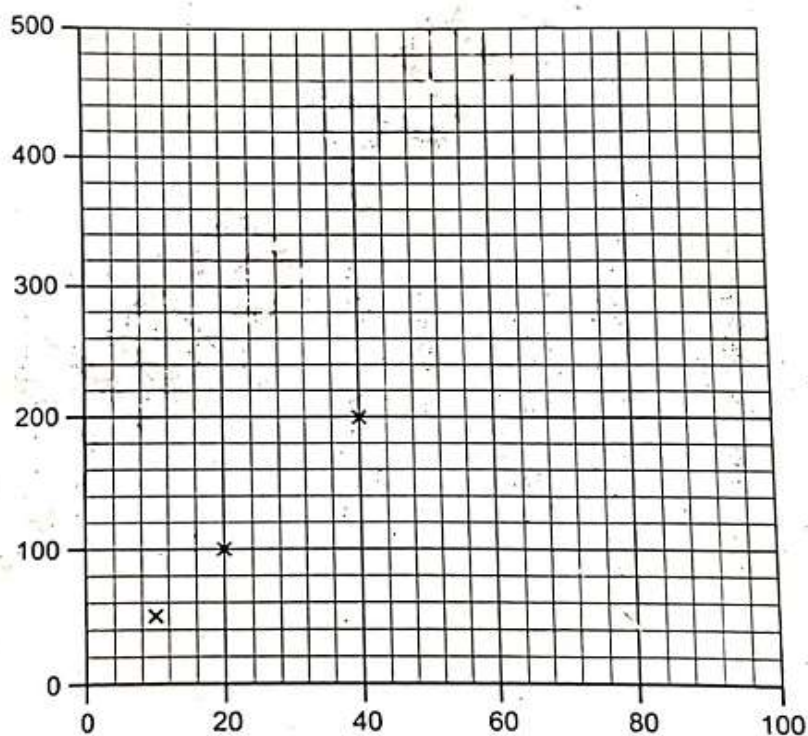things and harm them.   ☐   They live in the sea.   ☐

Youssef has some information about the distance a cyclist can travel in a given time.

time in seconds	distance in metres
10	50
20	100
40	200
60	300
100	500

(a) Complete the graph using the information in the table by

* labelling the axes including units

* plotting the last two points

* drawing a line of best fit.

[3]

(b) Calculate the speed of the cyclist.

………

………

speed …………………………… m / s [2]