

Tao Nan School

Primary 3 Science End-of-year Examination – 2006

Date: 26 October 2006

Class: P3 ( )

Duration: 1.30 p.m. – 2.30 p.m.

Parent's signature: \_\_\_\_\_

Marks: \_\_\_\_\_ / 100

Section A (30 x 2 marks)

For each question, choose the most suitable answer and shade its correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. The two main groups of living things are \_\_\_\_\_.

- (1) Fish and Birds
- (2) Plants and Animals
- (3) Plants and Humans
- (4) Animals and Humans

2. Which of the following organisms is useful to Man?

- (1) Lice
- (2) Yeast
- (3) Dust mite
- (4) Bread Mould

3. Which of the following statements is **true**?

- (1) All flowering plants have seeds.
- (2) Only flowering plants can bear fruits.
- (3) Non-flowering plants cannot reproduce.
- (4) Non-flowering plants are non-green plants.

4. Which of the following animals has been **incorrectly** matched with the way it reproduces?

	Animal	The way it reproduces
(1)	Turtle	Lays eggs on land
(2)	Dolphin	Gives birth in water
(3)	Damselfly	Lays eggs in water
(4)	Spiny Anteater	Gives birth on land

5. Which of the following properties can be found in **most** alloys of metals?

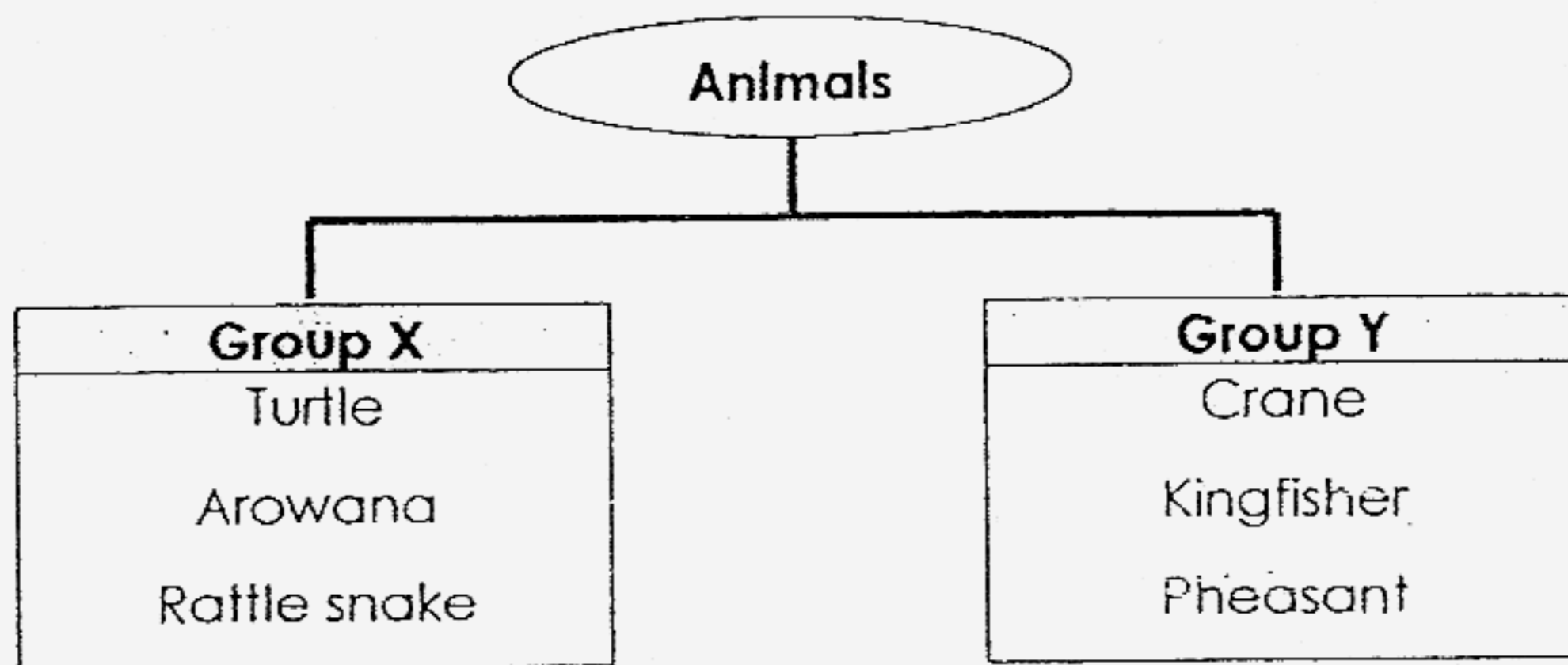
- (1) soft and strong
- (2) hard and shiny
- (3) hard and strong
- (4) durable and light

6. At which stage of its life cycle does the insect below moult several times?



- (1) Egg
- (2) Larva
- (3) Pupa
- (4) Adult

7. The classification chart below shows animals grouped according to their outer body covering.



Which of the following animals belongs to Group X?

- (1) Emu
- (2) Platypus
- (3) Guppies
- (4) Dragonfly

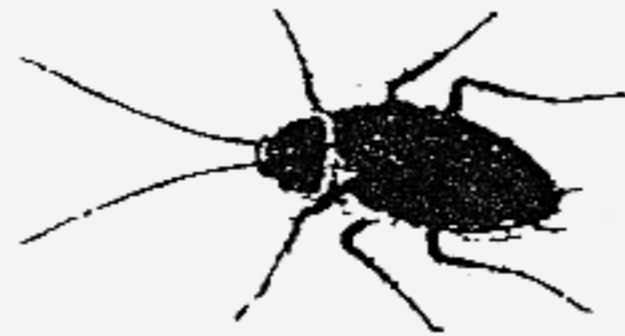
8. Which of the following statements about materials is **Incorrect**?

- (1) Silk is used to make scarves because it is light.
- (2) Wood is used to make furniture because it is strong and durable.
- (3) Metal is used to make cooking utensils because it can conduct heat easily.
- (4) Plastic is used to make raincoats because it is cheap and transparent.

9. Joshua needs some materials for to make a boat float. Which of the following materials must he avoid?

- (1) Plastic
- (2) Sponge
- (3) Styrofoam
- (4) Wax paper

10.



A cockroach

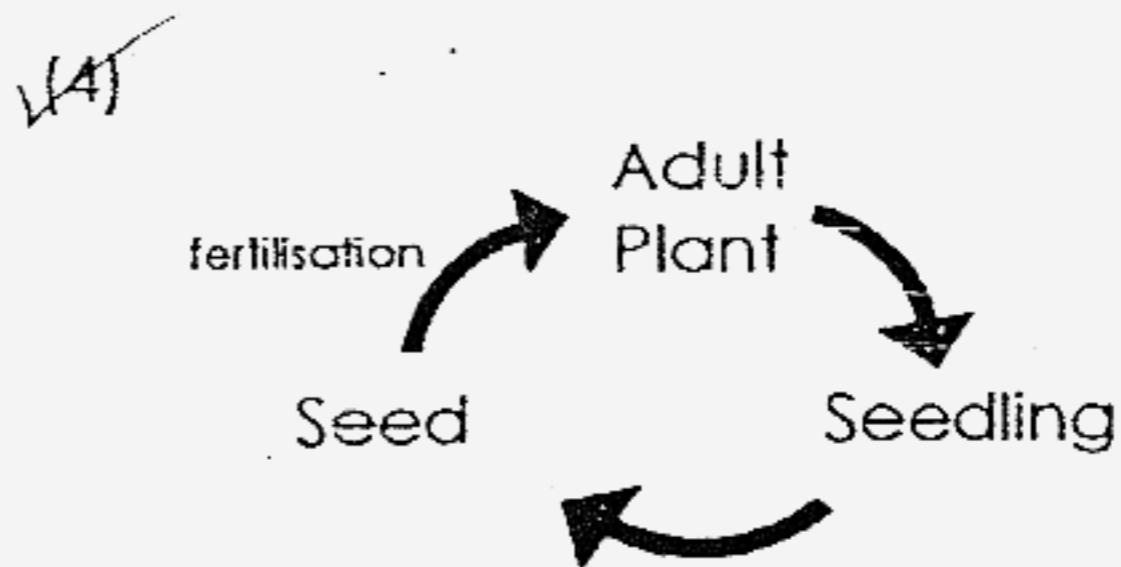
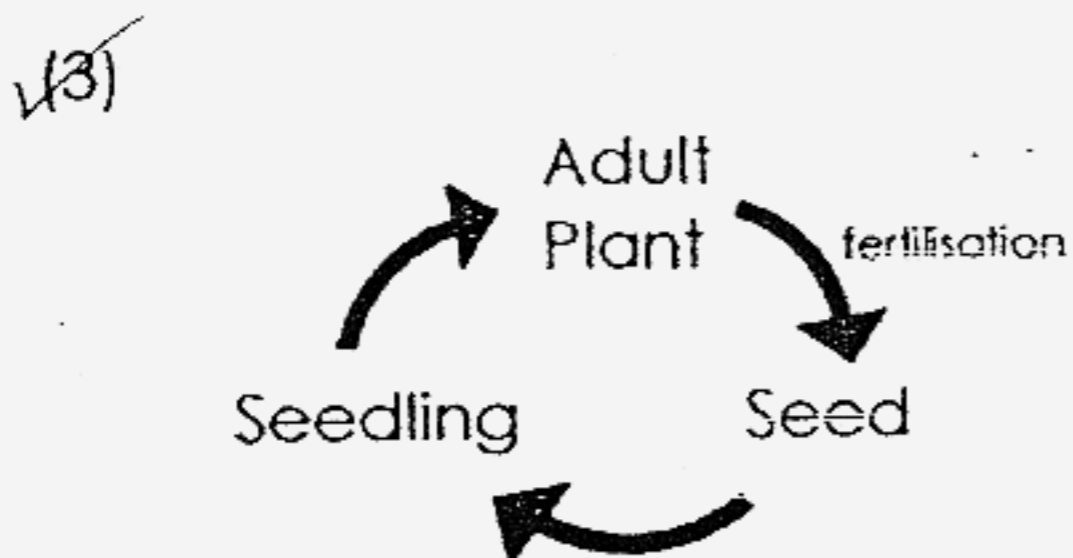
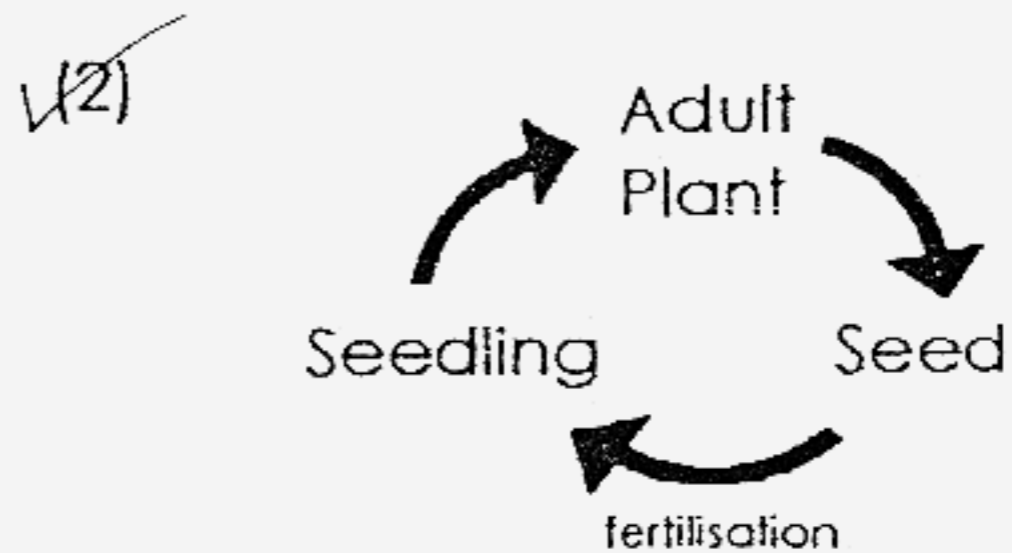
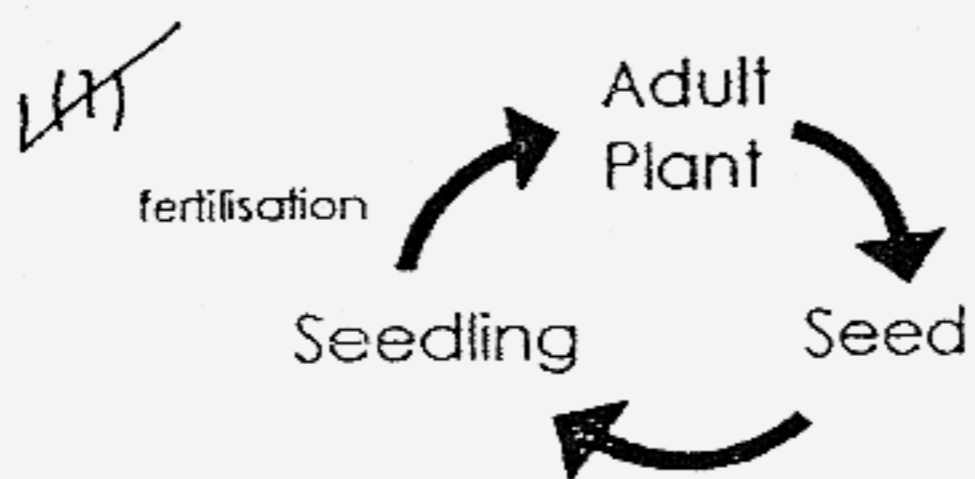


Planet Earth

Which of the following **does not** describe the cockroach and Planet Earth?

- (1) They take up space.
- (2) They respond to changes.
- (3) They move by themselves.
- (4) They can grow and reproduce.

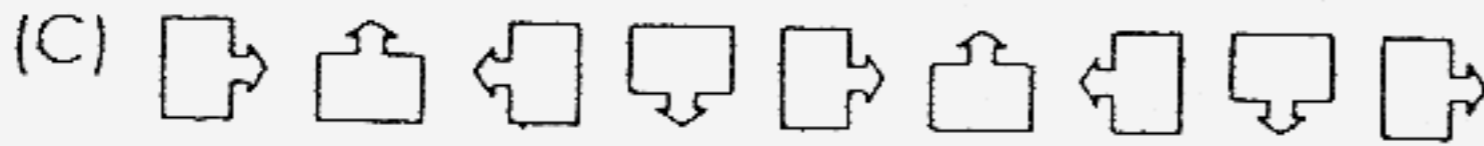
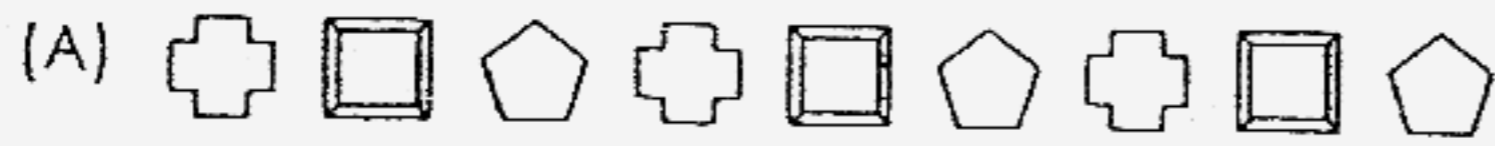
11. Which of the following is the life cycle of a string bean plant?



12. Kenny was in the garden when he discovered a rotten toad. What senses did he use?

- (1) sight and smell
- (2) smell and taste
- (3) smell and touch
- (4) hearing and touch

13. Which of the following follows a set pattern?



(1) B only

(2) C and D only

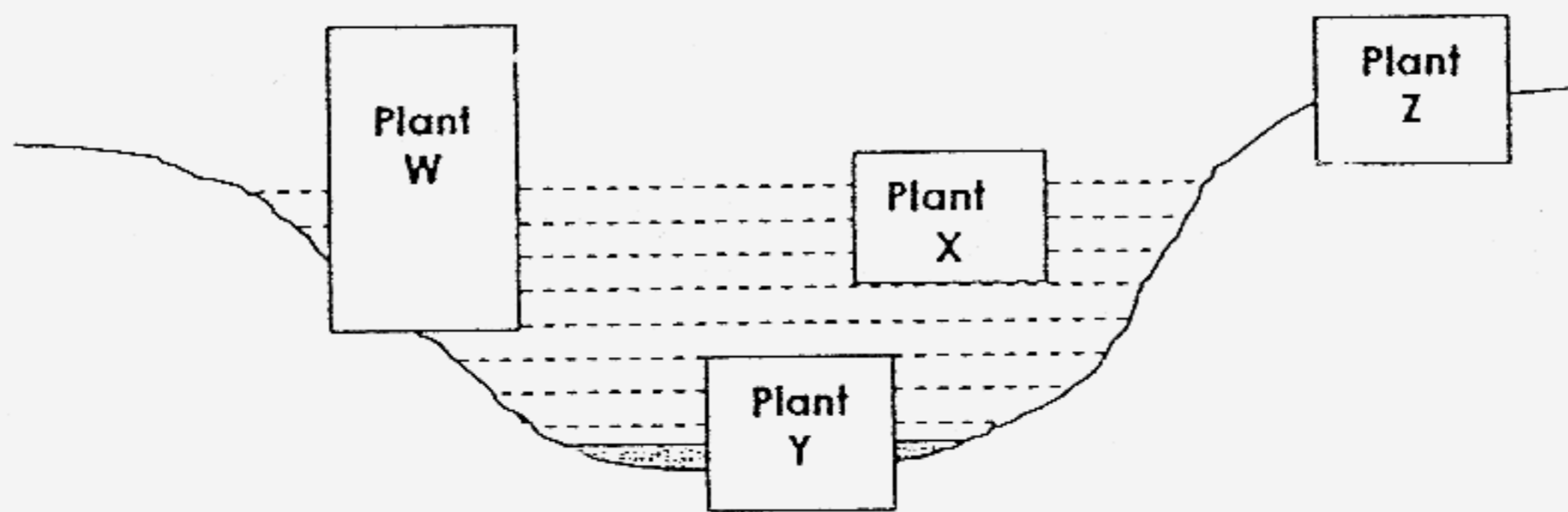
(3) A, C and D only

(4) A, B, C and D

14. Which of the following classifications is true?

	3-stage life cycles	4-stage life cycles
(1)	Penguin	Housefly
(2)	Moth	Cicada
(3)	Mosquito	Cricket
(4)	Pigeon	Damselfly

A diagram of a pond is shown below. Study the diagram and answer Q. 15, 16, 17 and 18 that follow.



15. Which of the following can be a water lettuce?

- (1) Plant W
- (2) Plant X
- (3) Plant Y
- (4) Plant Z

16. Which of the following characteristics must **Plant X** have to live on the surface of the pond?

- (1) Have chlorophyll
- (2) Is light and has small leaves
- (3) Can float on water
- (4) Able to make food

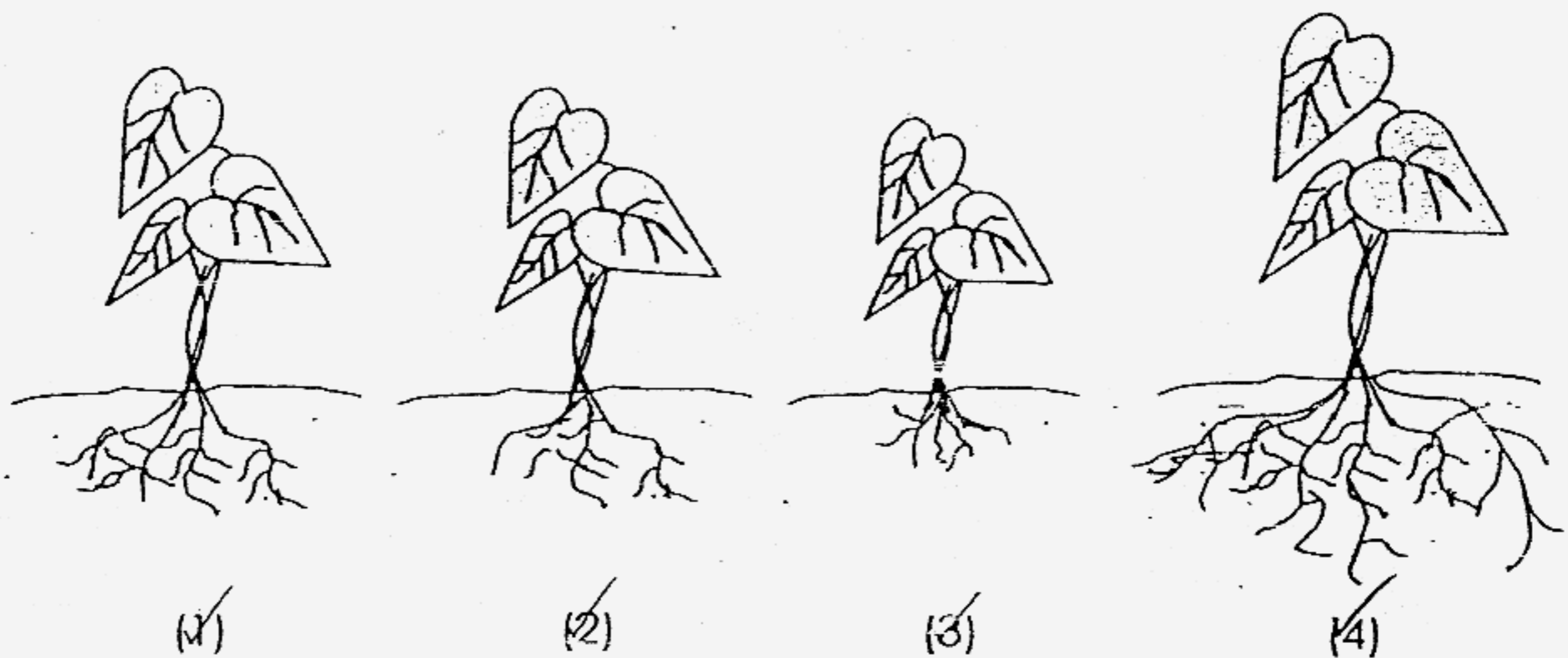
17. Which of the following can be **Plant W**?

- (1) Elodea
- (2) Cattail
- (3) Hydrilla
- (4) Duckweed

18. Which of the following is **true**?

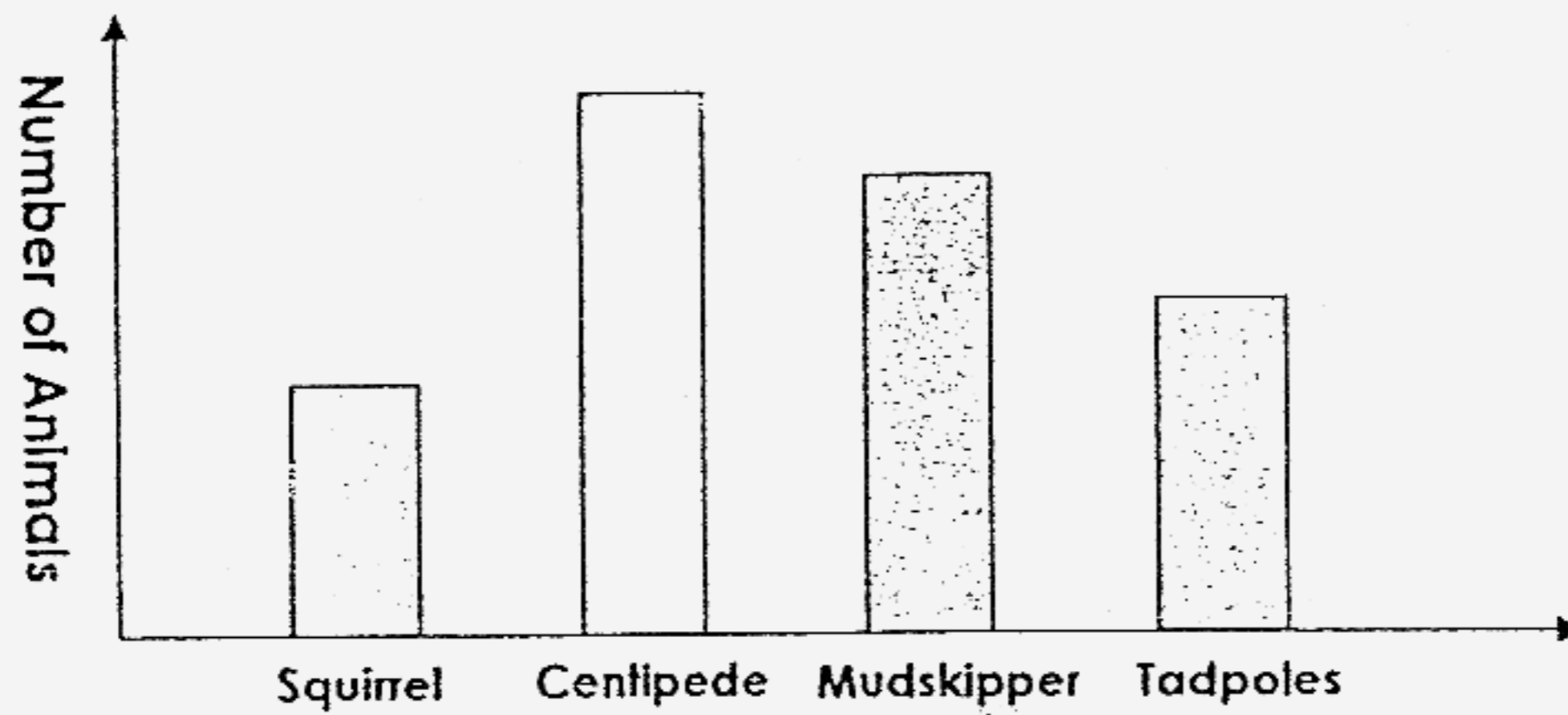
- (1) Plant Y cannot make food because it is under water.
- (2) Plant Y takes in oxygen and gives out carbon dioxide using its gills.
- (3) Plant Z cannot take in water because it lives on land.
- (4) Plant Z makes food when there is sunlight.

19. Based on the drawings below, which of the following plants will most likely absorb more water from the soil than the others?





20. The graph below shows the number of four different animals.



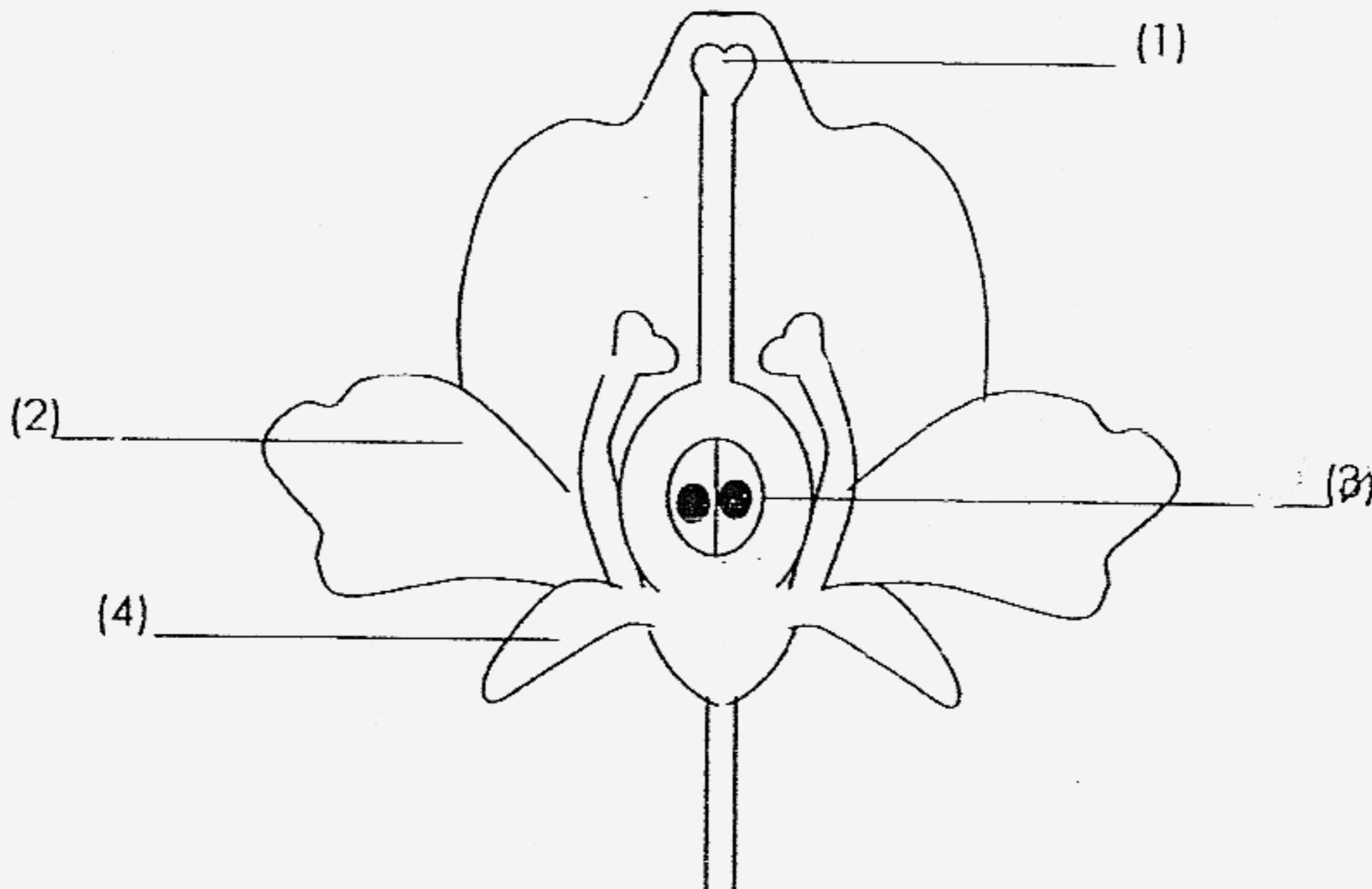
According to the graph above, which of the following is **true**?

- (1) The animals live in four different habitats.
- (2) The number of each animal is decreasing.
- (3) There are more mudskippers than squirrels.
- (4) Ants, squirrels and centipedes live in the same habitat.

21. Which of the following has **correctly** matched the animals with their habitats?

	Squirrels	Centipedes	Mudskippers	Tadpoles
(1)	Garden	Swamp	Pond	Tree
(2)	Tree	Garden	Swamp	Pond
(3)	Swamp	Pond	Tree	Garden
(4)	Pond	Tree	Garden	Swamp

22. Study the cross-section of a flower below. Which part of the flower develops into a fruit?



23. What is the path taken by food after it enters the mouth?

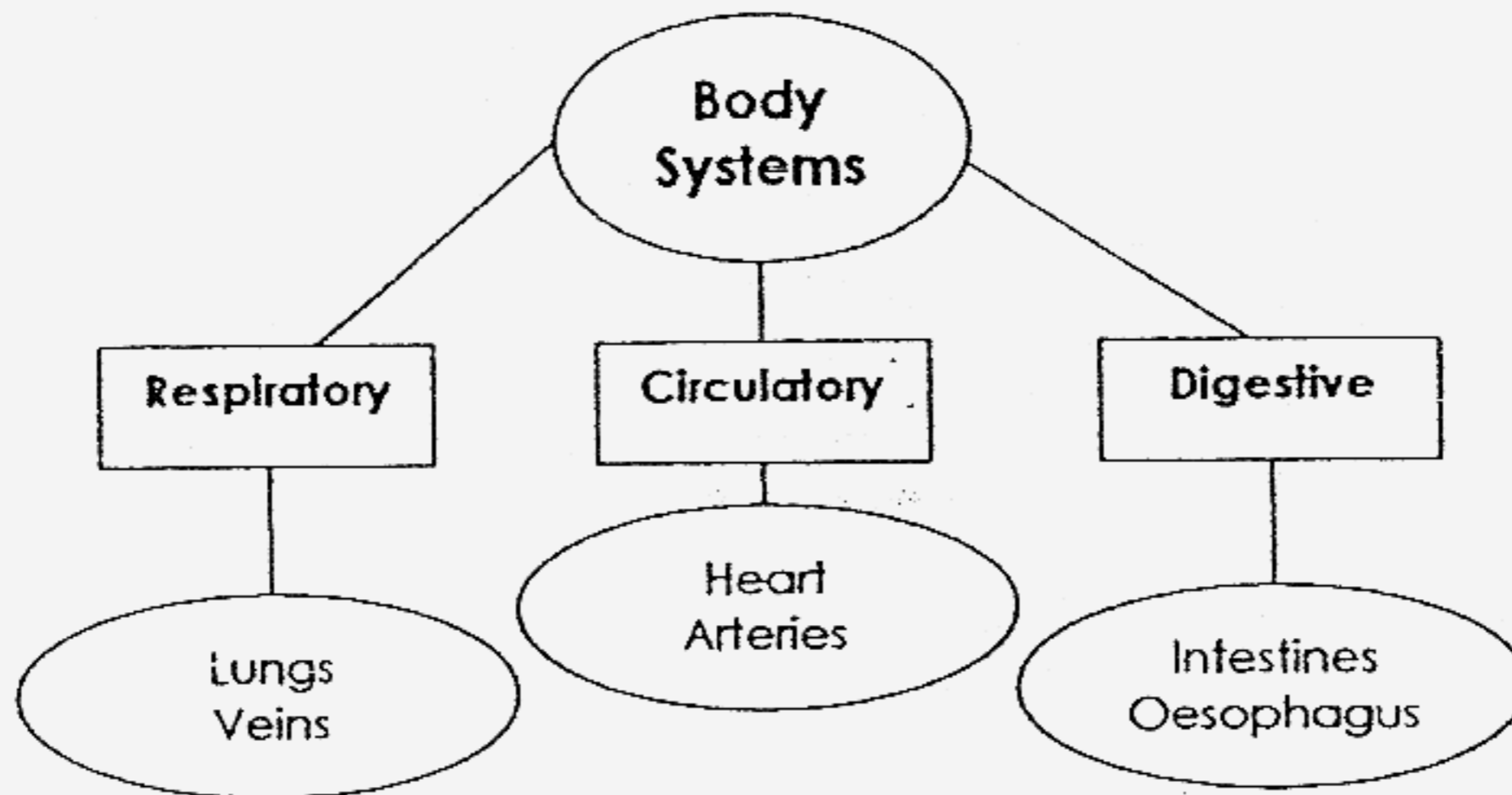
(1) Mouth → gullet → stomach → small intestine

(2) Mouth → stomach → gullet → small intestine

(3) Mouth → gullet → small intestine → stomach

(4) Mouth → small intestine → gullet → stomach

24. The body organs below are classified according to the body systems that they belong to. Which of the organs has been **wrongly** classified?



- (1) Veins
- (2) Heart
- (3) Arteries
- (4) Oesophagus

25. Hinge joints can be found at several parts of our skeletal system.

Which of the following are hinge joints?

- (A) Hip joint
  - (B) Knee joint
  - (C) Elbow joint
  - (D) Shoulder joint
- (1) A and B only
  - (2) A and D only
  - (3) B and C only
  - (4) C and D only

26. Which of the following parts of our body need oxygen?

- (1) Brain and heart only
- (2) Brain, lungs and heart only
- (3) Stomach, small intestine and large intestine only
- (4) Every part of our body

27. If both parents have detached earlobes, which of the following is **most likely** to be true of their children?

- (1) All their children have attached earlobes.
- (2) Most of their children have attached earlobes.
- (3) All of their children may have detached earlobes.
- (4) None of their children have detached earlobes.

28. Shirley wants to find out whether the objects, **A**, **B**, **C** and **D**, are magnets. She tested the objects using an iron nail, a piece of crayon, a paper clip and a marble. She recorded her results in the table below.

Objects	Iron nail	Crayon	Paper clip	Marble
A	√	x	√	x
B	x	x	x	x
C	√	x	√	x
D	x	x	x	x

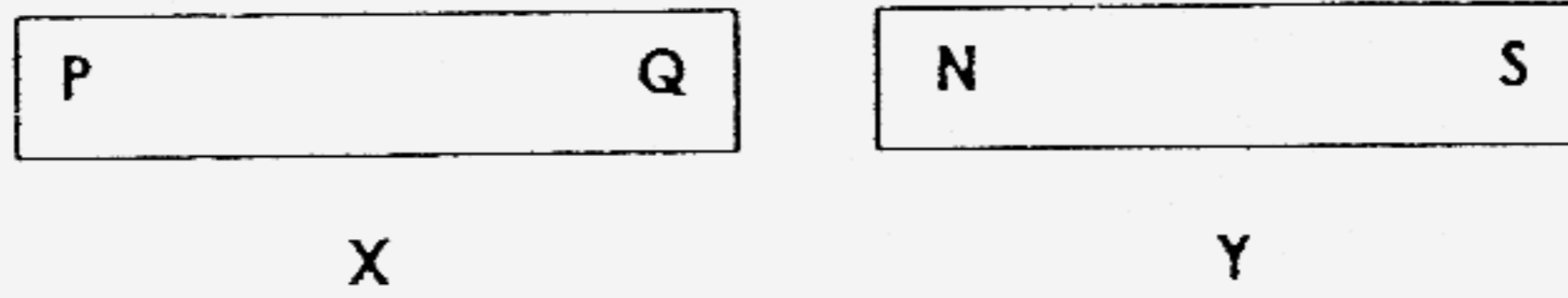
**Key:** √ - attracted

X - not attracted

Which objects are magnets?

- (1) A and C only
- (2) A and D only
- (3) B and C only
- (4) B and D only

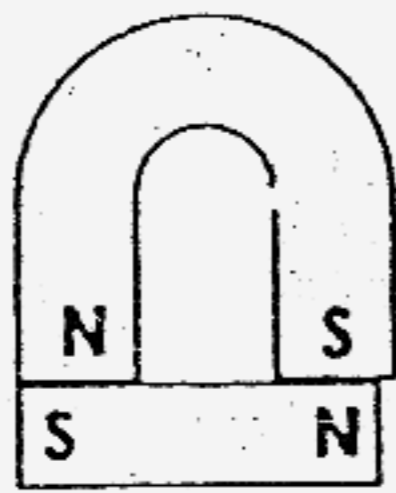
29. Magnets, X and Y, are placed side by side as shown below.



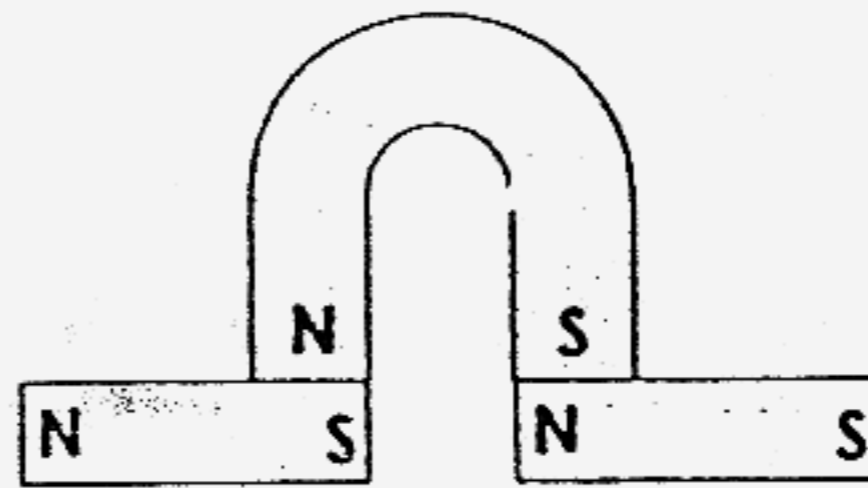
When brought together, N and Q repel. Which of the following is **false**?

- (1) N and Q are like poles.
- (2) P and N will repel each other.
- (3) P and N are unlike poles.
- (4) Q and S will attract each other.

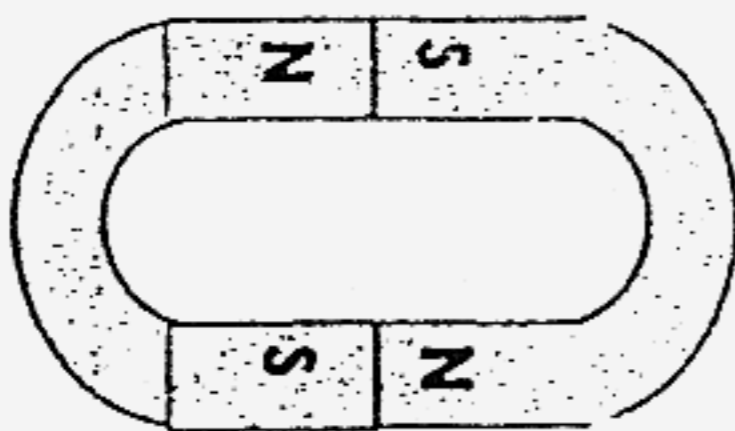
30. Study the arrangements of the magnets below. Which of the following arrangements is **not possible**?



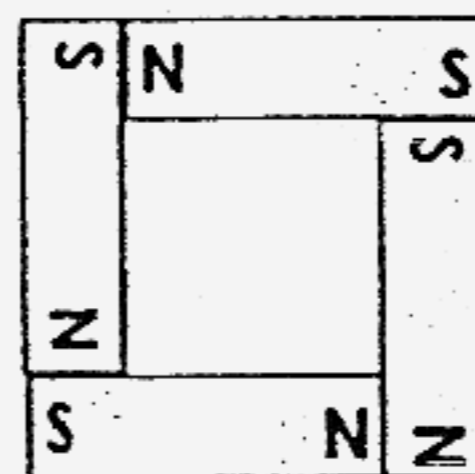
(1)



(2)



(3)

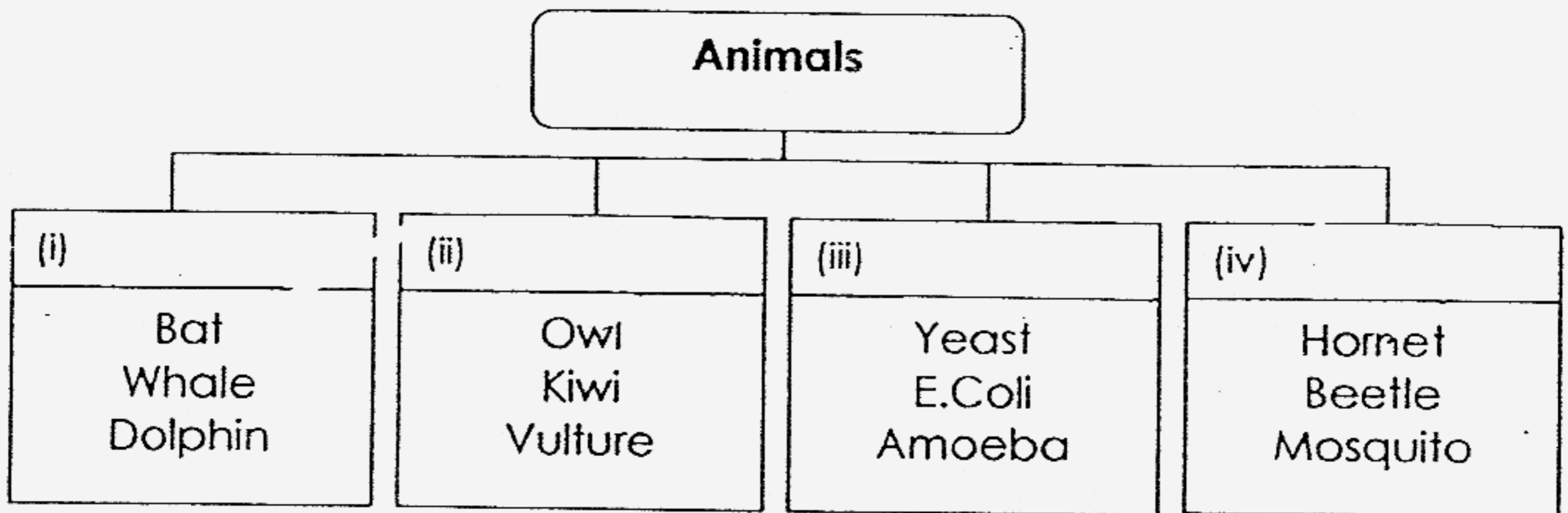


(4)

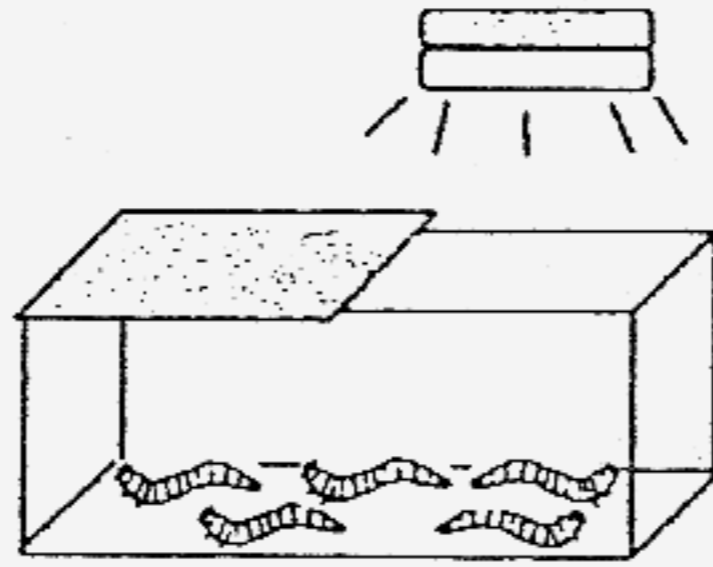
**Section B (40 marks)**

**Write your answers in the spaces provided.**

31. The chart below shows 4 groups of animals. Give a suitable heading for each of the groups. (4m)



32. The diagram below shows some mealworms in a container which is half covered by a lid. The other half of the container is exposed to bright light.



(a) What will the mealworms do after some time? (1m)

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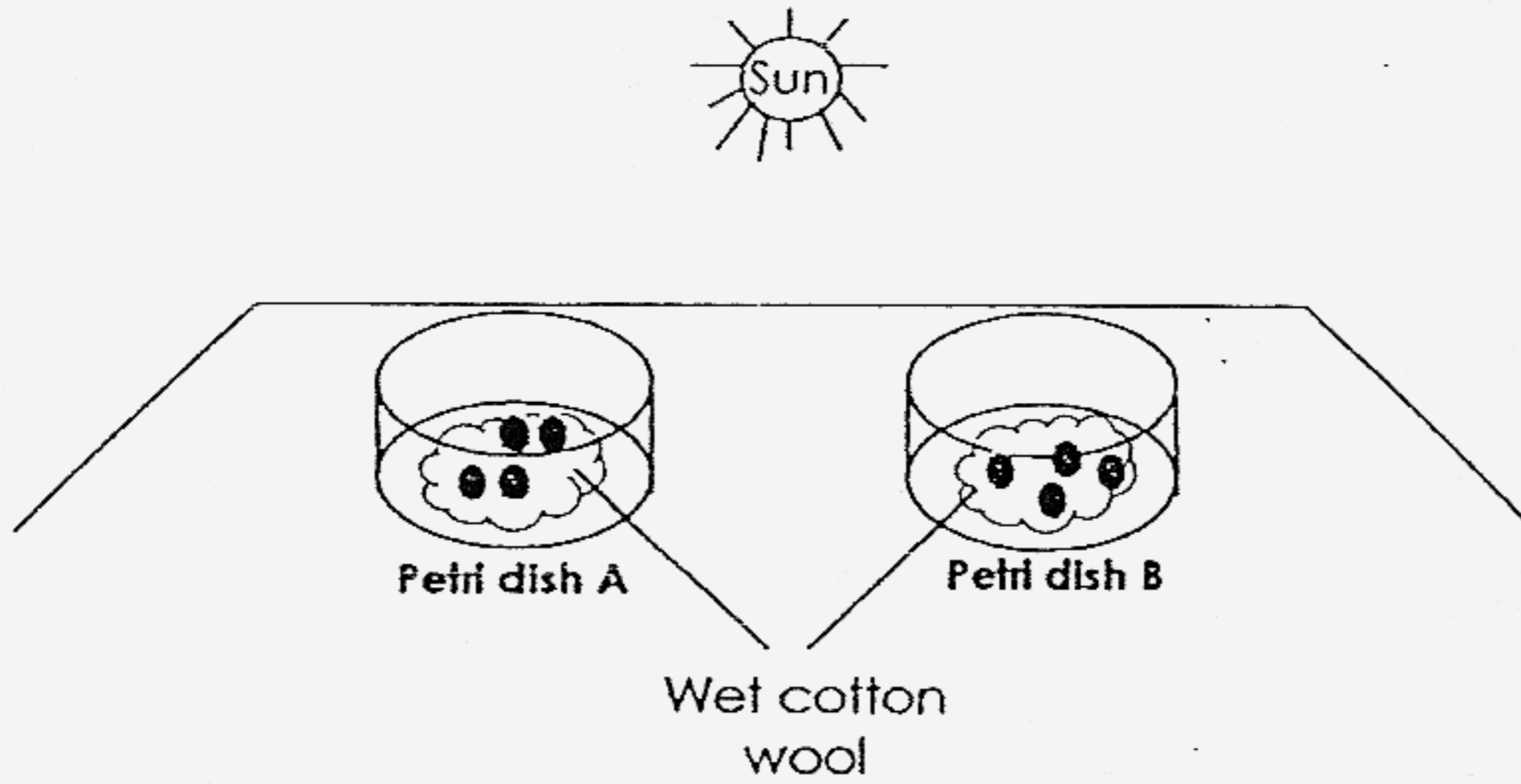
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(b) What does this show? (1m)

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33. Kimberley has set up an experiment as shown below to find out if light is necessary for seeds to germinate.



(a) Her Science teacher told her that her experiment will not work.  
What is wrong with her set-up? (1m)

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(b) What must she do to her set-up so that her experiment will work?  
(1m)

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34. Suggest two reasons why water plants are important to the animals in a pond. (2m)

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

35. Study the table below.

Groups	A	B	C
Objects	Scarf	Magazine	Coin
	Neck tie	Postage stamp	Staple

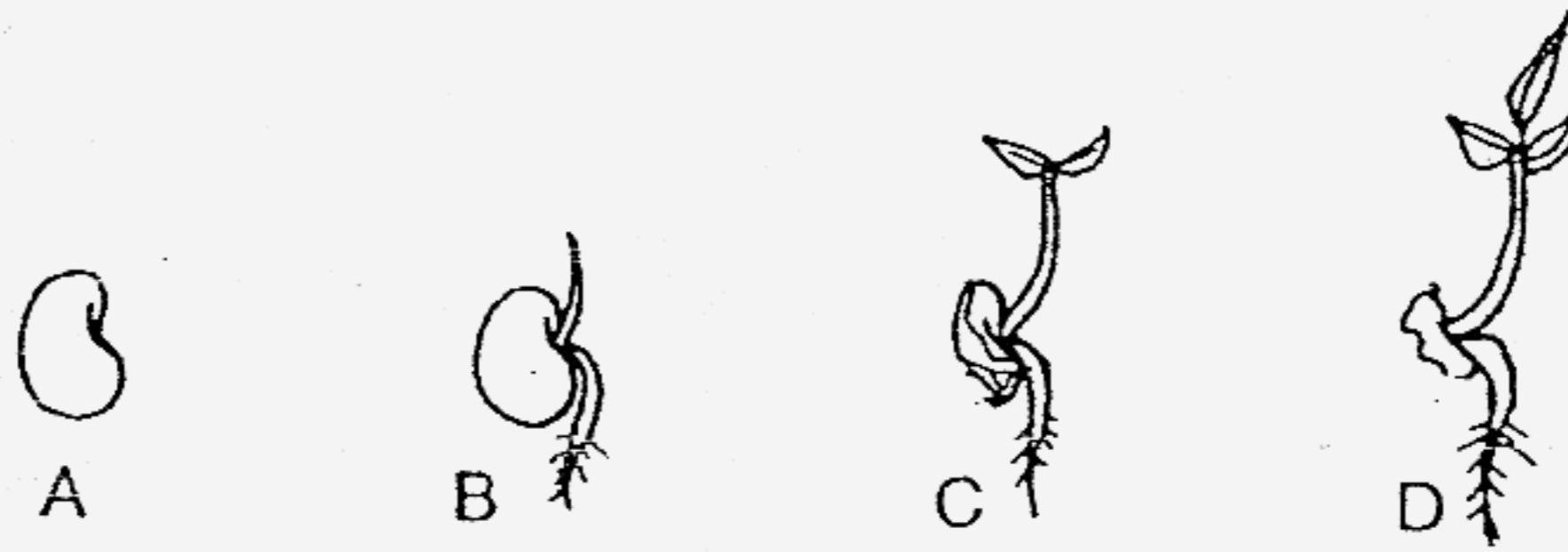
(a) In which group would you place a post card? (1m)

\_\_\_\_\_  
\_\_\_\_\_

(b) Give a reason for your answer in (a). (1m)

\_\_\_\_\_  
\_\_\_\_\_

36. The diagram below shows the stages of growth of a seed.



(a) What is the food source of the seed at stages A and B? (1m)

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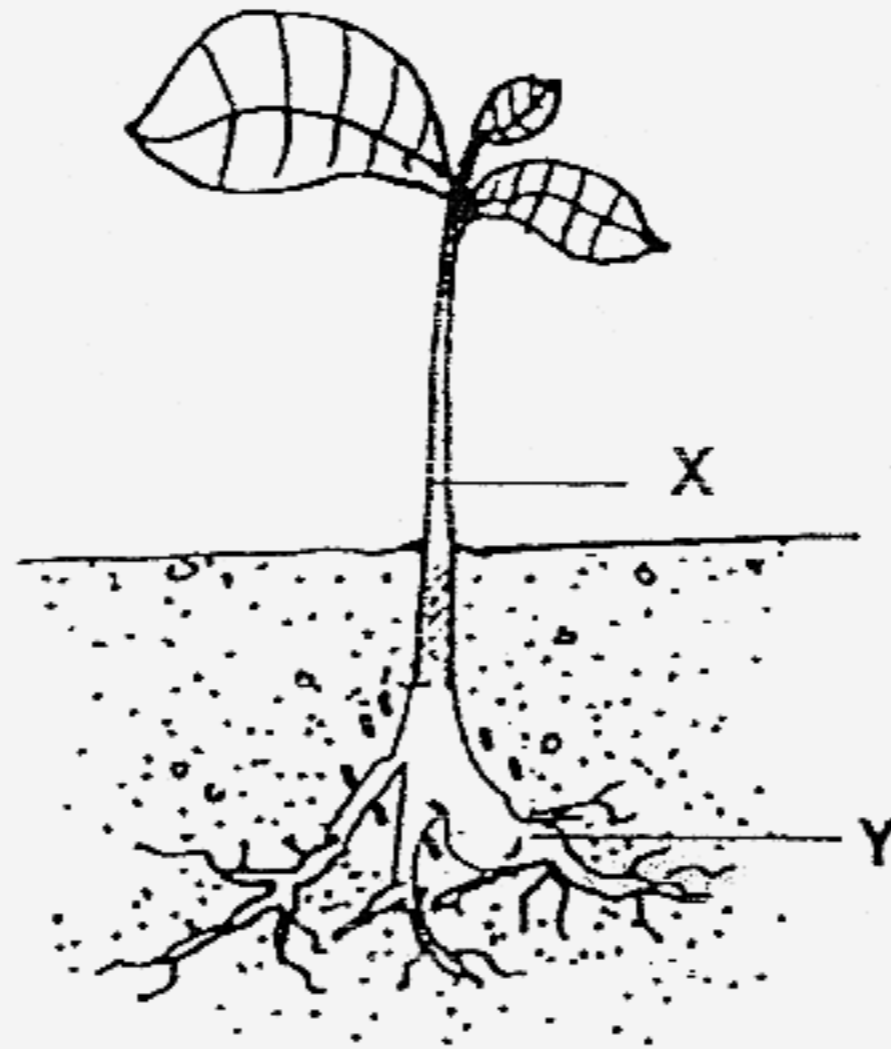
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(b) How does the seedling at stage C and D obtain its food? (1m)

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37. The diagram below shows a green plant.



What are the plant parts labelled X and Y and their functions? (3m)

	Plant Part	Function
X		
Y		

38. Write a 'T' for 'True' and a 'F' for 'False' for each of the following statements, in the boxes provided. (2m)

(a) Saliva is a digestive juice.

(b) The stomach secretes gastric juices.

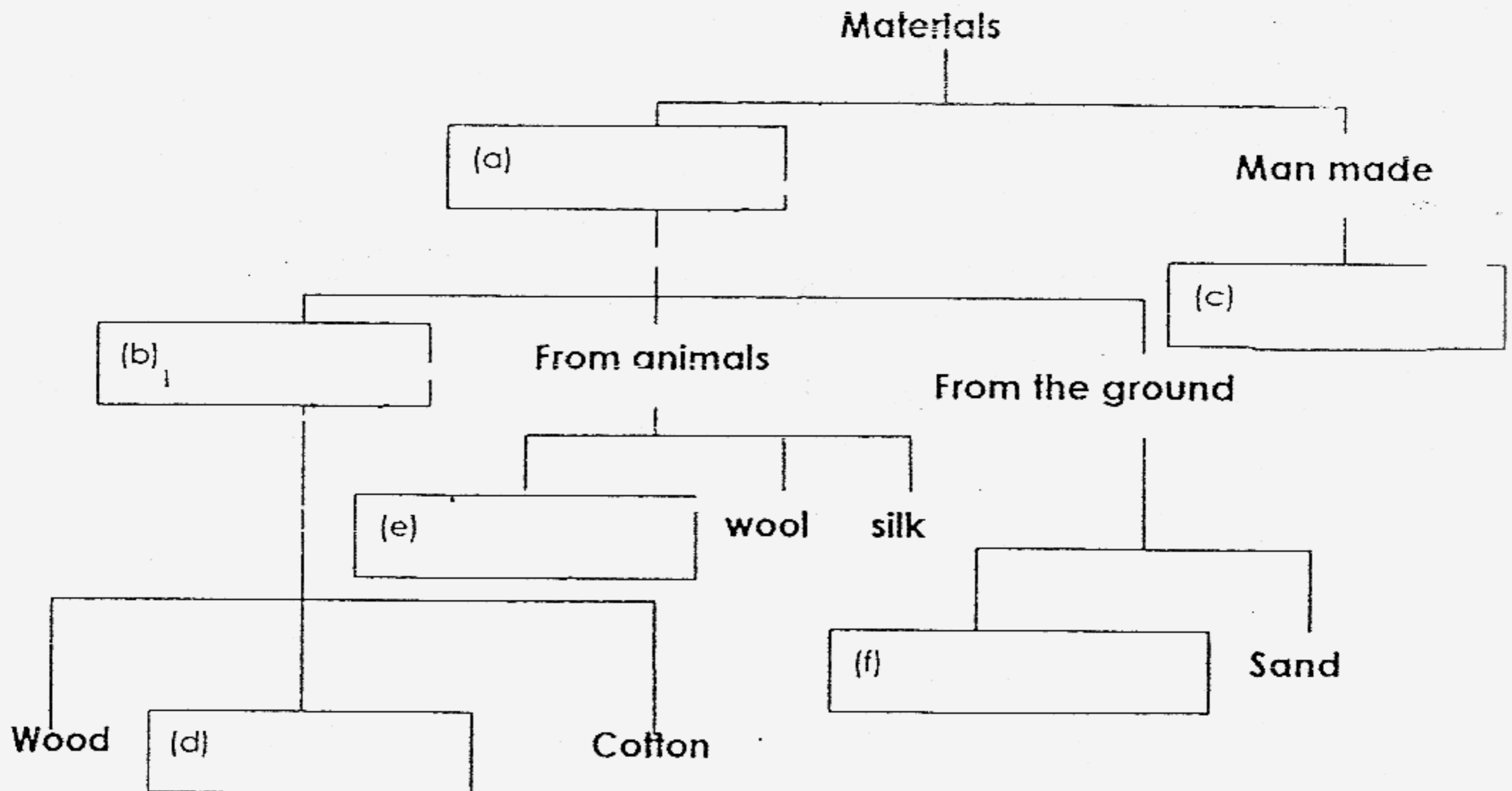
(c) The gullet churns the food into smaller pieces.

(d) The large intestine mixes the digestive juices with the food to produce a thick fluid.

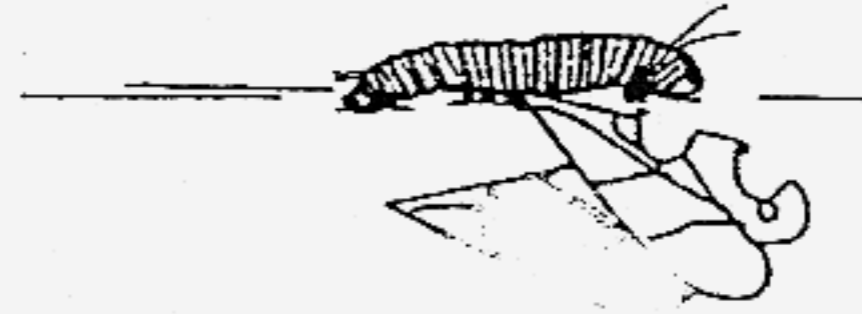
39. The table below shows a comparison of the life cycles of a beetle and a cockroach. Study the table below and fill in the blank spaces. (4m)

	Beetle	Cockroach
How many stages of growth it has?		
Does it have a larva stage?	Yes	
Does it have a pupa stage?	Yes	
Does it moult?		
Does it resemble its parents?		Yes
How is the young's appetite for food?		Big

40. Below is a concept map on Materials. Complete it by filling in the boxes with the most suitable words. (3m)



41. Refer to the diagrams below. State **three** differences between a caterpillar and an adult butterfly in terms of the characteristics stated in (i), (ii) and (iii). (3m)



(i) Physical appearance -

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(ii) Movement -

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(iii) Food -

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42. Fill in the blanks with the **Helping Words** given below. (2m)

**Helping Words**

mineral salts	water	sugar	stem
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Xylem and phloem are two tubes found in the (i) \_\_\_\_\_ of a plant. Xylem transports (ii) \_\_\_\_\_ and (iii) \_\_\_\_\_ from the soil via the roots to the other parts of the plant. Phloem transports (iv) \_\_\_\_\_ that the leaves have made to the other parts of the plant.

43. Write down two functions of our skeleton. (2m)

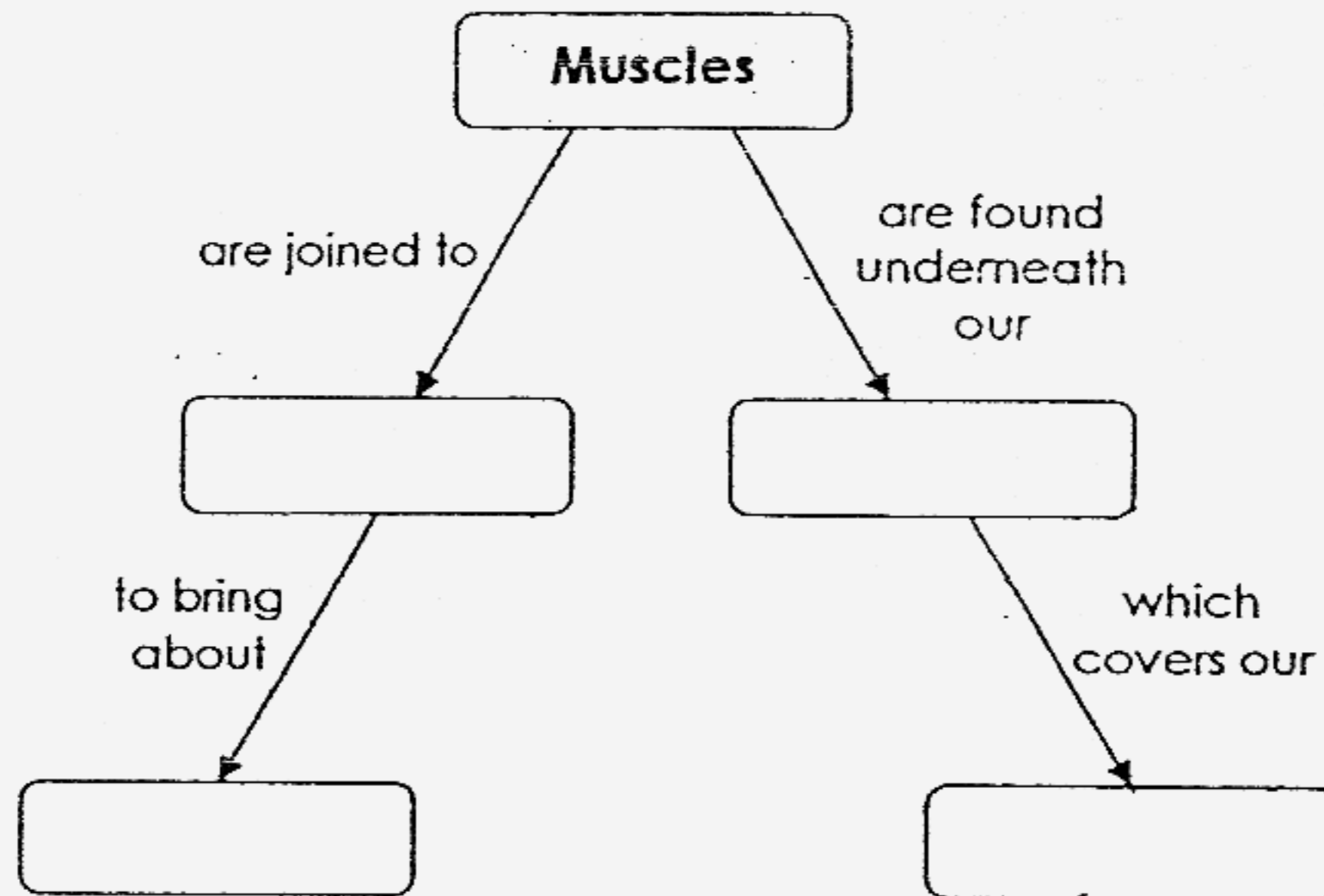
(i) \_\_\_\_\_

(ii) \_\_\_\_\_

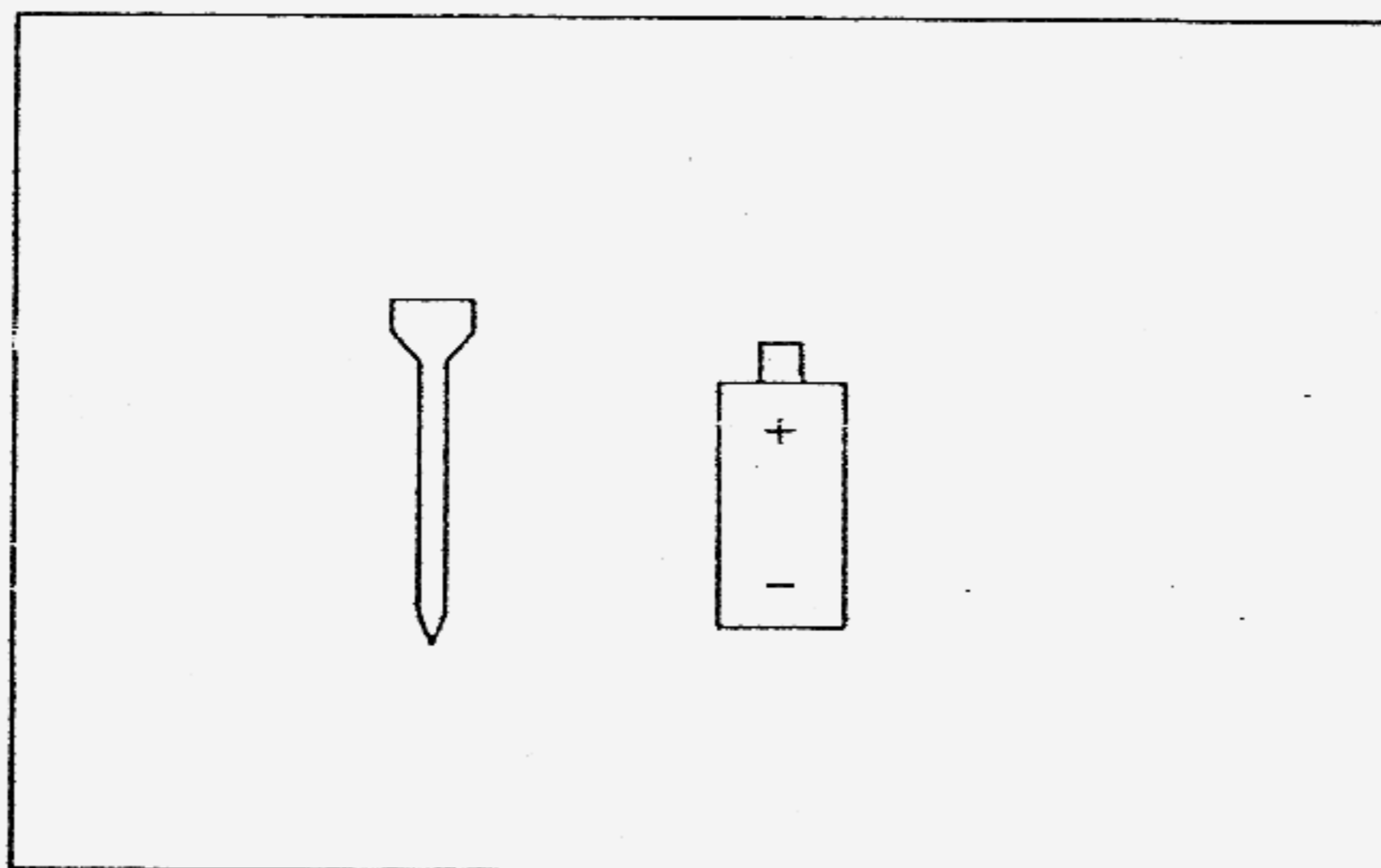
44. Complete the flow chart with the **Helping Words** given below. (2m)

**Helping Words**

bones                      movement                      body                      skin

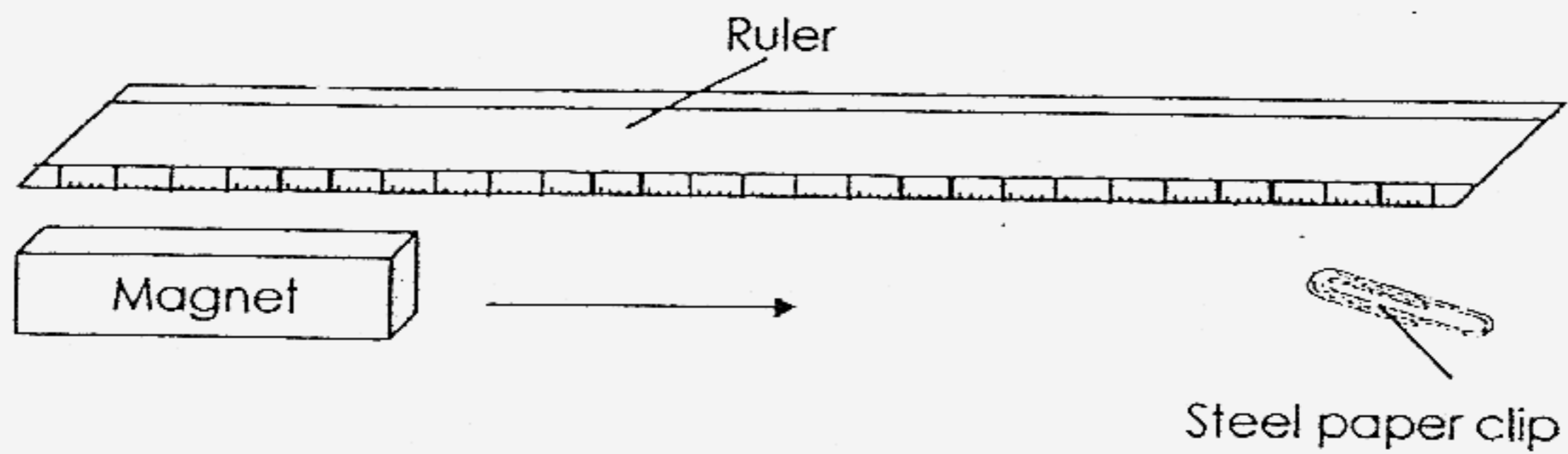


45. Given a battery and an iron nail as shown below, draw what you will do with a wire to make the iron nail into a magnet. (2m)





46. The diagram below shows an experiment done with a magnet.



(a) What happens if the magnet is slowly brought closer to the steel paper clip? (1m)

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(b) What happens if a stronger magnet is used instead? (2m)

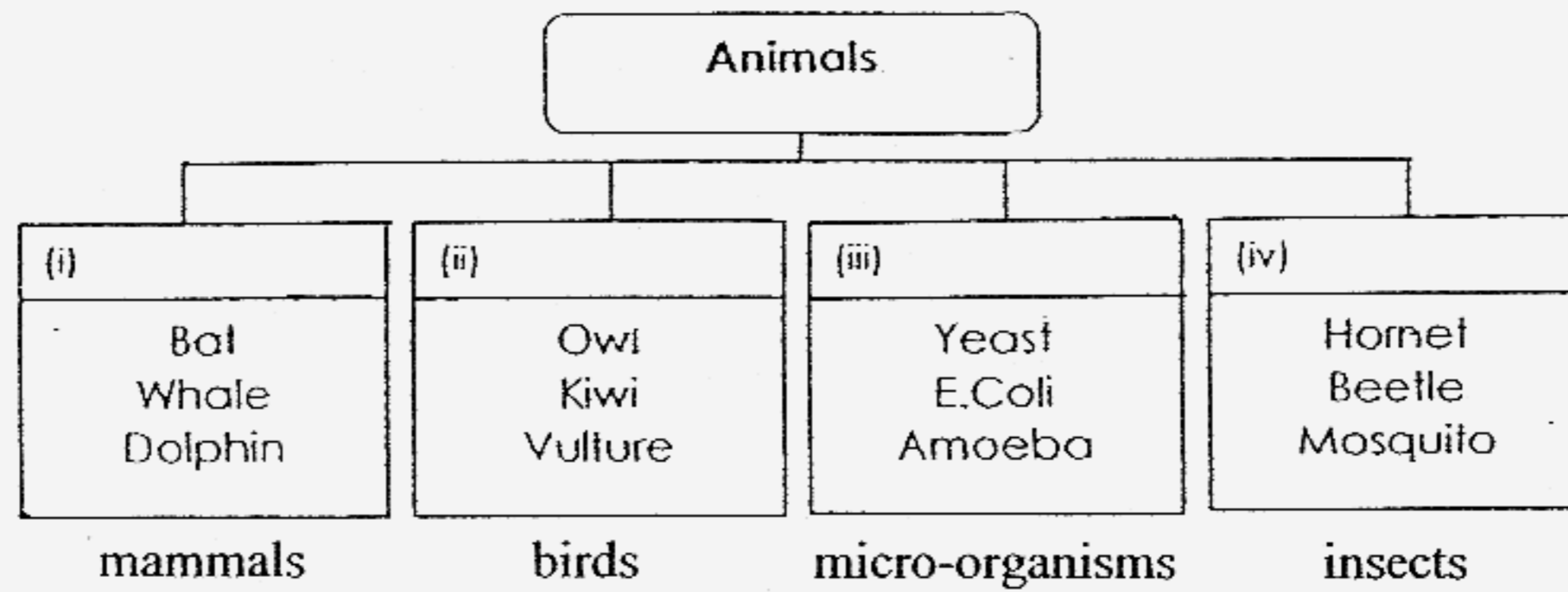
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End of paper

- 1) 2      2) 2      3) 2      4) 4      5) 3  
 6) 2      7) 3      8) 4      9) 2      10) 4  
 11) 3      12) 1      13) 3      14) 1      15) 2  
 16) 3      17) 2      18) 4      19) 4      20) 3  
 21) 2      22) 3      23) 1      24) 1      25) 3  
 26) 4      27) 3      28) 1      29) 2      30) 4

Q31.



- Q32a. The mealworms move under the lid  
 b. The mealworms response to sunlight.
- Q33a. She should place the two Petri dishes under the sun.  
 b. She should place one the Petri dish in the dark place.
- Q34 (i). Water plant provides space for the animal in the water to lay eggs.  
 (ii) The water plants provide food and shelter to the animals in a pond.
- Q35a. Group B  
 b. They are made of paper.
- Q36a. Seed leaves  
 b. It takes in sunlight and makes food with the presence of water and air.

Q37. Plant Part X : Stem  
 Plant Part Y : Roots

Plant Part X : It supports the branches and leaves of the plant and holds them in the best position so as to get more sunlight.  
 Plant Part Y : It takes in water and mineral salts from the soil for the plant.

Q38. Saliva is a digestive juice. (False)  
 The stomach secretes gastric juices. (True)  
 The gullet churns the food into smaller pieces. (False)  
 The large intestine mixes the digestive juices with the food to produce a thick fluid. (False)

Q39.

	Beele	Cockroach
How many stages of growth It has?	4	3
Does It have a larva stage?	Yes	No
Does It have a pupa stage?	Yes	No
Does It moult?	Yes	Yes
Does It resemble Its parents?	No	Yes
How Is the young's appetite for food?	Big	Big

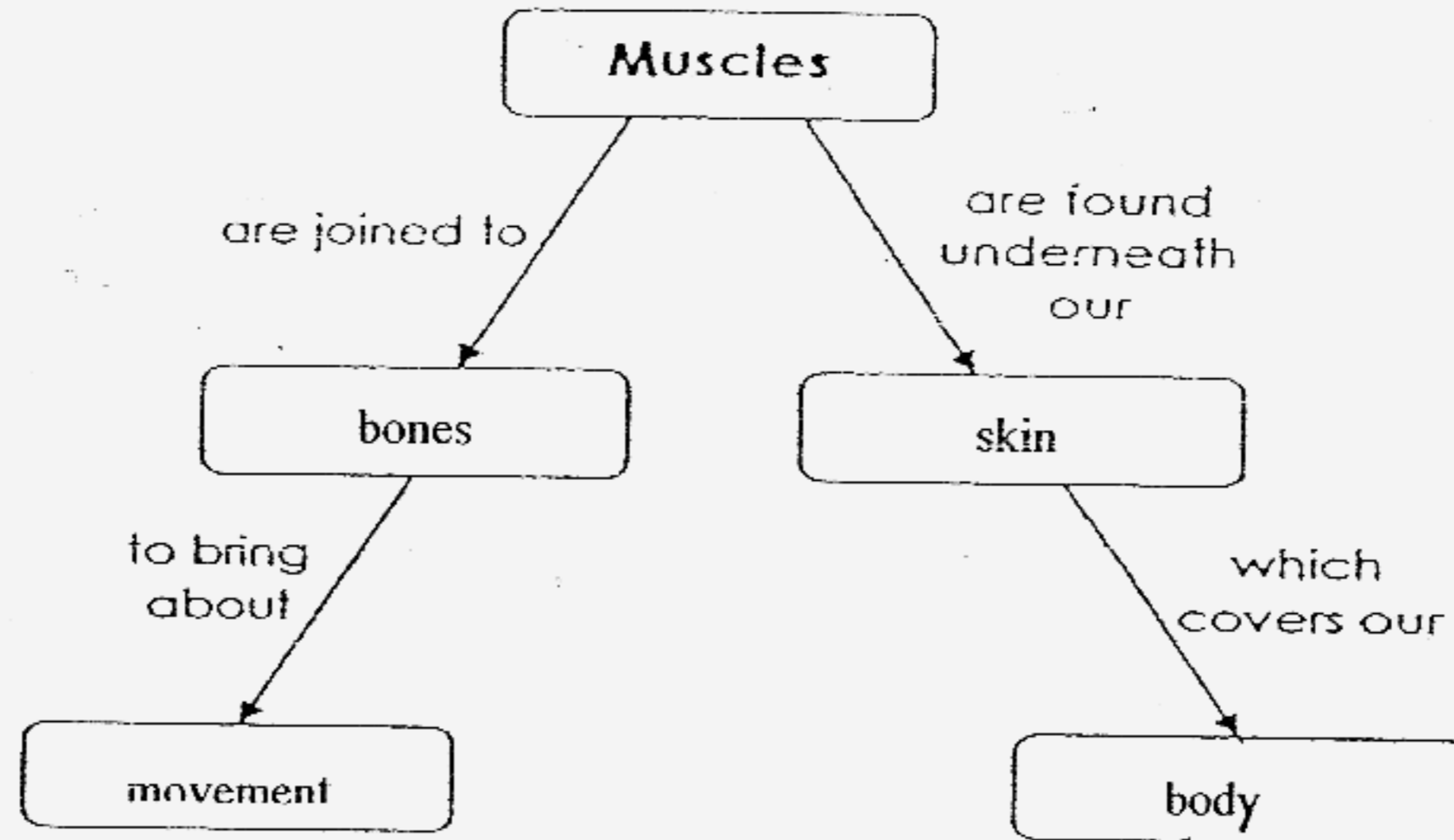
- Q40a. natural  
 b. From plants  
 c. plastic  
 d. rubber  
 e. leather  
 f. metal

Q41 (i) Physical appearance : The caterpillar has no wings, butterfly has wings  
 (ii) Movement : Butterfly fly, caterpillar crawls.  
 (iii) Food : Butterfly eat nectar, caterpillar eat leaves.

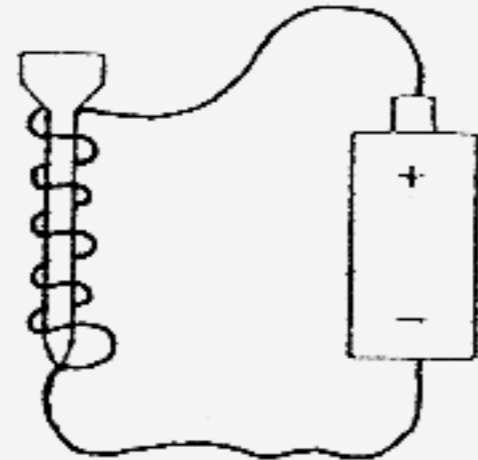
Q42. Xylem and phloem are two tubes found in the stem of a plant. Xylem transports water and minerals salts from the soil via the roots to the other parts of the plant. Phloem transports sugar that the leaves have made to the other parts of the plant.

Q43(i) It gives our body shape.  
(ii) It protects the delicate organs in our body.

Q44.



Q45.



Q46a. The paper clip would be attracted to the magnet.  
b. When the stronger magnet is use, it still can move back a little and the paper clip still would be attracted.