



PRIMARY 4 END-OF-YEAR EXAMINATION 2015

Name : _____ () Date: 30 October 2015

Class : Primary 4 () Time: 7.50 a.m. - 9.15 a.m.

Duration : 1h 25 min

Parent's Signature : _____ Marks: _____ / 50

SCIENCE BOOKLET A

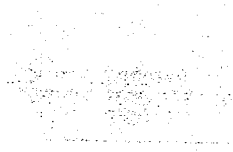
INSTRUCTIONS TO CANDIDATES

Write your name, register number and class.

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

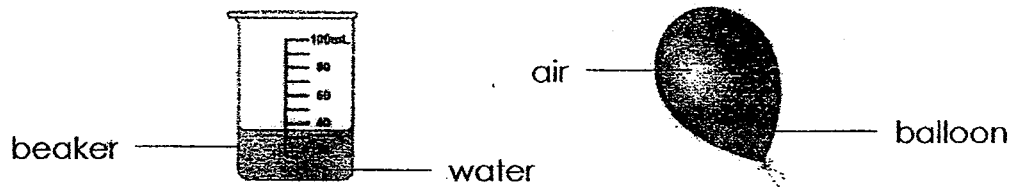
Answer all questions.



Section A (25 x 2 marks).

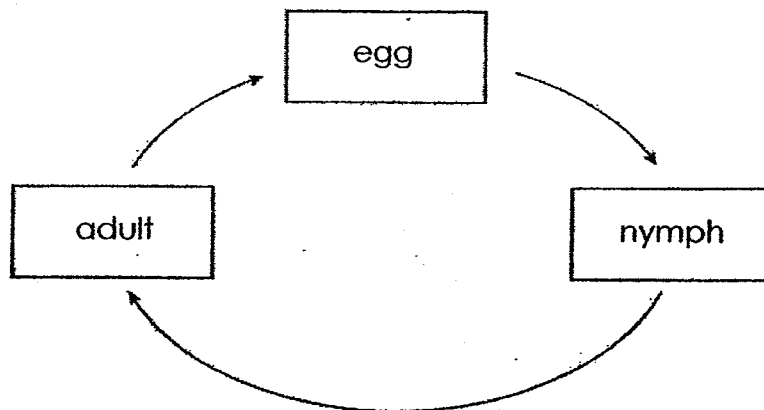
For each question, choose the most suitable answer and shade its corresponding oval (1, 2, 3 or 4) on the optical answer sheet.

1. Which one of the following properties is true of the water and air shown below?



- (1) They take up space.
- (2) They cannot be seen.
- (3) They have fixed shapes.
- (4) They do not have fixed volumes.

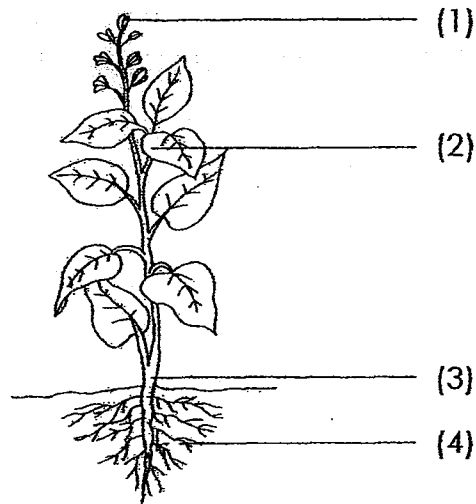
2. The diagram below shows the life cycle of an animal.



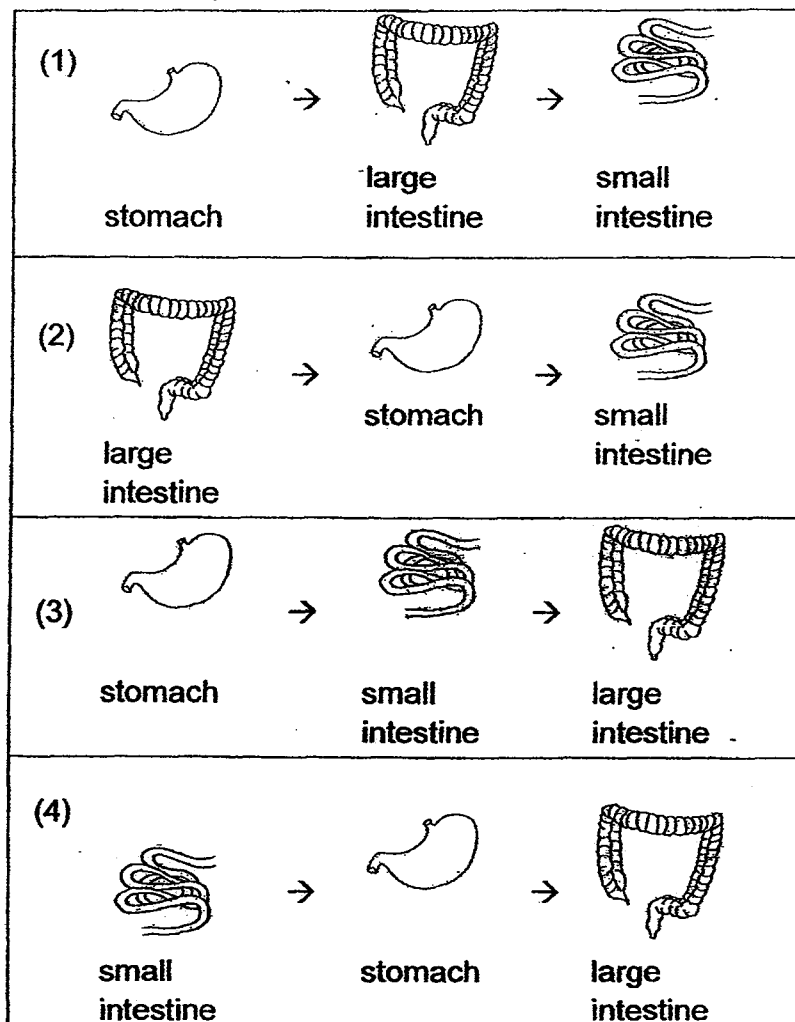
Which one of the following animals is likely to have the life cycle shown above?

- (1) frog
- (2) butterfly
- (3) mosquito
- (4) grasshopper

3. Which part, (1), (2), (3) or (4), helps the plant absorb water?



4. Ali ate a piece of cake. Which one of the following shows the correct path taken by the cake as it moves down his digestive system?



5. Which one of the following is a source of light?

(1)



An apple

(2)



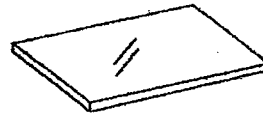
A candle flame

(3)



A cup

(4)



A sheet of glass

6. Which one of the following is NOT a source of heat?

(1) the Sun

(2) a rice cooker

(3) an electric iron

(4) a thermometer

7. Mei Ling boiled some water in the kettle shown below.

plastic handle



She was able to hold onto the plastic handle of the kettle containing boiling water. Her hand was not burnt because plastic is a

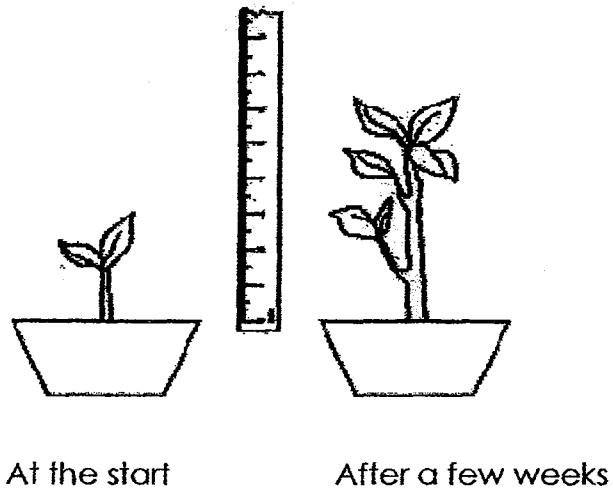
(1) strong material

(2) flexible material

(3) poor conductor of heat

(4) good conductor of heat

8. Ahmad found a specimen in a garden and measured its height. After a few weeks, he measured its height again and found that its height had increased.

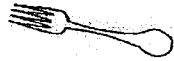


From his observation, Ahmad concluded that the specimen is a living thing because it can _____.

- (1) die
- (2) grow
- (3) breathe
- (4) reproduce

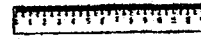
9. Which one of the following objects can be bent easily without breaking?

(1)



Plastic fork

(2)



Wooden ruler

(3)



Ceramic vase

(4)

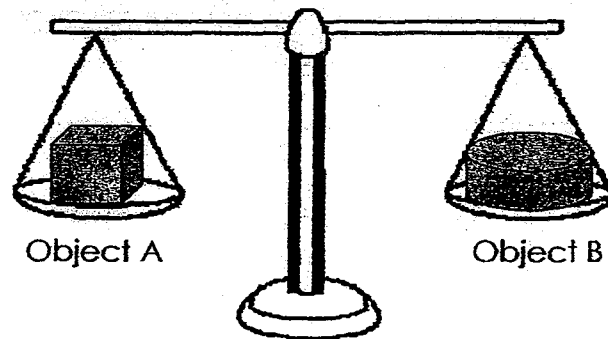


Rubber gloves

10. Which one of the following can be attracted by a magnet?

- (1) steel spoon
- (2) plastic spoon
- (3) ceramic spoon
- (4) wooden spoon

11. Raju placed Object A and Object B of different materials and sizes on a lever balance. He saw that the objects were balanced as shown below.

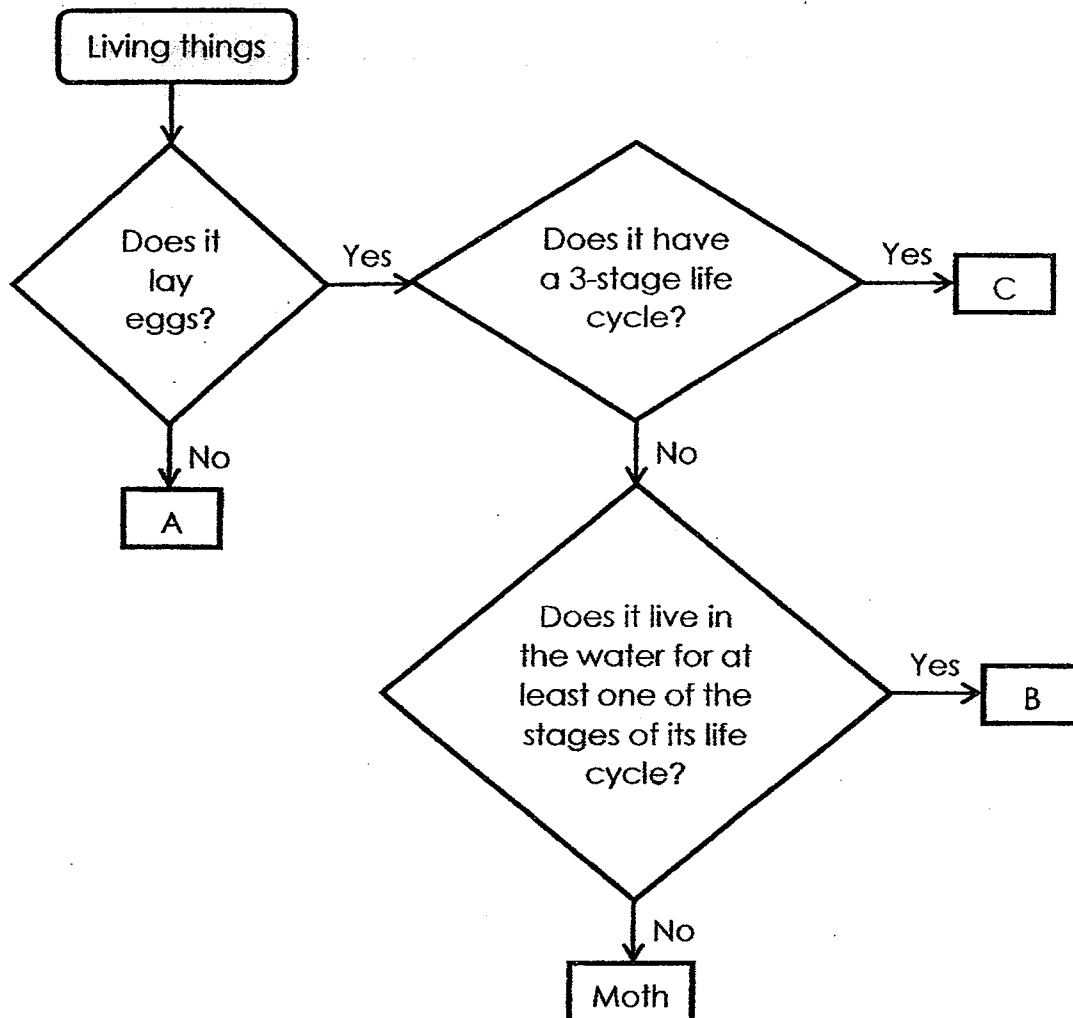


Based on the above observation, Object A and Object B have

_____.

- (1) similar mass
- (2) similar volume
- (3) definite shape
- (4) definite volume

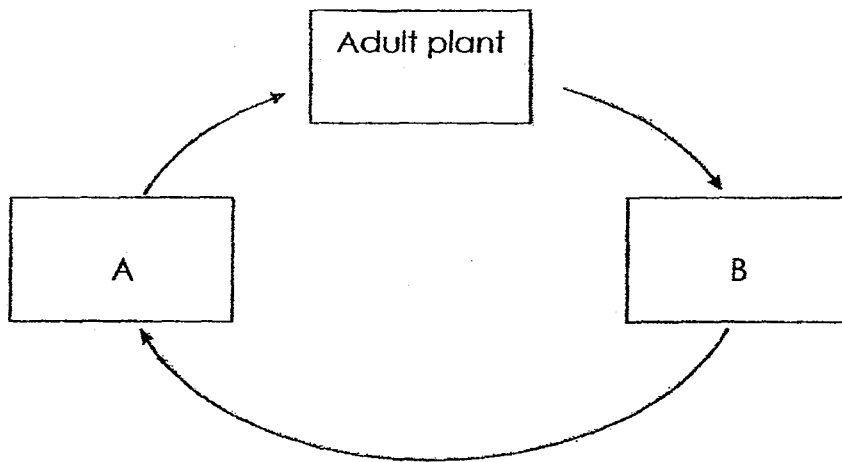
12. Study the flow chart below. A, B and C are living things.



Based on the information given in the flowchart, which one of the following correctly represents animals A, B and C?

	A	B	C
(1)	frog	cockroach	mosquito
(2)	human	mosquito	cockroach
(3)	cockroach	frog	human
(4)	human	cockroach	frog

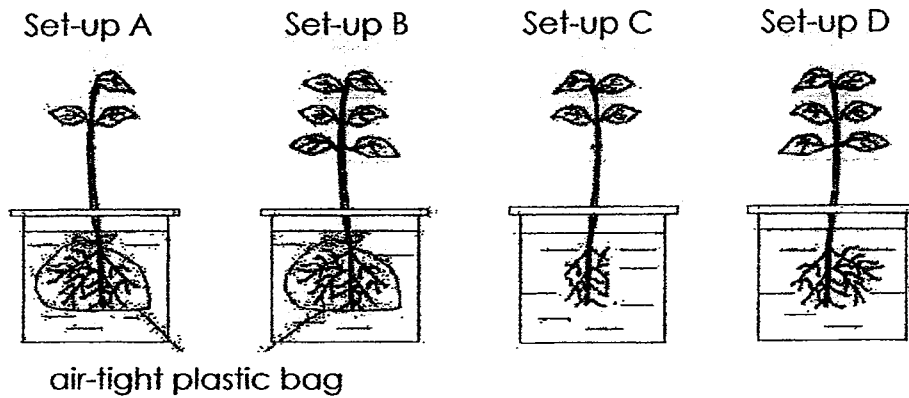
13. The diagram below shows the life cycle of a living thing.



Which of the following correctly represent A and B shown above?

	A	B
(1)	Nymph	Egg
(2)	Young plant	Seed
(3)	Seed	Young plant
(4)	Egg	Nymph

14. Lisa wants to find out if plants take in water through their roots.



Identical beakers with similar amount of water are used for all the set-ups. The roots of the plants in set-up A and set-up B are tied with air-tight plastic bags.

Which of the two set-ups above should she choose to conduct a fair test?

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

15. Which organ does **not** match its function in the table below?

	Organ	Function
(1)	Mouth	Breaks food up into small pieces and digests it
(2)	Stomach	Mixes food with digestive juices
(3)	Gullet	Moves food down into the stomach
(4)	Large intestine	Absorbs food into the blood

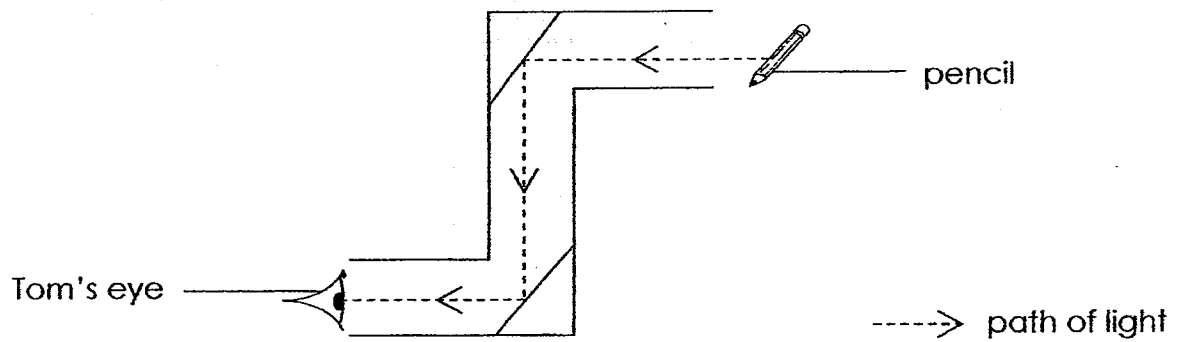
16. Study the functions of the three human body systems (A, B and C) given below.

System A	System B	System C
Transports food to different parts of the body.	Protects some of our organs.	Responsible for absorption of food.

Which of the following correctly states the systems described above?

	System A	System B	System C
(1)	Skeletal System	Digestive System	Circulatory System
(2)	Circulatory System	Skeletal System	Digestive System
(3)	Digestive System	Circulatory System	Skeletal System
(4)	Circulatory System	Digestive System	Skeletal System

17. The picture below shows how Tom can see a pencil through a periscope.



Which of the following explains why the image of the pencil can be seen by Tom?

- A: Light rays can be reflected
- B: Light travels in a straight line.
- C: The pencil is a source of light.
- D: Mirrors are used in the periscope.

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

18. In a dark room, Jimmy used a torchlight to cast a shadow of the mug below. He changes the position of the mug several times.



Ceramic mug

Which are the possible shadows cast by the ceramic mug?



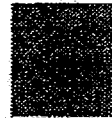
A



B



C



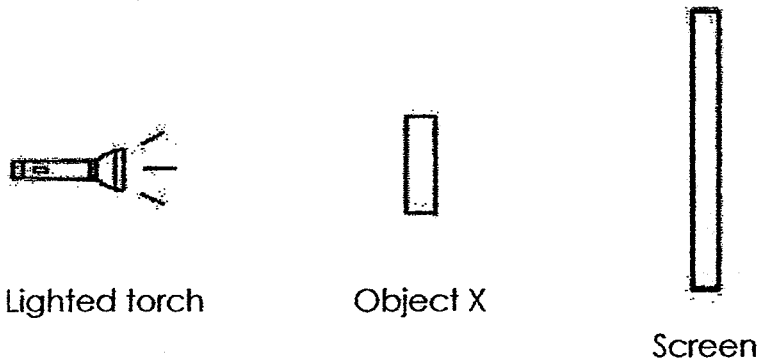
D



E

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

19. Ryan carried out an experiment in a dark room using the set-up shown below.

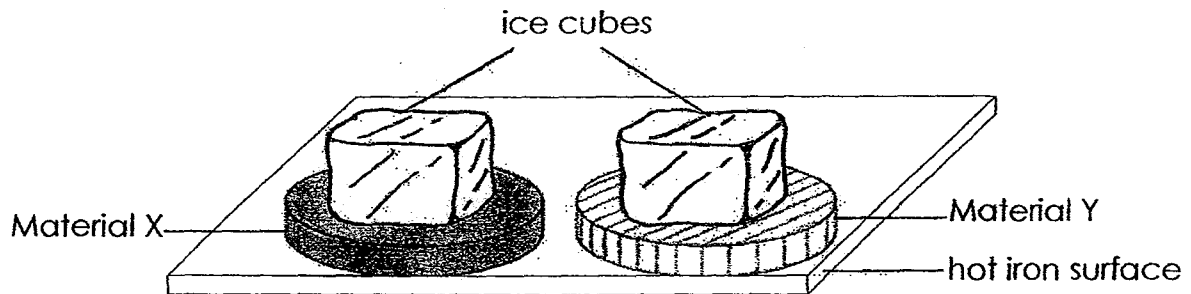


When he switched on the torch, Ryan did not see a shadow of Object X on the screen.

Based on the experiment above, Object X is _____.

- (1) a mirror
- (2) opaque
- (3) transparent
- (4) translucent

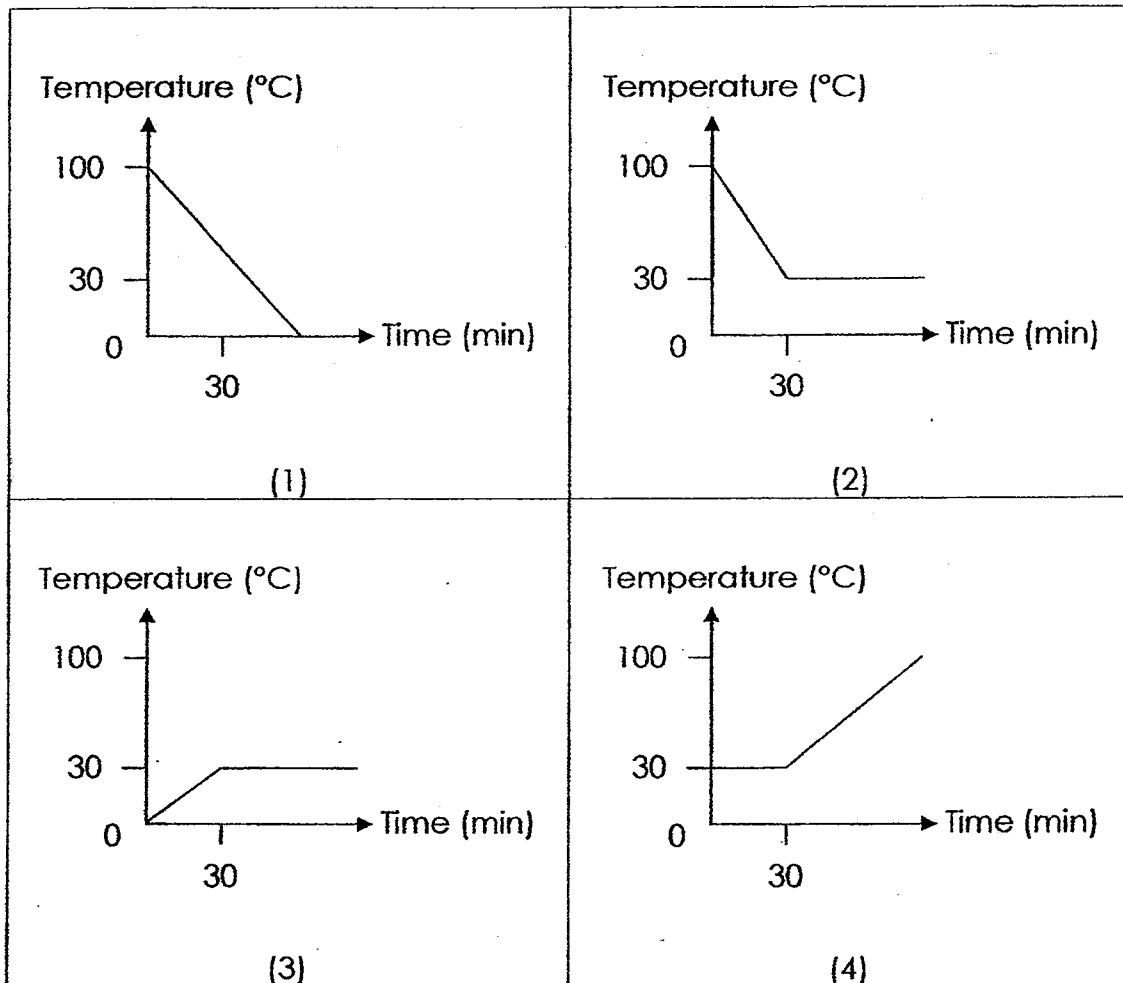
20. Muthu placed similar ice cubes on Materials X and Material Y as shown in the diagram below. Both materials were then placed on a hot iron surface at the same time.



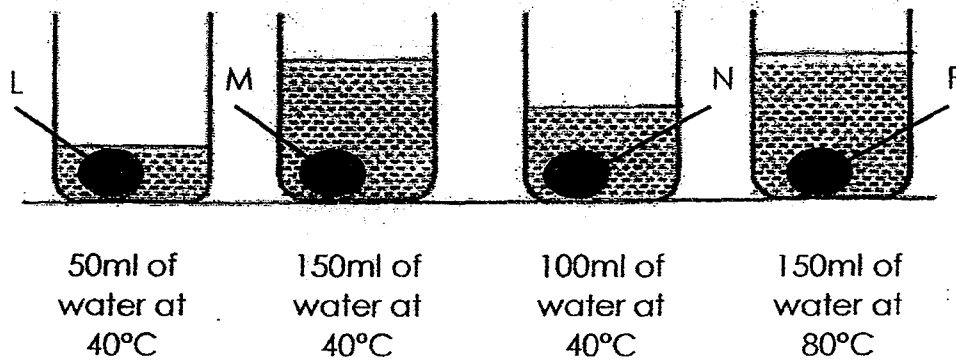
The ice cube on material X took 10 minutes to melt completely but the ice cube on material Y took 25 minutes to melt completely. This is because _____.

- (1) Material X conducted heat faster than Material Y.
- (2) Material Y is a better conductor of heat than Material X.
- (3) The ice cube on Material Y lost heat faster to the surrounding.
- (4) The ice cube on Material X gained heat faster from the surrounding.

21. Kitty placed a thermometer into a beaker of boiling water. She then allowed the beaker of water to cool down in a room. The water reached room temperature after 30 minutes. Which one of the following graphs best shows Kitty's findings?



22. 4 similar eggs, L, M, N and P, were each dropped into 4 similar beakers at the same time as shown in the diagram below.

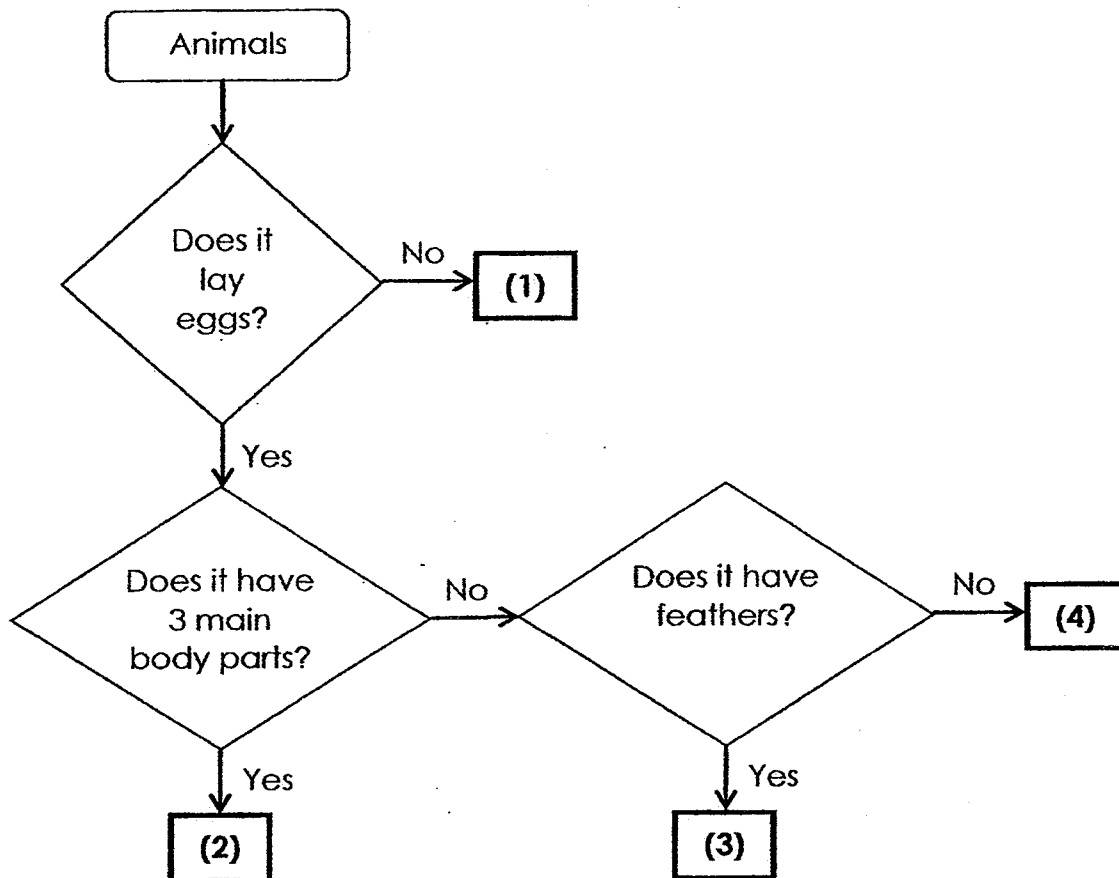


They were left in the beakers for 3 minutes. Then the eggs were taken out and cracked.

Which one of the following shows the correct order of the eggs starting from the most cooked to the least cooked?

- (1) P, N, M, L
- (2) L, N, M, P
- (3) P, M, N, L
- (4) L, M, N, P

23. Study the flowchart on animals below carefully. Which one of the following represents 'reptiles'?



24. Some objects have been classified into Group A and Group B according to the similarity in their properties.

Group A	Group B
Glass mirror Ceramic plate Metal spoon	Styrofoam cup Ping pong ball Plastic bag

What can be used to describe the properties of the objects in Group A and Group B?

	Group A	Group B
(1)	not strong	strong
(2)	absorbs water	waterproof
(3)	sinks in water	Floats on water
(4)	flexible	stiff

25. Mei Ling found three objects, A, B and C. She wanted to test if they were magnets. She placed a magnet next to each of the objects and recorded her observations below.



Objects	A	B	C
Observations	No reaction.	One end was attracted. The other end was repelled.	Both ends were attracted.

Which one of the following are most likely the objects, A, B and C?

	Object A	Object B	Object C
(1)	Wooden ruler	Steel spoon	Magnet
(2)	Magnet	Steel spoon	Wooden ruler
(3)	Steel spoon	Magnet	Wooden ruler
(4)	Wooden ruler	Magnet	Steel spoon

End of Booklet A



PRIMARY 4 END-OF-YEAR EXAMINATION 2015

Name : _____

Date: 30 October 2015

Class : Primary 4 (

Time: 7.50 a.m. - 9.15 a.m.

Duration : 1h 25 min

Parent's Signature : _____

Marks: _____ **30**

SCIENCE BOOKLET B

INSTRUCTIONS TO CANDIDATES

Write your name, register number and class.

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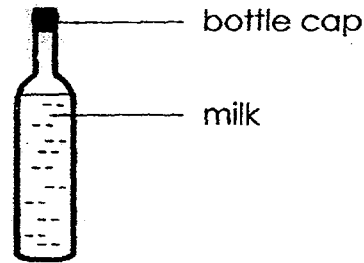
Follow all instructions carefully.

Answer all questions.

Section B (30 marks)

Write your answers in the spaces provided.

26. The diagram below shows a bottle of milk.

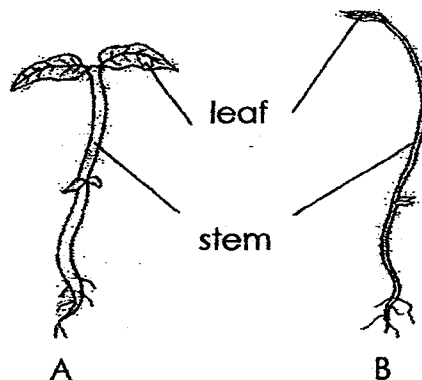


Complete the sentences about the bottle of milk with the helping words, "solid", "liquid" or "gas".

a) The bottle cap is a _____ [1]

b) The milk is a _____ [1]

27. Study the diagram below.

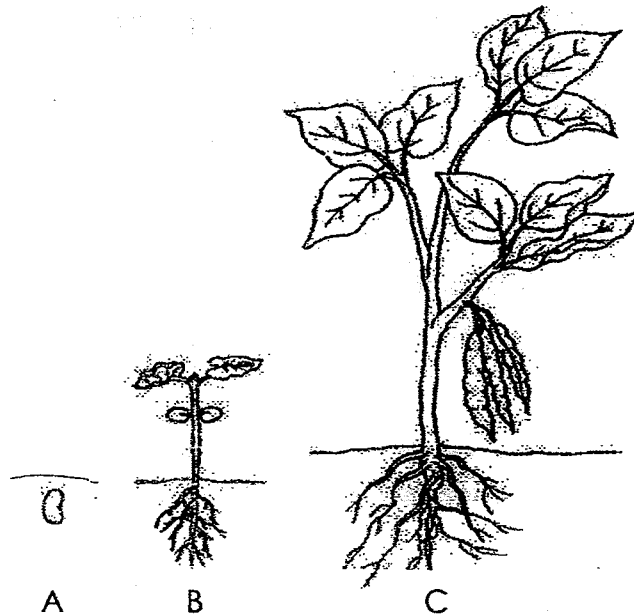


a) What is one difference between the stem of the plant, A and the stem of the plant, B?

The stem of plant A is _____ than the stem of plant B. [1]

b) The leaves help both plants above to make _____ [1]

28. The diagram below shows three different stages, A, B and C, in the life cycle of a plant.



Choose the correct words from the box to answer the question below about the life cycle of the plant above.

egg seed young plant adult plant

Identify the stages, A and C, in the life cycle of the plant.

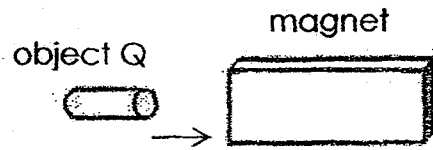
A _____ [1]

C _____ [1]

29. Complete the table with the names of the broad groups of living things based on their characteristics. [2]

Group of living things	Characteristics
	Body covering of dry skin, with scales
	Give birth to its young alive

30. Bobby placed a magnet near an Object Q as shown below.



Object Q then moved towards the magnet.

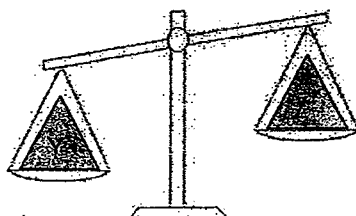
a) Bobby concluded that the magnet exerts a _____ on Object Q. [1]

b) Choose the correct word from the box to answer the question below about Object Q. [1]

flexible	magnetic	strong
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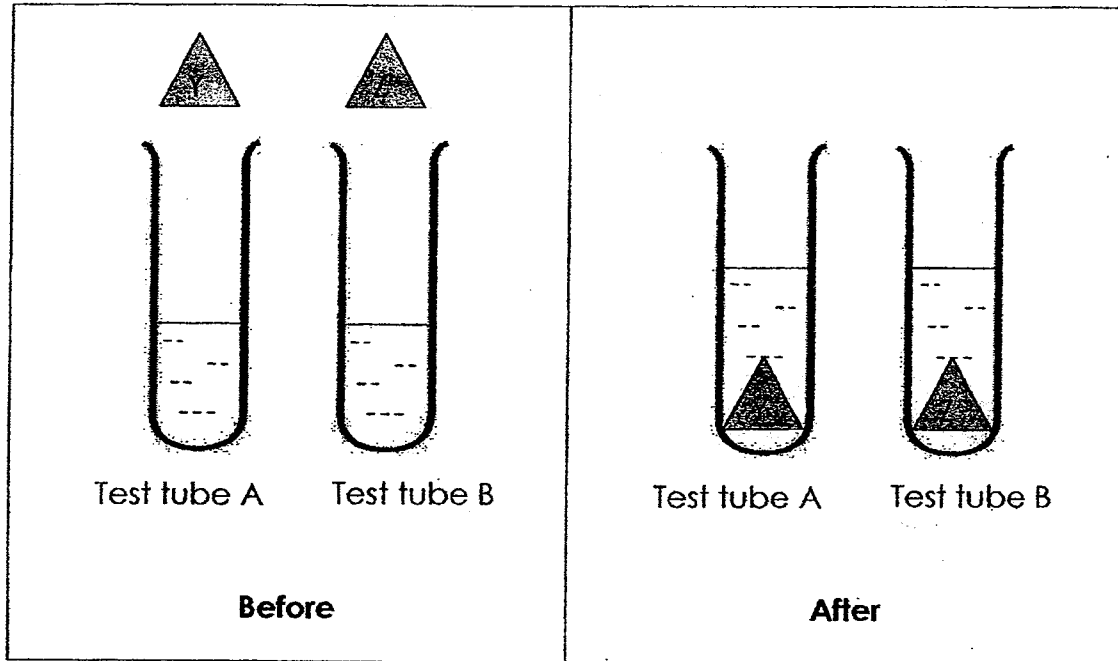
Bobby's observation shows that Object Q is made of a _____ material.

31. Ali placed the objects, Y and Z, on a weighing scale and obtained the result below.



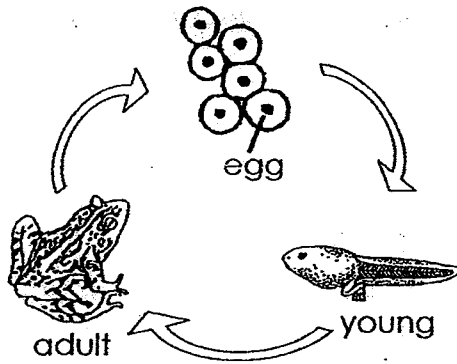
- (a) From the diagram above, what could Ali conclude about the difference in mass of the objects, Y and Z? [1]

- (b) Ali then dropped the objects, Y and Z, into the test tubes, A and B, respectively, each containing the same amount of water, as shown below.

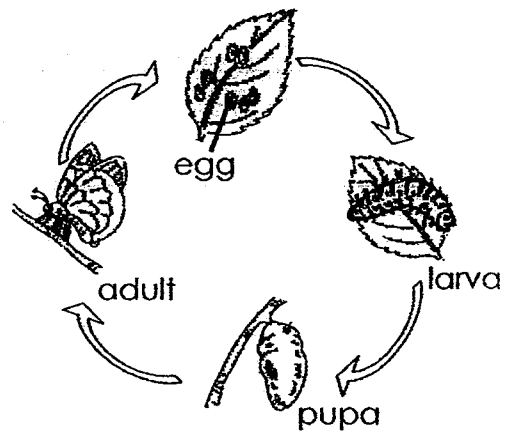


From the diagrams above, what could Ali conclude about the volumes of the objects, Y and Z? [1]

32. The diagrams below show the life cycles of Animal J and Animal K.



Life cycle of Animal J

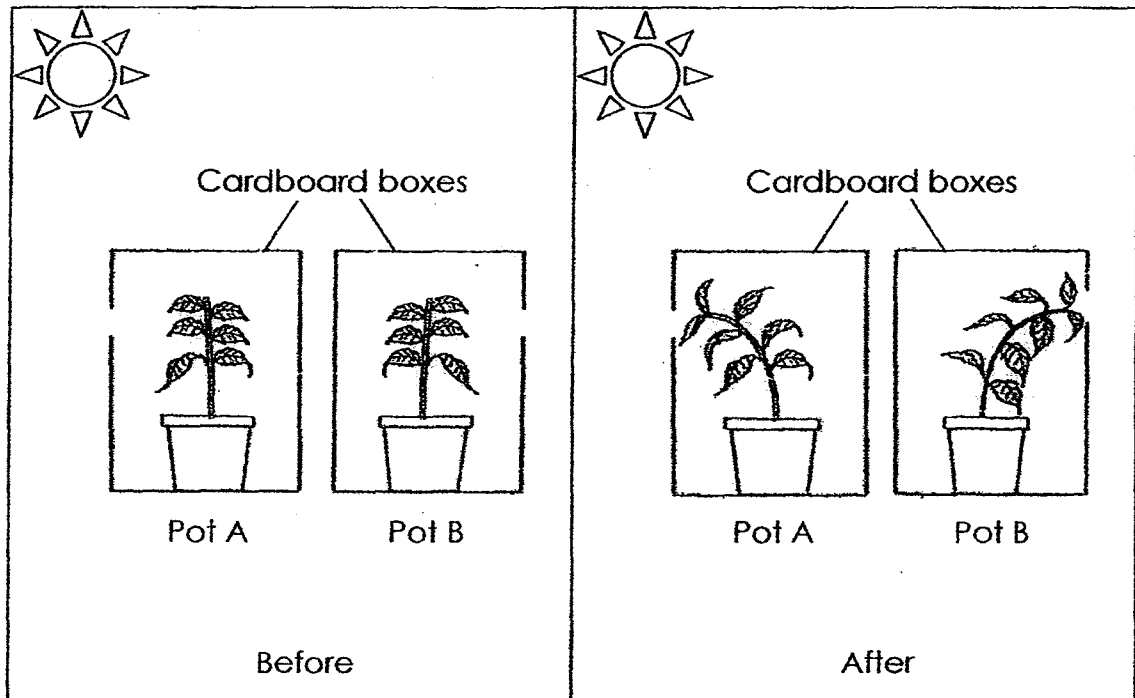


Life cycle of Animal K

(a) Based on the diagrams above, state two similarities between the life cycles of Animal J and Animal K. [2]

(b) Based on the diagrams above, state one difference between the life cycles of Animals J and Animal K. [1]

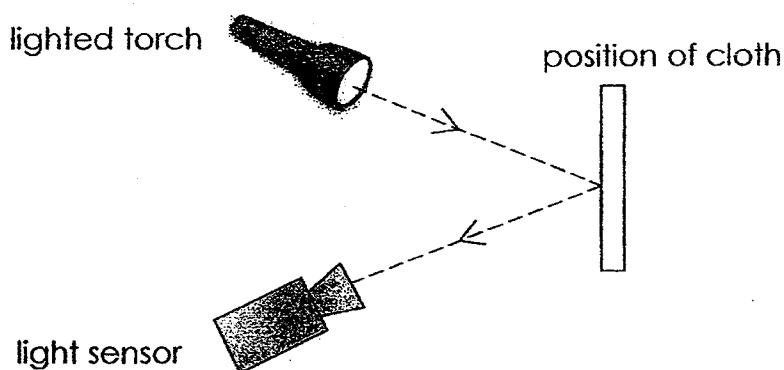
33. Adam conducted an experiment with two potted plants, A and B. He placed one pot of plant each in a cardboard box with an opening on one side of the box. He watered the plants daily. The diagrams show the plants at the start of the experiment and what happened to them after a week.



- (a) Explain why the plants grew towards the openings. [2]

- (b) Explain why it was important for him to use cardboard boxes and not clear plastic boxes in his experiment. [1]

34. Hilary set up an experiment as shown below. The light sensor was used to measure the amount of light that was reflected by 3 different types of cloth, P, Q and R.



The result of the experiment is shown below.

Cloth	P	Q	R
Amount of light (units of light)	40	99	5

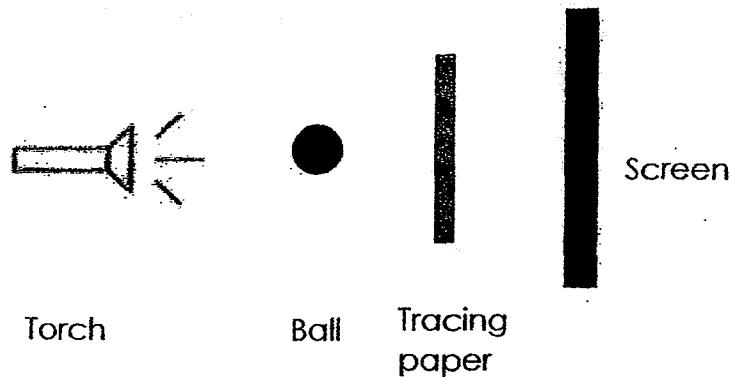
- (a) Which cloth reflected the least amount of light?

[1]

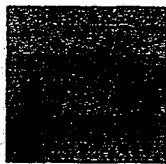
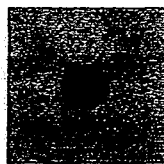
- (b) Which cloth is best for making a safety vest to be worn by a cyclist on the road in the night? Explain your answer.

[2]

35. Ahmad shone a torch at a round rubber ball and a piece of square tracing paper as shown below.



- a) How would the shadow look like on the screen? Tick (✓) the correct box below. [1]


☐

☐

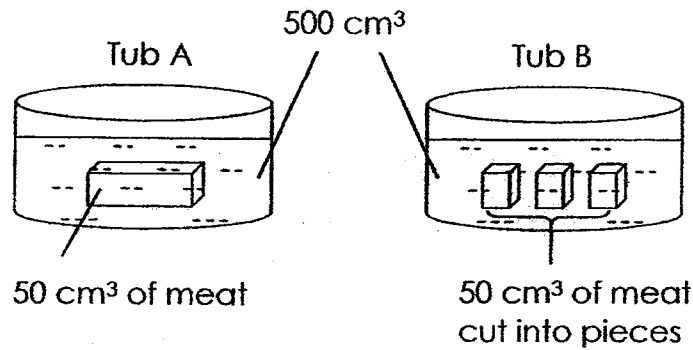
☐

Ahmad then removed the tracing paper and moved the ball closer to the screen.

- b) Describe a change in the shadow of the ball when the ball is moved closer to the screen. [1]

- c) State a property of light that made the experiment above possible. [1]

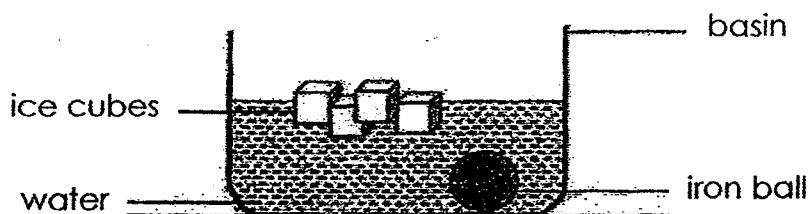
36. Laura placed some meat in Tub A and Tub B as shown below. She filled both tubs with 500 cm³ of digestive juice.



- a) Meat in Tub B was digested faster. Explain why this is so. [2]

- b) A mother would usually cut her baby's food into smaller pieces.
Which part in our mouth helps us to cut our food into smaller pieces? [1]

37. Mr Samy poured some water that was heated to 40°C into a basin at room temperature as shown below. Then, he dropped a few ice cubes into it. After about 10 minutes, he dropped an iron ball that was heated to 85°C into the basin.



- a) Describe what happened to the temperature of the water after the iron ball was dropped into it. [1]

- b) During the experiment, all the matter in the set-up either gained or lost heat. Study the table below and tick (✓) the appropriate boxes to indicate whether heat was gained or lost by them. [2]

	Matter	Gained heat	Lost heat
(i)	Basin (after the water was poured in)		
(ii)	Ice cubes (after they were dropped into the basin of water)		
(iii)	Water (after the iron ball was dropped in)		
(iv)	Iron ball (after it was dropped into the basin of water)		

EXAM PAPER 2015

LEVEL : PRIMARY 4

SCHOOL : TAO NAN SCHOOL

SUBJECT : SCIENCE

TERM : SA2

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	4	4	3	2	4	3	2	4	1
Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
1	2	2	4	4	2	3	3	3	1
Q21	Q22	Q23	Q24	Q25					
2	3	4	3	4					

Q26a. solid

Q26b. liquid

Q27a. thicker

Q27b. food

Q28. A: Seed

Q28. C : Adult plant

Q29. Reptile

Q29. Mammal

Q30a. force

Q30b. magnetic

Q31a. He can conclude that object Y have a larger mass than object Z.

Q31b. He can conclude that both object Y and Z have the same volume.

Q32a. Both animals lay eggs and the young does not look like the adult.

Q32b. Animal J has three stages in its life cycle while animal K has four stages in its life cycle.

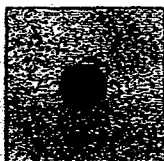
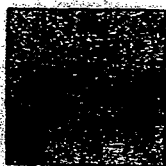
Q33a. As plant need light to make food, it will grow towards the hole as the cardboard boxes does not allow light to pass through.

Q33b. Cardboard is opaque and clear plastic is transparent.

Q34a. Cloth R reflected the least amount of light.

Q34b. Cloth Q. As cloth Q reflects the most light, when at night, it will reflect light and a car driver would be able to see him.

Q35a. SEE PICTURE



Q35b The dark round shadow would become smaller.

Q35c. Light travels in a straight line.

Q36a. As the meat in tub B has a larger surface area exposed to the digestive juices, so digestion is faster. Q36b. The teeth.

Q37a. The temperature would increase.

Q37b. (i) gained heat

Q37b. (ii) gained heat

Q37b (iii) gained heat

Q37b (iv) lost heat

THE END