

RIVER VALLEY PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 / 2017
PRIMARY 4

SCIENCE

(BOOKLET A)

Name : _____ ()

Date : 31 Oct 2017

Class : P4 _____

Total Time for Booklet A & Booklet B : 1 hour 30 min

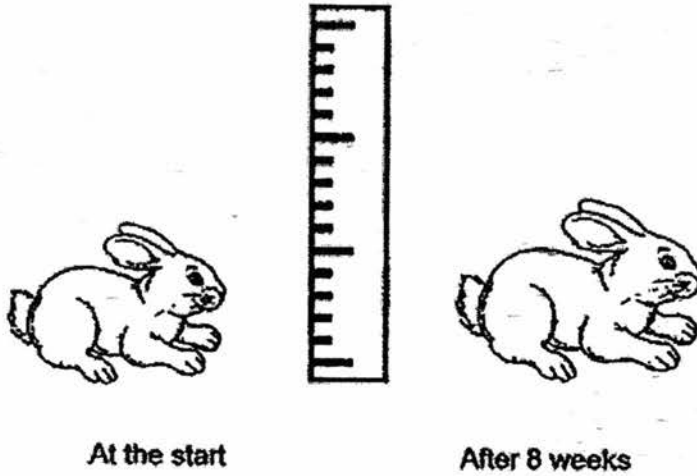
INSTRUCTIONS TO CANDIDATES

1. Write your name, index number and class in the space above.
2. Do not turn over this page until you are told to do so. Follow all instructions carefully.
3. Answer all questions.
4. For Section A, shade your answers for questions 1 to 24 in the Optical Answer Sheet (OAS).
5. For Section B, write your answers for questions 25 to 34 in the space provided in Booklet B.
6. The total marks for Booklet A is 48 marks.

Section A (48 marks)

For each question 1 to 24, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

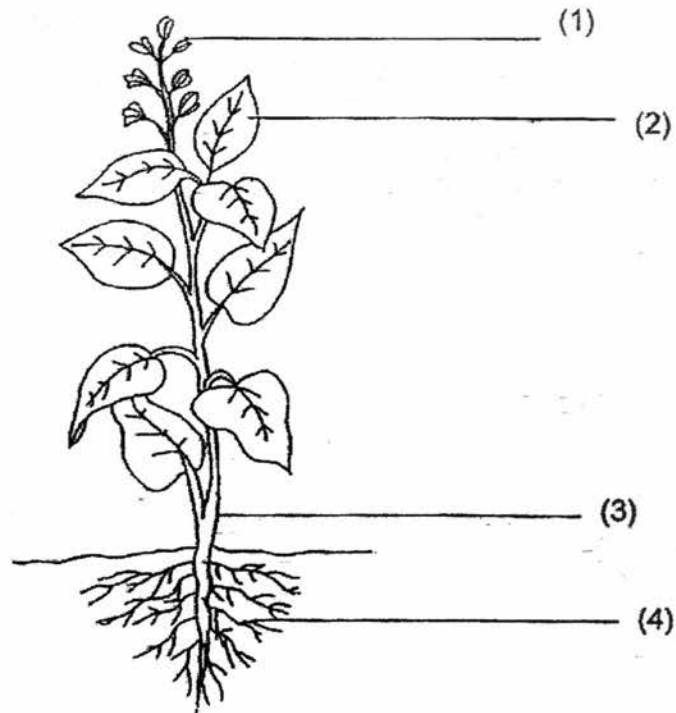
1. Sarah found a rabbit in the garden and measured its height.
After eight weeks, she measured its height again.



From her observation, Sarah concluded that the rabbit is a living thing because it can

- _____.
- (1) move
 - (2) grow
 - (3) respond
 - (4) reproduce

Which part, (1), (2), (3) or (4), holds the plant firmly to the ground?



In which part of the digestive system are water and mineral salts absorbed by the body?

(1) mouth

(2) stomach

(3) small intestine

(4) large intestine

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

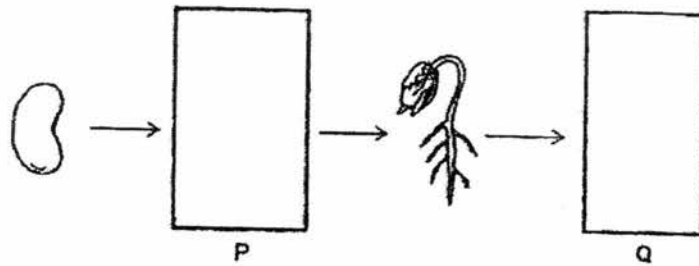
(1) iron plate

(2) Glass plate

(3) Styrofoam plate

(4) Aluminium plate

5. The diagram below shows the growth of a young plant with two missing stages P and Q.



Which one of the following shows the correct stages for P and Q?

	P	Q
(1)		
(2)		
(3)		
(4)		

6. A, B, C and D are the various stages in the life cycle of a mosquito.



A



B



C



D

Which of the following correctly shows the life cycle of a mosquito?

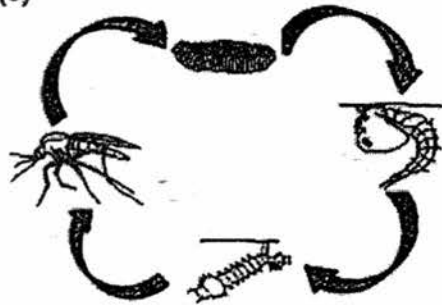
(1)



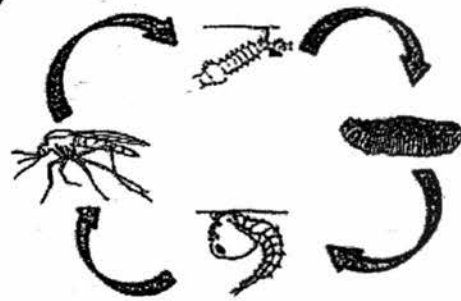
(2)



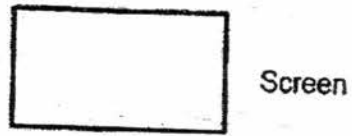
(3)



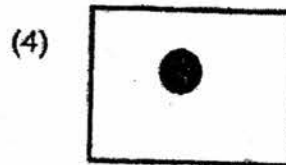
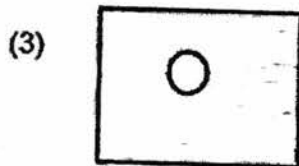
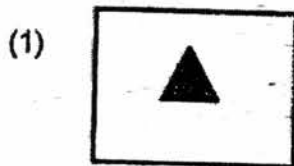
(4)



7. The set-up below shows light shining on a wooden toy.



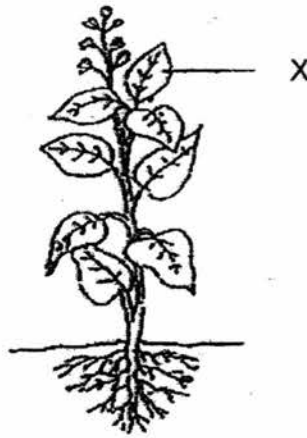
Which one of the following would likely be seen on the screen?



8. Which one of the following properties is true for both air and orange juice?

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

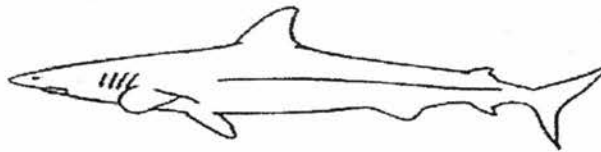
9. Look at the diagram of a plant below. Which of the following are likely to happen if all of part X are removed?



A	The plant will not be able to obtain sunlight.
B	The plant will not be able to make any food.
C	The plant will not be able to take in water.

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

10. The diagrams below show animals P and Q.



Animal P



Animal Q

Study the table below.

Animal P	Animal Q
Looks for other small fishes	Looks for sweet fruits on tall trees

Based on the information above, which one of the following explains the difference between Animal P and Animal Q correctly?

- (1) Where they live
 - (2) How they breathe
 - (3) The food they eat
 - (4) Type of body covering
11. Which of the following are characteristics of mammals?
- A. Mammals have hair.
 - B. Mammals cannot fly.
 - C. Mammals live on land only.
 - D. The young feed on their mother's milk.
- (1) A and B only
 - (2) A and D only
 - (3) B and C only
 - (4) B and D only

12. Which of the following statements about the small intestine is false?
- (1) Excess water is stored in the small intestine.
 - (2) Digestion is completed in the small intestine.
 - (3) Digested food enters the blood vessels in the small intestine.
 - (4) More digestive juices are added in the small intestine to break down food.
13. The following table shows some information on three groups of living things D, E and F.
- A tick (✓) shows that the living thing has that characteristic(s).
- A cross (×) shows that the living thing does not have the characteristic(s).

Characteristics	Living Things		
	D	E	F
Make its own food	×	✓	×
Reproduce by spores	✓	×	×
Needs air, food and water	✓	✓	✓

Which groups of living things do D, E and F belong to?

	D	E	F
(1)	plants	animals	fungi
(2)	fungi	animals	plants
(3)	animals	plants	fungi
(4)	fungi	plants	animals

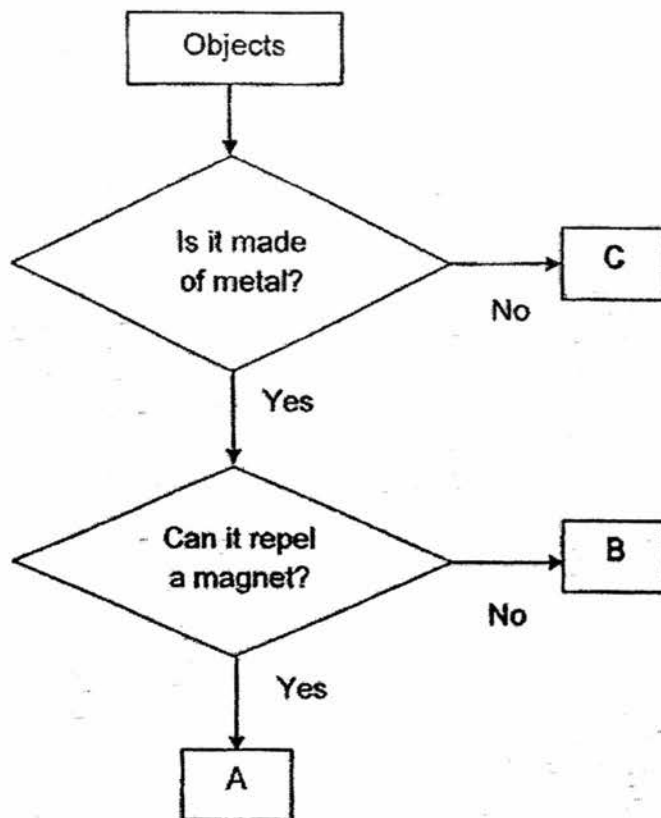
14. Study the table shown below. The table shows the characteristics of the following things L, M and N.

Things	Needs Air	Needs Sunlight	Can Move From One Place to Another On its Own
L	✓		✓
M			✓
N	✓	✓	

Based on the information given, which of the following statements are true about L, M and N?

- A: L is an animal.
 - B: M will grow and die.
 - C: L and N are living things.
 - D: N will not respond to changes.
-
- (1) A and C only
 - (2) B and C only
 - (3) A, B and C only
 - (4) A, C and D only

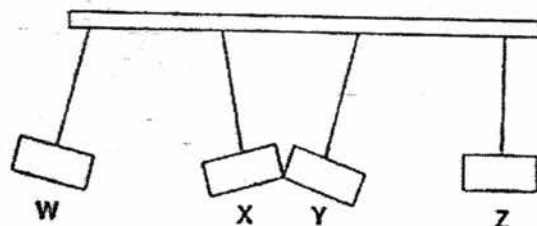
15. The flow chart below shows the characteristics of 3 different objects.



Which one of the following best represents A, B and C?

	A	B	C
(1)	gold chain	magnet	cotton cloth
(2)	magnet	gold chain	steel spoon
(3)	magnet	nickel coin	glass cup
(4)	gold chain	glass cup	nickel coin

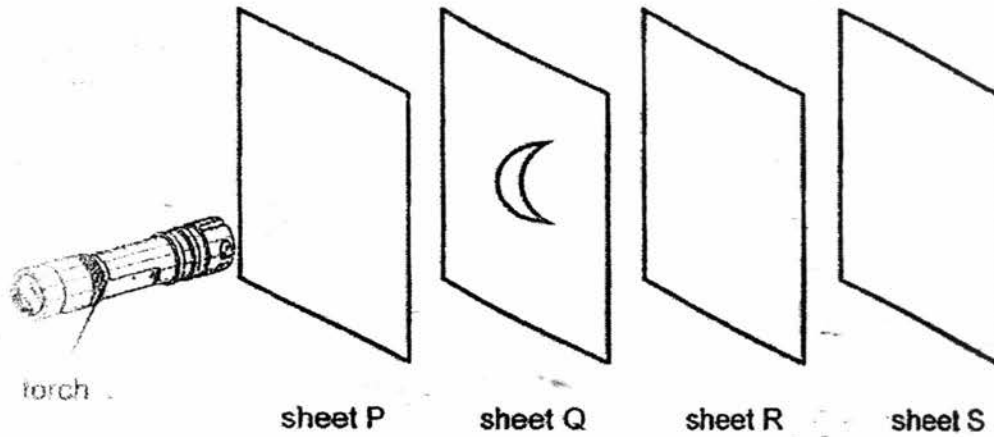
16. Four metal bars W, X, Y and Z were hung from a rod. The metal bars moved in different directions as shown.



If only two of the metal bars are magnets, which metal bars, W, X, Y or Z are **most likely** to be magnets?

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

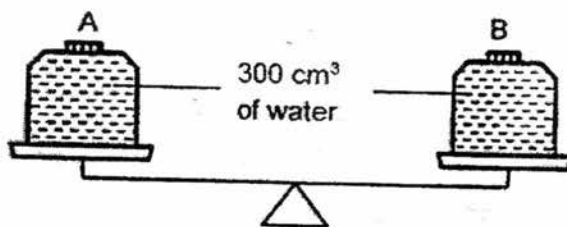
Nichollette carried out an experiment in a dark room. The sheets P, Q, R and S are arranged in a straight line. Sheet Q has a shape cut out from its centre.



When the torch was switched on, a bright moon-shaped patch of light could be seen on sheet R. Which of the following correctly describes the properties of the materials used to make sheets P, Q, R and S?

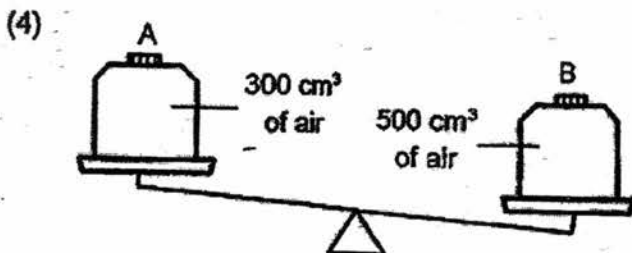
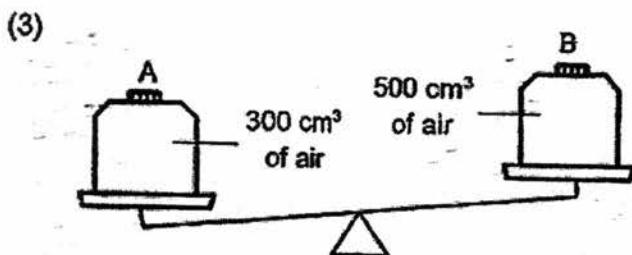
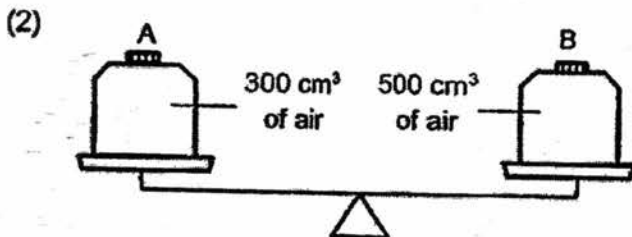
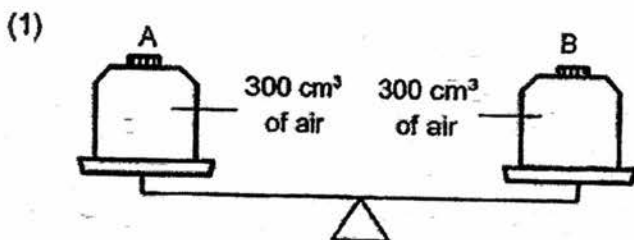
	does not allow light to pass through	allows light to pass through	not possible to tell
(1)	R	P and S	Q
(2)	P and S	R	Q
(3)	Q and R	P	S
(4)	R	P and Q	S

18. Jamil placed two identical containers filled with 300 cm^3 of water, A and B, a balance as shown in the diagram below.

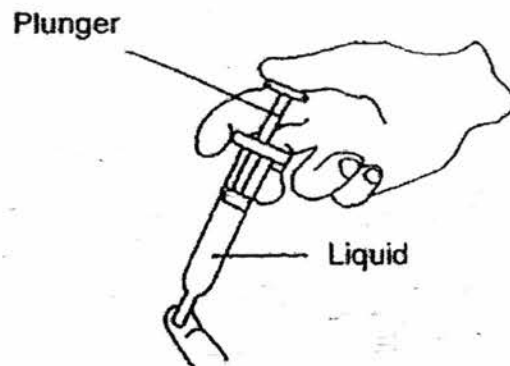


Jamil poured away all the water in both containers and then pumped 300 cm^3 of air into A and 500 cm^3 of air into B.

Which of the following shows the correct observation after the air is pumped into the containers?



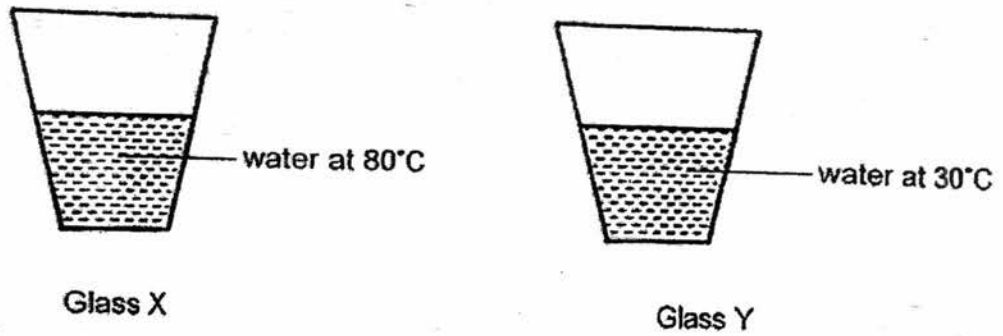
19. A syringe with liquid inside is pushed as shown in the figure below. The plunger did not move at all.



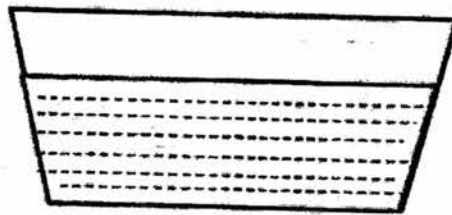
What properties of liquids did the experiment show?

- A: Liquids have a fixed volume.
 - B: Liquids cannot be compressed.
 - C: Liquid do not take up the shape of the syringe.
 - D: Liquids have a definite volume but no definite shape.
- (1) A and B only
(2) B and C only
(3) C and D only
(4) A, C and D only

20. Mabel has two glasses of water, X and Y, of the same volume.



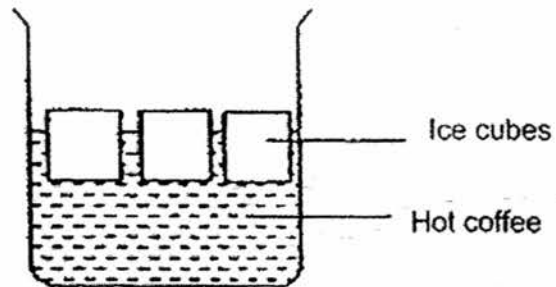
She poured all the water from both glasses into a large container as shown below.



What would most likely be the new temperature of the water in the large container?

- (1) 18°C
- (2) 52°C
- (3) 84 °C
- (4) 91°C

21. Some ice cubes were dropped into a beaker of hot coffee.

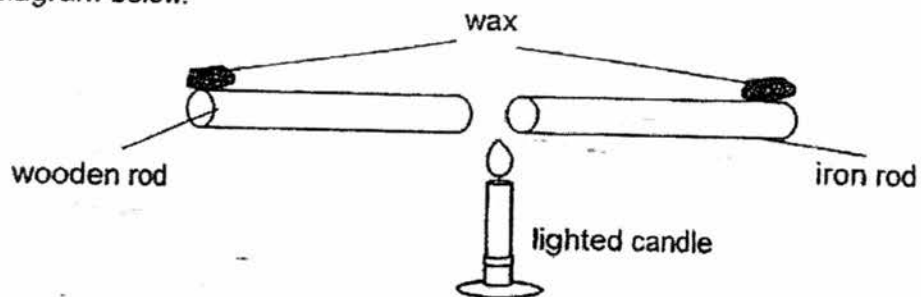


Which of the following changes will most likely take place?

- A: The ice cubes gain heat.
- B: The hot coffee loses heat.
- C: The ice cubes change state.
- D: The temperature of the coffee remains the same.

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

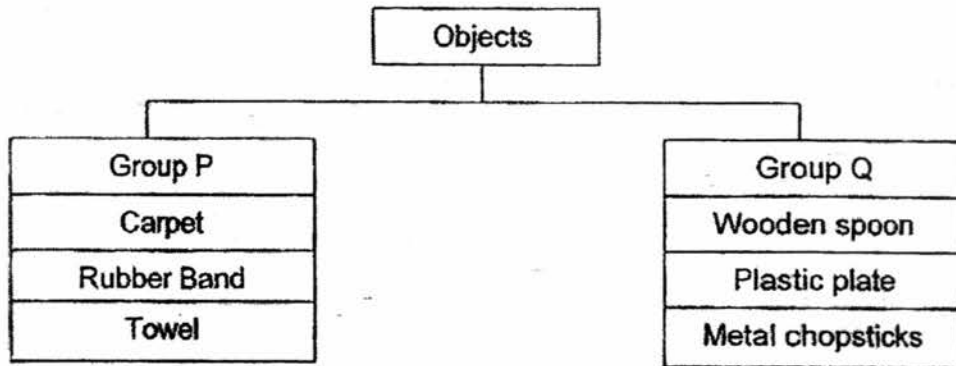
22. Isaac placed a lighted candle in between a wooden rod and an iron rod. The distance between each rod and the lighted candle is the same as shown in the diagram below.



What would happen to the wax on both rods after 15 minutes?

- (1) The wax on both rods will not melt.
- (2) The wax on the iron rod will melt first.
- (3) The wax on the wooden rod will melt first.
- (4) The wax on both rods will melt at the same time.

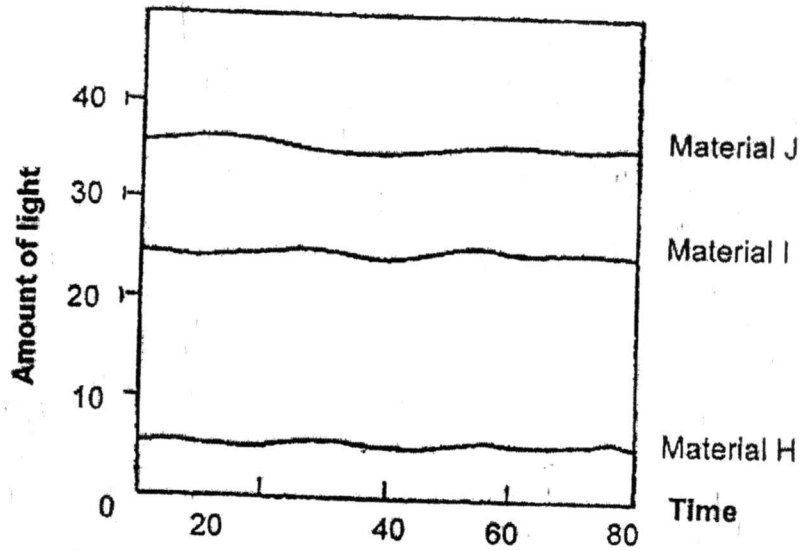
23. The objects below have been grouped based on their characteristics.



Which one of the following is a suitable heading for Group P and Q?

	Group P	Group Q
(1)	Do not allow light to pass through	Allow light to pass through
(2)	Float on water	Sink in water
(3)	Strong	Fragile
(4)	Flexible	Stiff

24. A datalogger was used to measure the amount of light passing through three different materials, H, I, J.



Which of the following is most likely to be Material H, I and J?

	Material H	Material I	Material J
(1)	wooden plank	writing paper	clear glass
(2)	clear glass	paper	wooden plank
(3)	wooden plank	Clear glass	writing paper
(4)	clear glass	wooden plank	opaque plastic

RIVER VALLEY PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 2 / 2017
PRIMARY 4

SCIENCE
(BOOKLET B)

Name _____ ()

Date : 31 Oct 2017

Class P4 _____ Total Time for Booklet A & Booklet B : 1 hour 30 min

INSTRUCTIONS TO CANDIDATES

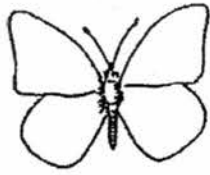
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2. Do not turn over this page until you are told to do so. Follow all instructions carefully.
3. Answer all questions.
4. For Section A, shade your answers for questions 1 to 24 in the Optical Answer Sheet (OAS).
5. For Section B, write your answers for questions 25 to 34 in the space provided in Booklet B.
6. The total marks for Booklet B is 32 marks.

Booklet A		/48
Booklet B		/32
Total		/80
Parent's Signature		

Section B (32 marks)

Write your answers to questions 25 to 34 in the space provided.

25. A, B, C and D are the various stages in the life cycle of a butterfly.



A



B

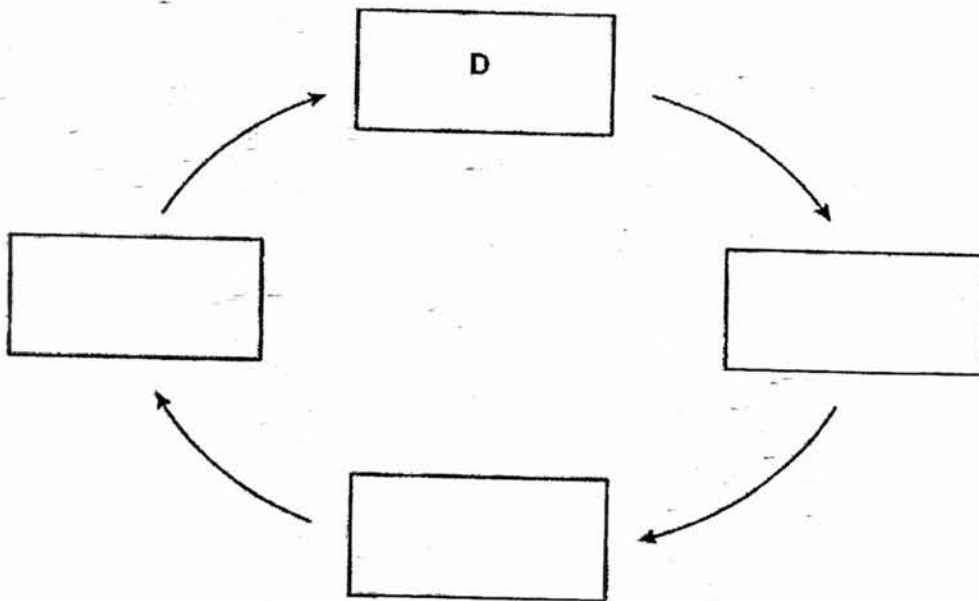


C



D

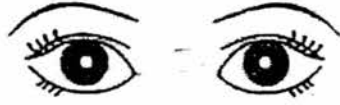
Arrange A, B, C and D in the correct order of the life cycle starting from D. [2]



	2
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26. Look at the pictures. Tick (✓) the sources of light. [2]

Eyes



Lamp



Fire

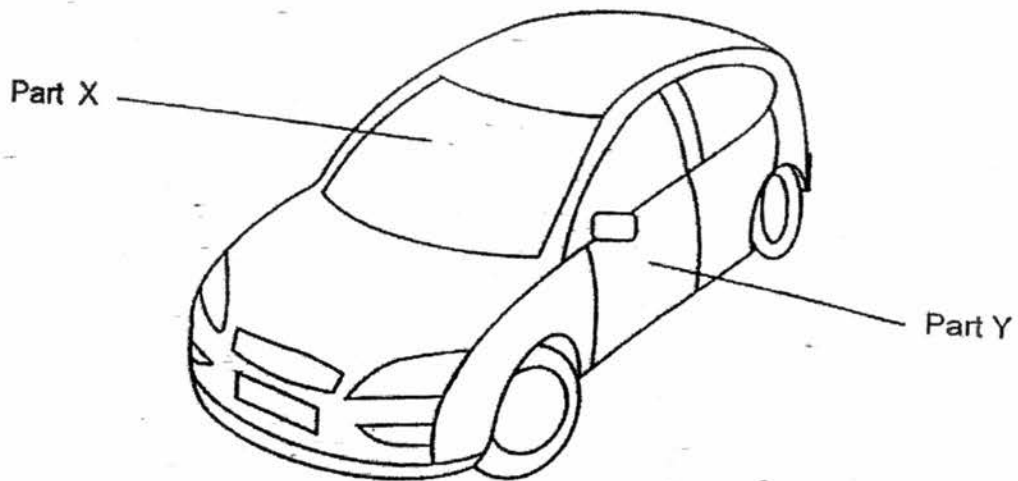


Mirror



	2
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27. The diagram below shows a car.

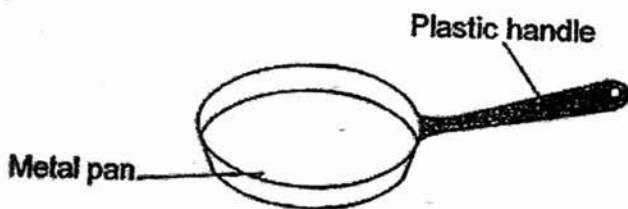


Fill in the blanks with correct words.

(a) Part X is made of glass because it allows _____ to pass through so that the driver can see the road. [1]

(b) Part Y is made of _____ because Y has to be strong. [1]

28. The diagram below shows a frying pan.

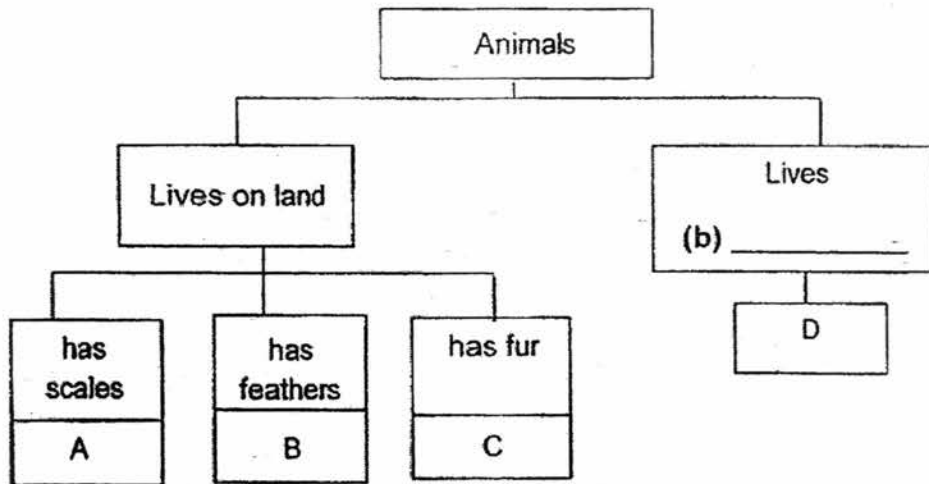


(a) The handle is made of plastic because it is a _____ conductor of heat. [1]

(b) The pan is made of metal because it is a _____ conductor of heat. [1]

	4
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29. Study the classification chart below.



(a) Based on the chart above, state one similarity between animals, A, B and C. [1]

(b) Animal D has scales on its body, swims and lays eggs to reproduce. In the chart, complete the heading that describes where Animal D lives [1]

(c) Name an animal for A and B. [2]

Animal A: _____

Animal B: _____

30. The diagram below shows a hibiscus plant and a bird's nest fern.



hibiscus plant



bird's nest fern

Complete the table below by writing **stem, leaf, flower or root**. [2]

(a)

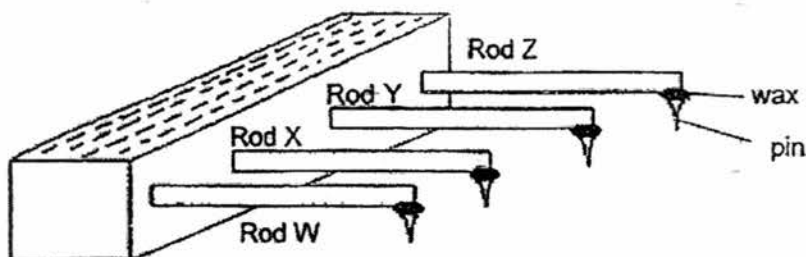
Plant	Function	Plant part
Hibiscus plant	Attracts insects and birds	
Bird's nest fern	Make food	

(c) Based on the diagrams, name one similarity between the hibiscus plant and the bird's nest fern. [1]

(d) Name one difference in the way the hibiscus plant and bird's nest fern reproduce. [1]

	4
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31. Mark conducted an experiment on 4 rods made of different materials W, X, Y and Z. The 4 rods are of the same length and thickness. A pin was stuck to the end of each rod with a drop of wax before boiling water was poured in the container.



Mark recorded the time taken for each pin to fall off the rod below.

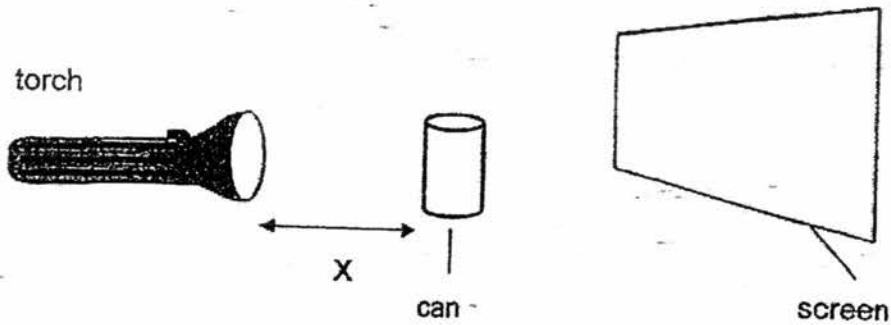
Material of rod	Time taken for pin to fall off the rods (sec)
W	6
X	12
Y	23
Z	17

- (a) Based on the results shown in the table above, which material is the best conductor of heat? Explain your answer. [2]

- (b) Besides keeping the rods of the same length and thickness, name two other variables that should be kept constant. [2]

	4
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32. Jackson conducted an experiment using a torch, a can and a screen as shown below.



He then changed the distance between the torch and the metal can to find out its effects on the shadow formed on the screen. His findings were recorded in the table as shown below.

Distance X (cm)	Height of the shadow formed on the screen (cm)
10	32
20	24
30	16
40	8

(a) Based on the results, what is the relationship between the distance X and the height of the shadow formed on the screen? [1]

(b) If the screen is moved nearer to the can, will the shadow become smaller or bigger? [1]

2	2
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(c) Jackson repeated the experiment using a brighter torch.

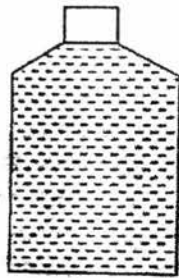
State the aim of the experiment when John used a brighter torch. [1]

(d) When using a brighter torch, he obtained the same results as the first experiment.

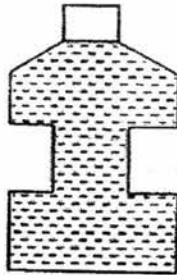
What conclusion can he draw from the second experiment? [1]

	2
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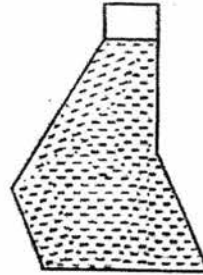
33. Suhaila filled three containers, A, B and C, with water to the brim with the same volume of water.



Container A



Container B



Container C

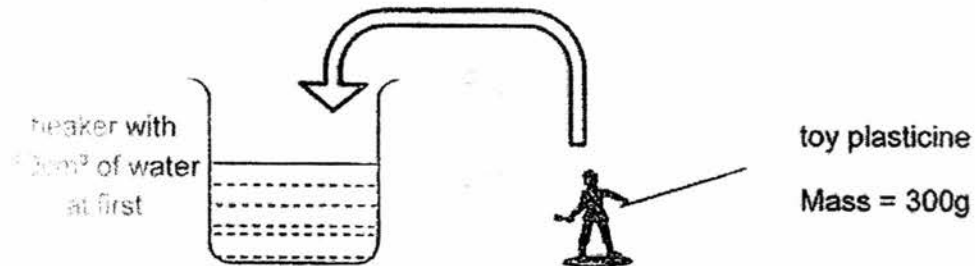
He noted that water takes up space in the containers.

- (a) Besides water taking up space, state another property that is observed. [1]

- (b) When Suhaila tried to add more water into Container A, the container could not hold any more water and overflowed. Based on what he had done, state the property of water. [1]

	2
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19. Suhaila placed a toy plasticine of mass 300g into a beaker of water. The water level rose from 50cm^3 to 60cm^3 .

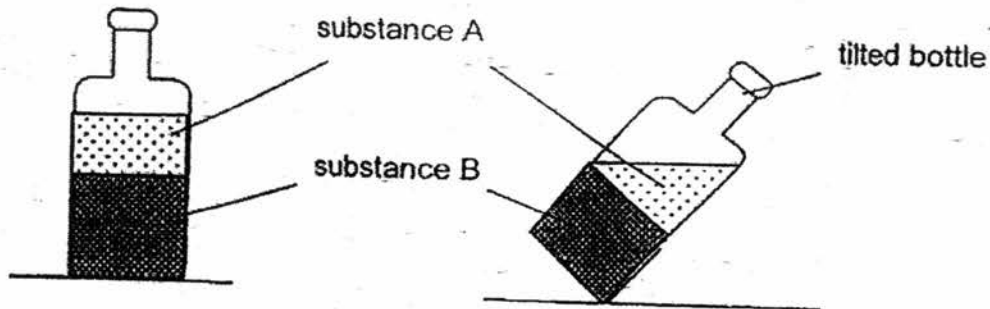


(i) What is the volume of the toy plasticine? [1]

(ii) Suhaila predicted that the mass of the toy plasticine will be lower when it is in the water. Do you agree with his prediction? Explain your answer. [1]

	2
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34. Venessa had a bottle containing substances A and B. She observed the following when the bottle was tilted.

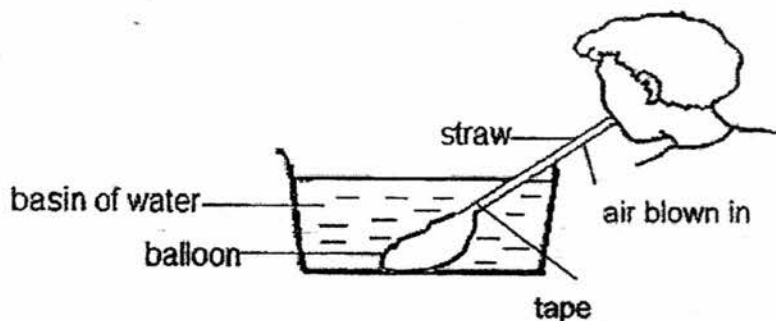


- (a) Which state of matter (solid, liquid, gas) is substance B? [1]

- (b) Venessa says that substance A is in the liquid state. Do you agree with her? Explain your answer. [1]

	2
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Venessa then fixed one end of a deflated balloon tightly to a straw using rubber band. She then taped the other end of the balloon to the bottom of a basin which was filled with water.



- (c) Would the water level in the basin increase or decrease when air was blown into the straw? Explain your answer. [2]

	2
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~End of Paper~

EXAM PAPER 2017 (P4)

SCHOOL : RIVER VELLEY

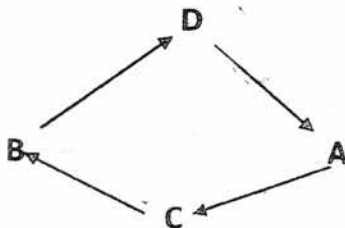
SUBJECT : SCIENCE

TERM : SA2

ORDER CALL :

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

25)



26) Fire

27) a) light b) metal

28) a) poor b) good

29) a) Animals A, B and C live on land. b) in water

c) A: snake B: sparrow

30)a)flower

Leaf

d)The hibiscus plant reproduce by seeds but the bird's nest fern reproduce by spores.

c)Both the hibiscus plant and the bird's nest fern have leaves.

31)a)Material W. Material W took the shortest time to fall off.

b)The type of pin and the type of wax.

32)a)When the distance X increase, the height of the shadow formed on the screen decreases.

b)The shadow will become smaller.

c)The aim is to find out if the brighter torch affect the height of shadow formed on the screen.

d)Light travels in a straight line.

33)a)Water does not have a definite shape and takes the shape of the containers.

b)Water has a definite volume.

c)10cm³

d)No, because the toy plasticine will not change in mass.

34)a)solid.

b)Yes, because water has no definite shape.

c)Increase because air takes up space. So when air is blown into the balloon the water level in the basin increase.