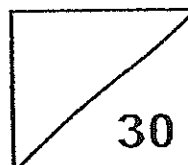




Rosyth School
Second Topical Test for 2014
SCIENCE
Primary 4

Name: _____

Total
Marks:



Class: Pr 4 _____

Register No. _____

Duration: 30 minutes

Date: 21 August 2014

Parent's Signature: _____

Instructions to Pupils:

1. Do not open the booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 parts, Part I and Part II.
4. For questions 1 to 10, write the correct answer in the brackets provided.
5. For questions 11 and 12, give your answers in the spaces provided in Part II.

	Maximum	Marks Obtained
Part I	10 marks	
Part II	5 marks	
Total	15 marks	

* This booklet consists of 9 pages.

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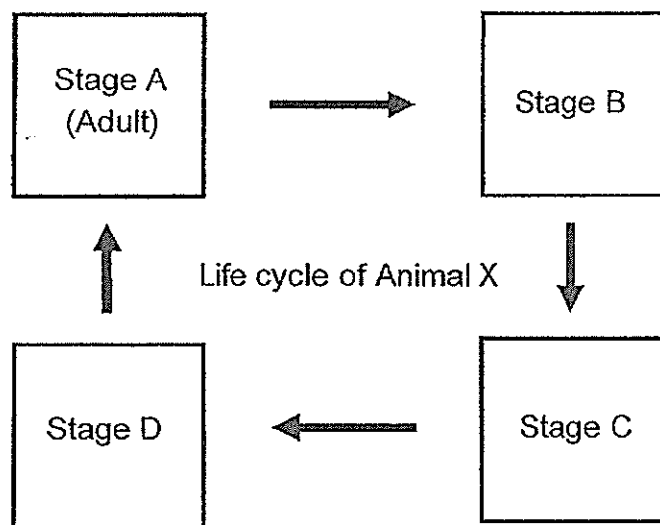
Performance Task

	Maximum	Marks Obtained
Total	15 marks	

Part I (10 MARKS)

For questions 1 to 10, four options are given. Make your choice (1, 2, 3 or 4) and write your answer in the bracket provided.

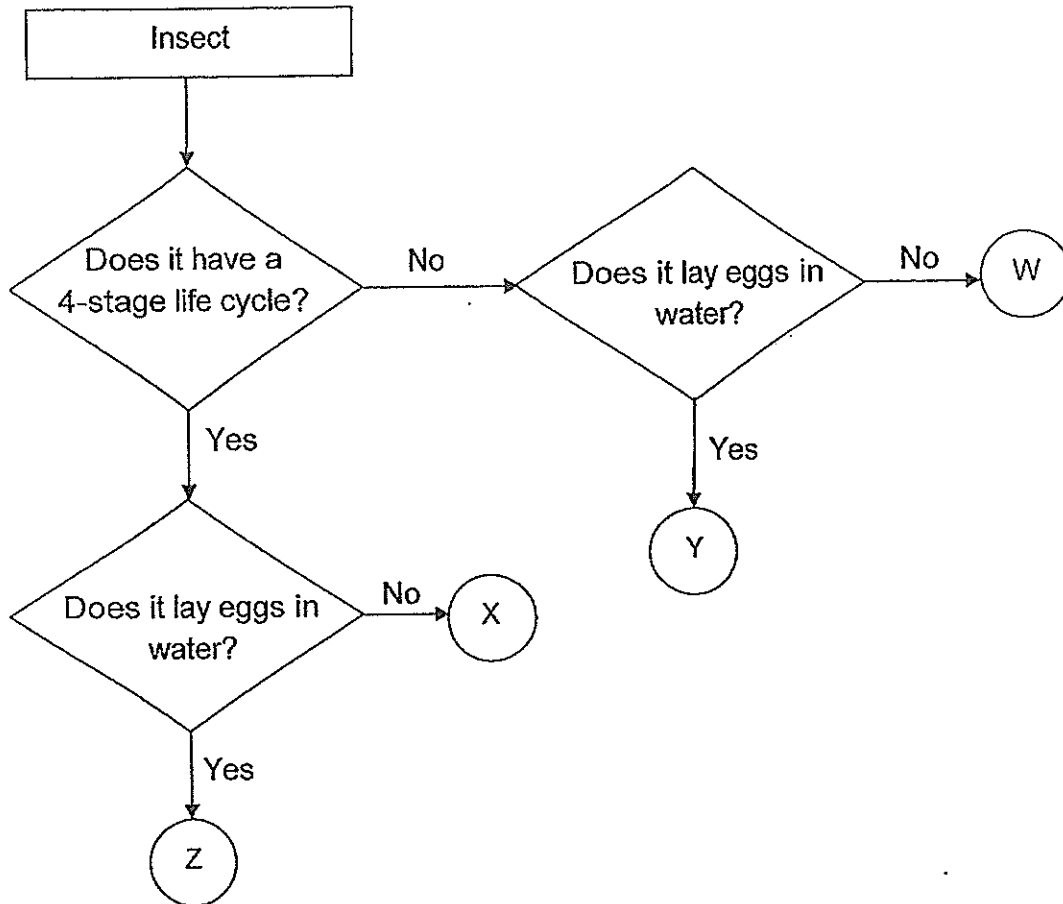
1. The diagram below shows the life cycle of Animal X. If Stage A is the adult stage, what are Stages B, C and D?



	Stage B	Stage C	Stage D
(1)	nymph	egg	larva
(2)	egg	larva	pupa
(3)	egg	pupa	larva
(4)	larva	egg	nymph

()

2. Study the flowchart below.



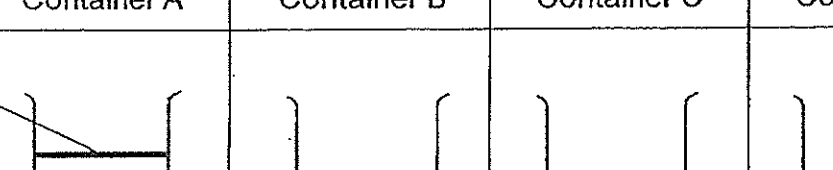
Which of the following statements are correct?

- A : Insect Y lays eggs in water while Insect X does not lay eggs in water.
- B : Insect W lays eggs in water while Insect Z does not lay eggs in water.
- C : Insect Y has a 3-stage life cycle while Insect X has a 4-stage life cycle.
- D : Insect Z has a 3-stage life cycle while Insect W has a 4-stage life cycle.

- (1) A and C only
- (3) B and C only

- (2) A and D only
- (4) B and D only

()

- | | Container A | Container B | Container C | Container D |
|--|-----------------------|-----------------------|------------------------|------------------------|
|  | | | | |
| | Moist cotton wool | Moist cotton wool | Moist cotton wool | Dry cotton wool |
| | Placed in the freezer | Placed in the freezer | Placed near the window | Placed near the window |

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

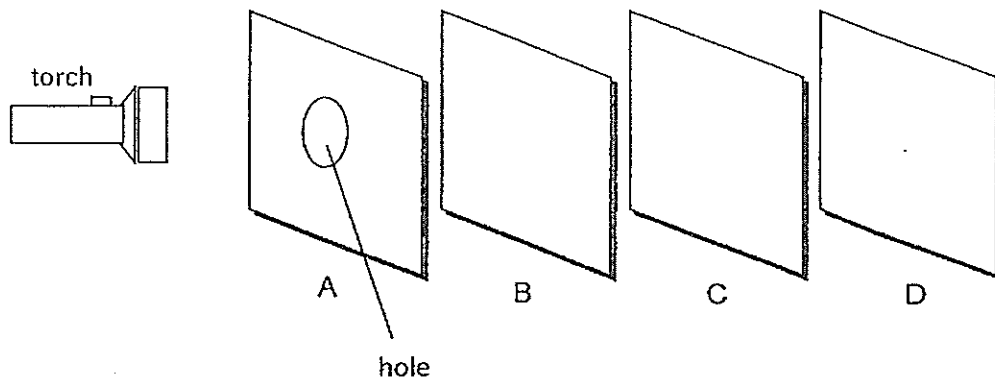
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-
- A diagram of a road junction. A road from the top left turns right to the bottom right. A car is shown on the top left road, with an arrow indicating the 'direction of travel'. At the junction, there are three mirrors labeled X, Y, and Z. Mirror X is on the top left road, Mirror Y is on the bottom right road, and Mirror Z is on the junction road. A car is shown on the bottom right road, with an arrow indicating the 'direction of travel'. The junction road has a dashed line in the center.

(1) Mirror W (2) Mirror X
(3) Mirror Y (4) Mirror Z

()

5. Four sheets A, B, C and D are arranged in a straight line. Each sheet is made of a different material. When the torch is turned on, a very bright oval patch of light is seen on C only.

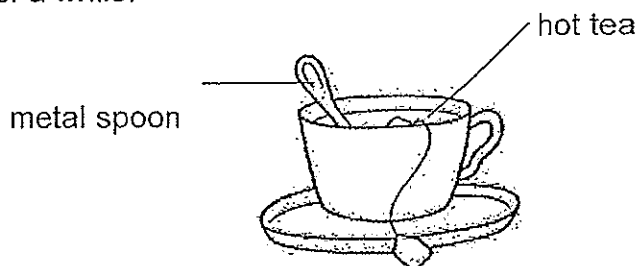


Which one of the following best describes the degree of transparency of sheets A, B, C and D?

	A	B	C	D
(1)	opaque	opaque	transparent	not possible to tell
(2)	transparent	opaque	not possible to tell	opaque
(3)	not possible to tell	transparent	opaque	opaque
(4)	opaque	transparent	opaque	not possible to tell

()

6. Jetta placed a metal spoon in a cup of hot tea. She found that the spoon became hotter after a while.



Which one of the following best explains why the spoon became hotter?

- (1) The cup lost heat to the spoon.
- (2) The hot tea gained heat from the spoon.
- (3) The spoon gained heat from the hot tea.
- (4) The spoon lost heat to the surrounding air.

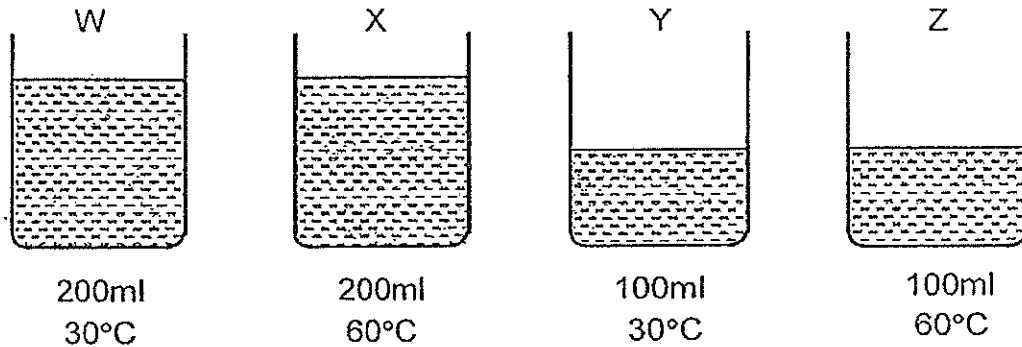
()

7. Which one of the following is a source of heat?

(1)  moon	(2)  cooking pot
(3)  flame of a burning candle	(4)  hand fan

()

8. Jaret placed an egg into each of the four identical glass beakers W, X, Y and Z. The beakers contained different amount of water at different temperature as shown below. The eggs are of similar sizes.

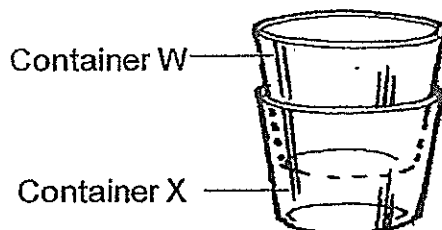


In which beaker would the egg be most cooked?

- | | |
|--------------|--------------|
| (1) Beaker W | (2) Beaker X |
| (3) Beaker Y | (4) Beaker Z |

()

9. Jia Min wanted to separate two identical metal containers which were stuck together.



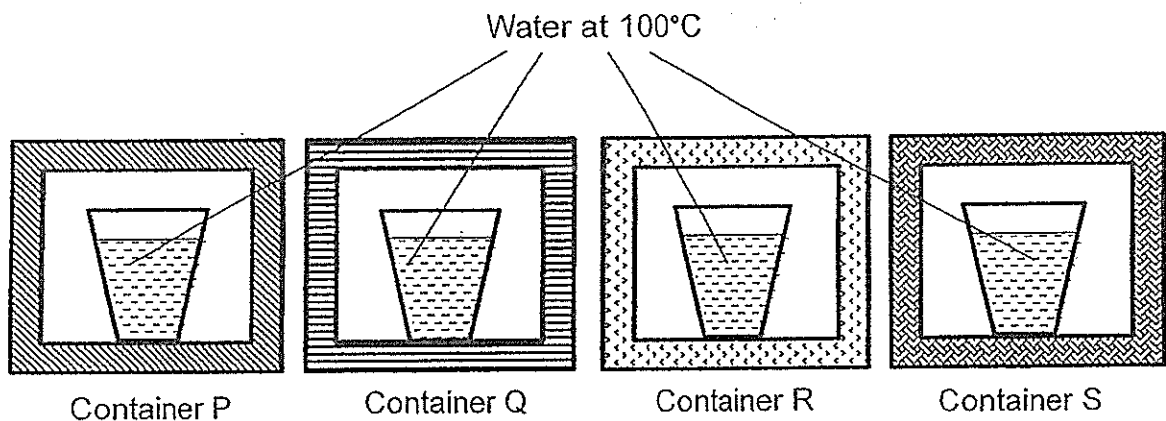
What could she do to separate them?

- A : Put some ice cubes into Container W
- B : Pour some hot water into Container W.
- C : Put Container X into a basin of hot water.
- D : Put Container X into a basin of cold water.

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

()

10. Weiling placed four identical cups containing water at 100°C into four containers P, Q, R and S. The containers were made of different materials.



After 30 minutes, she recorded the temperature of the water in each cup as shown below.

Container	Temperature of water ($^{\circ}\text{C}$)	
	Start of experiment	After 30 minutes
P	100	70
Q	100	60
R	100	80
S	100	95

Weiling wanted to keep a block of ice in a container overnight to prevent it from melting. Which container should she choose?

- (1) Container P (2) Container Q
(3) Container R (4) Container S

PART II (5 MARKS)

For questions 11 and 12, write your answers in the space provided.

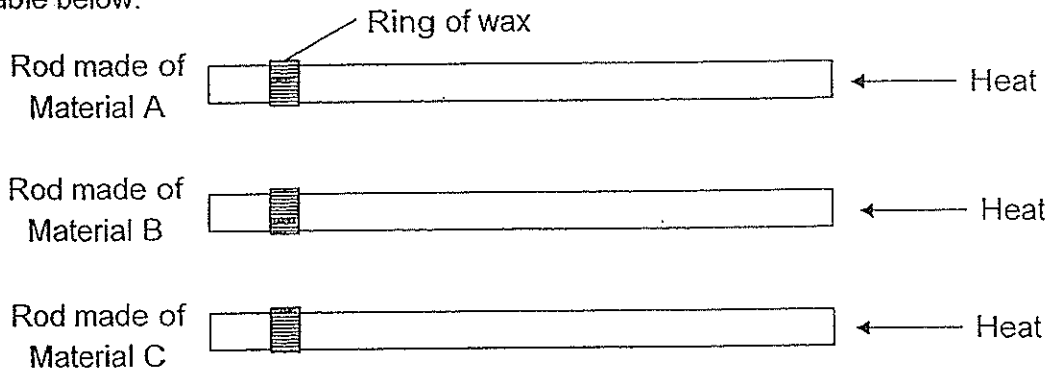
11. Ahmad carried out an experiment on the growth of a seed. He measured the height of the plant and the size of the seed leaves over a period of 9 days and recorded the data in the table as shown below.

	Day 1	Day 3	Day 5	Day 7	Day 9
Height of the plant (cm)	1	2	3	4	5
Size of the seed leaves (mm)	5	4	3	2	1

- (a) Based on his results in the table, state the relationship between the height of the plant and the size of the seed leaves. [1m]

- (b) After Day 9, the seed leaves dropped off. Explain why the plant can still continue to increase in height. [1m]

12. Darrell used 3 rods made of different materials A, B and C for the experiment shown below. The sizes of the rods were the same. He put a ring of wax around each of them and heated the end of each rod. He recorded the results in the table below.

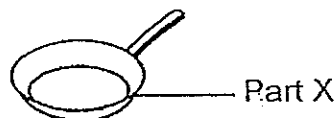


Materials of rod	Time taken for the ring of wax to melt completely (minutes)
A	10
B	8
C	5

- (a) Explain why the wax on the different rods melted after some time. [1m]

- (b) Which material is the poorest conductor of heat? Explain your answer. [1m]

- (c) Which material A, B or C would you choose to make Part X of the frying pan as shown below? Explain why. [1m]



End of Paper

Year: 2014

Level: Primary 4

School: Rosyth School

Subject: Science

Semester: CA2

Part I:

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	1	2	3	4	3	3	2	1	4

Part II:

Q11) a) The taller the plant grows, the smaller the size of the seed leaves.

b) After day 9, the seed leaves drop and the first leaf grows, thus, the plant can still continue to increase in height as the leaf can make food.

Q12) a) Heat travels from the rods and reach the ring of wax.

b) Material A. It takes the longest time for the ring of wax to melt when heated.

c) Material C. It took the shortest time to melt the wax and C is the best conductor of heat.

