

**SEMESTRAL ASSESSMENT ONE  
(2017) PRIMARY THREE**

**SCIENCE**

**BOOKLET A**

Name: \_\_\_\_\_ ( )

Class: Primary 3 - \_\_\_\_\_

Date: 9 May 2017

20 questions

40 marks

Total Time for Booklets A and B: 1 hour 15 minutes

**INSTRUCTIONS TO CANDIDATES**

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

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

This booklet consists of 11 printed pages, excluding the cover page.

**Booklet A (20 × 2 marks)**

For each question from 1 to 20, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer on the Optical Answer Sheet. (40 marks)

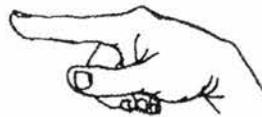
1 Which one of the following consists of only living things?

- (1) boy, car, rain
- (2) girl, plant, tiger
- (3) air, bird, candle
- (4) cloud, smoke, paper

2 Kieran touched a snail that he saw in his school ecogarden.



snail



Kieran's hand

The snail pulled its head into the shell.

What does this tell him about living things?

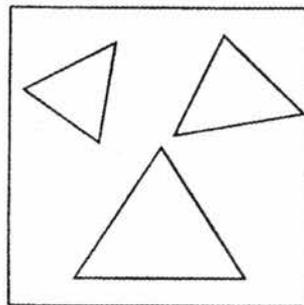
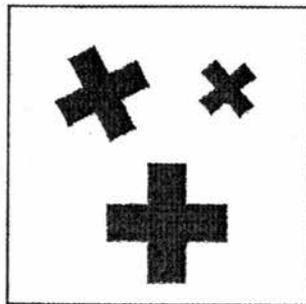
- (1) Living things grow.
- (2) Living things respond to changes.
- (3) Living things need air, food and water to survive.
- (4) Living things reproduce to ensure continuity of its kind.

3 Which of the following shows the characteristics of living things?

- A Water flowing in the river
- B A giraffe giving birth to its young
- C A hot air balloon floating in the sky
- D A chick growing to become a chicken

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

4 Study the objects below carefully.



The objects above are grouped according to their \_\_\_\_\_.

- A sizes
- B colours
- C shapes

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

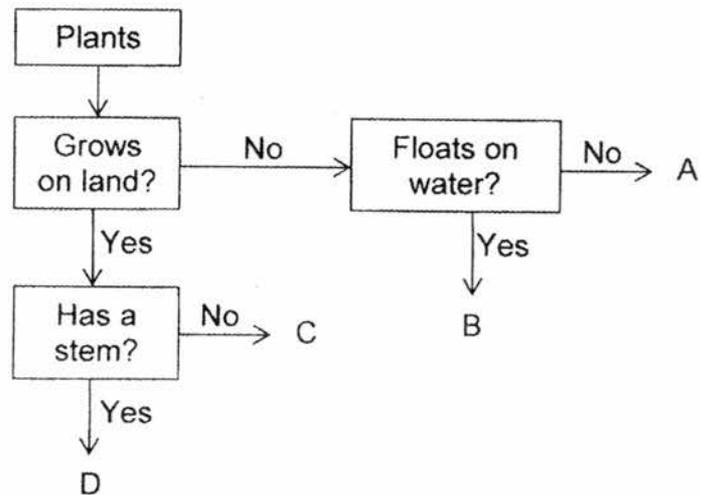
5 What are the parts of a non-flowering plant?

- (1) roots, stem and fruits
- (2) roots, stem and leaves
- (3) stem, leaves and flowers
- (4) leaves, flowers and fruits

6 The diagram below shows an orchid plant.



Study the flowchart below.



Which plant, A, B, C or D, represents the orchid plant?

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

7 The picture below shows a fern.



Ali made the following observations about the fern.

- A Bears flowers
- B Makes its own food
- C Reproduce from spores

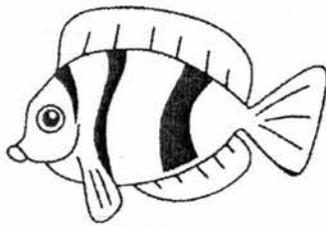
Which of the above observations is/are correct?

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

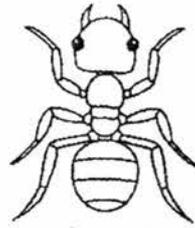
8 Which of the following is correct about flowering and non-flowering plants?

|     | Flowering plants                       | Non-flowering plants                |
|-----|----------------------------------------|-------------------------------------|
| (1) | edible                                 | inedible                            |
| (2) | bear fruits                            | do not bear fruits                  |
| (3) | have stems                             | do not have stems                   |
| (4) | cannot move freely from place to place | can move freely from place to place |

- 9 Which one of the following is a common characteristic of a fish and an insect?



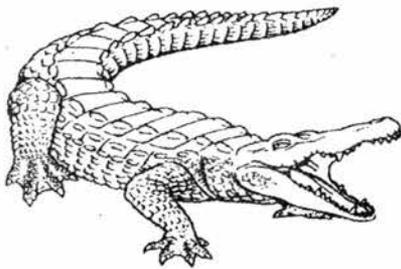
fish



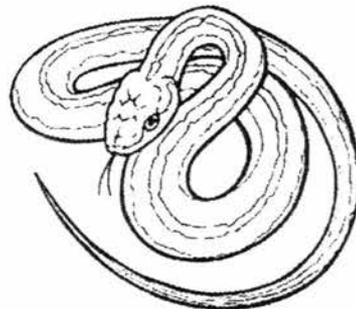
insect

- (1) Both lay eggs.
- (2) Both have six legs.
- (3) Both live on land only.
- (4) Both have scales on their body.

- 10 A crocodile is similar to a snake because both \_\_\_\_\_.



crocodile



snake

- (1) have no legs
- (2) have three body parts
- (3) give birth to their young
- (4) have dry skin covered with scales

- 11 Sally observed three animals, A, B and C, and recorded her observations in the table shown below. A tick (✓) indicates the presence of the characteristic.

|                         | Animals |   |   |
|-------------------------|---------|---|---|
| Observation             | A       | B | C |
| Has hair                |         |   | ✓ |
| Has feathers            | ✓       |   |   |
| Has three body parts    |         | ✓ |   |
| Has three pairs of legs |         | ✓ |   |

Which one of the following could animals A, B and C belong to?

|     | A         | B         | C         |
|-----|-----------|-----------|-----------|
| (1) | bird      | insect    | mammal    |
| (2) | amphibian | reptile   | bird      |
| (3) | bird      | amphibian | insect    |
| (4) | insect    | mammal    | amphibian |

- 12 Four pupils recorded their observations of an animal they each saw at the Singapore Zoo.

Alice It can fly.  
 Bryan It has three body parts.  
 Carson Its body is covered with hair.  
 Dominic Its body is covered with scales.

Who gave the correct observation about an orang-utan?

- (1) Alice  
 (2) Bryan  
 (3) Carson  
 (4) Dominic

13 Which one of the following is correct about bacteria?

- (1) All bacteria are harmful to man.
- (2) Bacteria can make their own food.
- (3) Bacteria can be found everywhere.
- (4) Bacteria can be seen with the naked eye.

14 Which one of the following is correct about mould and mushroom?



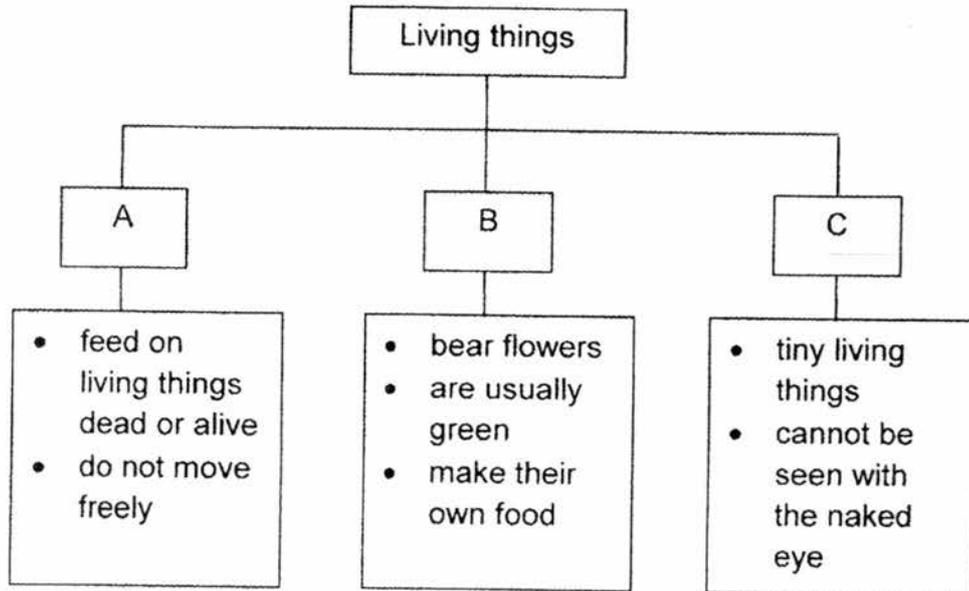
mould



mushroom

- (1) Both are harmful to man.
- (2) Both reproduce by spores.
- (3) Both can make their own food.
- (4) Both can move from one place to another to look for food.

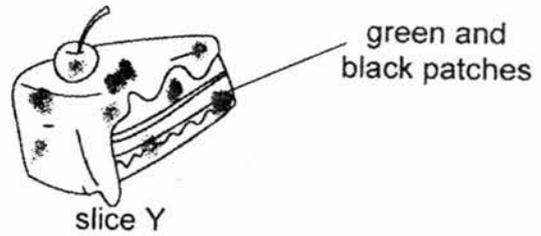
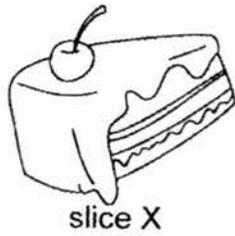
15 Study the classification chart below.



Which of the following could A, B and C be?

|     | A                    | B                | C                    |
|-----|----------------------|------------------|----------------------|
| (1) | Fungi                | Microorganisms   | Non-flowering plants |
| (2) | Fungi                | Flowering plants | Microorganisms       |
| (3) | Non-flowering plants | Fungi            | Microorganisms       |
| (4) | Microorganisms       | Flowering plants | Fungi                |

- 16 Justin had 2 similar slices of cakes, slice X and slice Y. He left slice X in the refrigerator and slice Y on a table in the dining room. After a few days, he observed some green and black patches on slice Y. There were no green and black patches on slice X.



Justin's observation shows that mould grows well in \_\_\_\_\_ places.

- (1) dry
  - (2) wet
  - (3) cold
  - (4) warm
- 17 Materials used to make raincoats, umbrellas and plastic bags should \_\_\_\_\_.

- A be flexible
- B be waterproof
- C be able to float
- D allow most light to pass through it



raincoat



umbrella

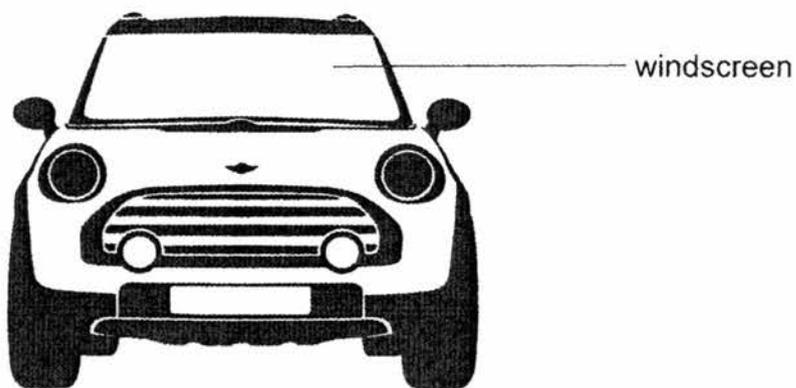


plastic bag

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

18 The table below shows the properties of some materials.

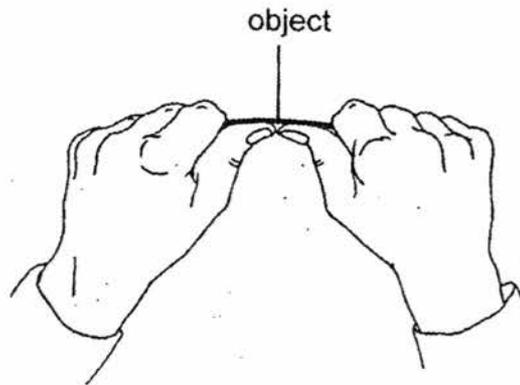
| Material | Properties                                                                                                |
|----------|-----------------------------------------------------------------------------------------------------------|
| W        | <ul style="list-style-type: none"><li>flexible</li><li>allows light to pass through</li></ul>             |
| X        | <ul style="list-style-type: none"><li>flexible</li><li>does not allow light to pass through</li></ul>     |
| Y        | <ul style="list-style-type: none"><li>not flexible</li><li>allows light to pass through</li></ul>         |
| Z        | <ul style="list-style-type: none"><li>not flexible</li><li>does not allow light to pass through</li></ul> |



Which material is most suitable for making the windscreen of a car?

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

- 19 Charles was given three objects made of different materials. He held each object in two hands and bent it as shown in the diagram below.



Which property of material was Charles testing on the three objects?

- (1) Flexibility
  - (2) Waterproof
  - (3) Ability to float
  - (4) Amount of light passing through
- 20 Ashton observed some materials and recorded his observations in the table shown below. A tick (✓) indicates the presence of the property.

| Materials | Able to float | Waterproof | Breaks easily |
|-----------|---------------|------------|---------------|
| A         |               |            | ✓             |
| B         | ✓             | ✓          |               |
| C         | ✓             |            |               |
| D         |               | ✓          | ✓             |

Based on the results in the table above, which material is glass?

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

**End of Booklet A**

**SEMESTRAL ASSESSMENT ONE  
(2017) PRIMARY THREE**

**SCIENCE**

**BOOKLET B**

Name: \_\_\_\_\_ ( )

Class: Primary 3 - \_\_\_\_\_

Date: 9 May 2017

|           |    |
|-----------|----|
| Booklet A | 40 |
| Booklet B | 20 |
| Total     | 60 |

7 questions

20 marks

Total Time for Booklets A and B: 1 hour 15 minutes

**INSTRUCTIONS TO CANDIDATES**

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

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

This booklet consists of 8 printed pages, excluding the cover page.

**Booklet B (20 marks)**

For questions 21 to 27, write your answers in this booklet.

The number of marks available is shown in brackets [ ] at the end of each question or part question. (20 marks)

- 21 The table below shows the characteristics of four plants, K, L, M and N. A tick (✓) in the box represents that the plant has that characteristic.

| Characteristic       | Plant |   |   |   |
|----------------------|-------|---|---|---|
|                      | K     | L | M | N |
| Bears flowers        | ✓     |   | ✓ |   |
| Lives on land        | ✓     | ✓ |   |   |
| Reproduces by spores |       | ✓ |   | ✓ |

- (a) Based on the table above, describe the characteristics of plant K. [1]

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- (b) Which of the following represents plant L? Put a tick (✓) in the correct box. [1]

|                                                                                     |                                                                                     |                                                                                      |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |
| mushroom                                                                            | rose                                                                                | water lettuce                                                                        | bird's nest fern                                                                      |
| <hr/>                                                                               |                                                                                     |                                                                                      |                                                                                       |

The diagram below shows a sunflower plant and a fern.



sunflower plant



fern

- (a) Based on the diagram above, state a similarity and a difference between the ~~tomato~~ <sup>sunflower</sup> plant and the fern. Do not compare shape and size. [2]

Similarity:

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Difference:

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- (b) Paul classified the plants as shown below.

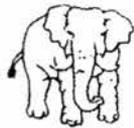
| (i)                                                                                                                                                                                                                                                                                                                                                                                  | (ii)                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>sunflower plant</p> </div> <div style="text-align: center;">  <p>fern</p> </div> </div> | <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>water lily</p> </div> <div style="text-align: center;">  <p>water hyacinth</p> </div> </div> |

Give a suitable heading for (i) and (ii) in the table above. [1]

23 Alex classified the four animals in the flowchart based on their characteristics as shown below.



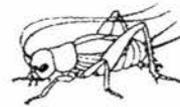
goldfish



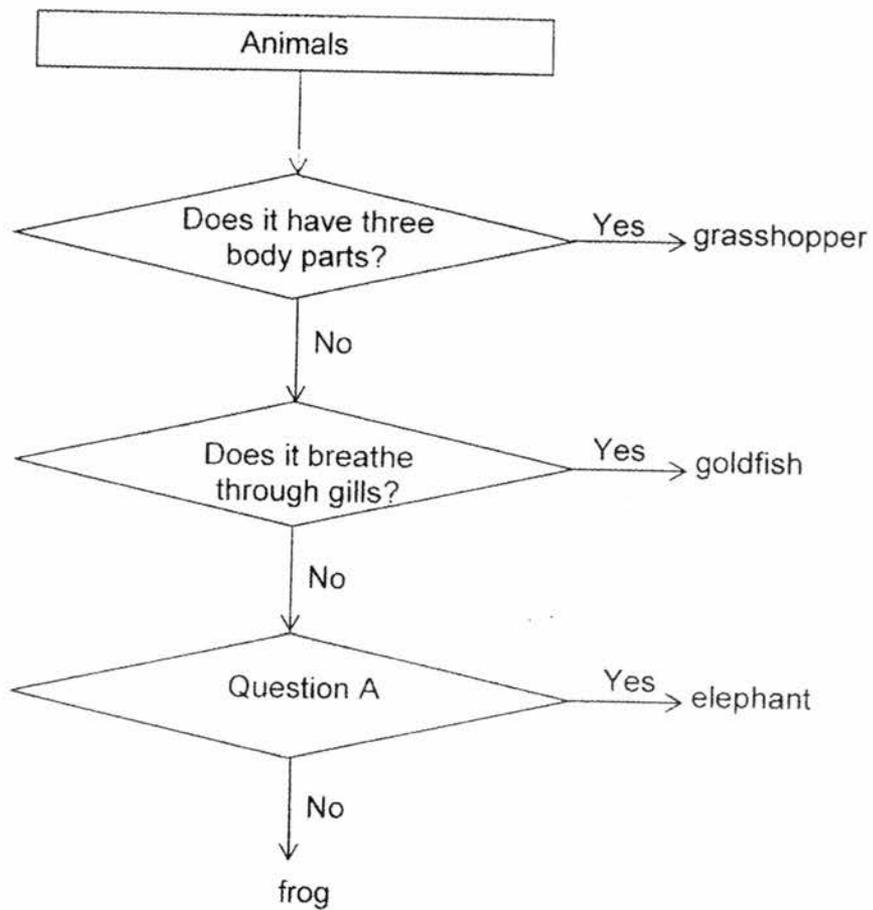
elephant



frog



grasshopper



(a) What was Question A? Put a tick (✓) in the correct box.

[1]

|                          | Tick (✓) |
|--------------------------|----------|
| Does it have hair?       |          |
| Does it have feathers?   |          |
| Does it have moist skin? |          |

Continue from Question 23

Based on the flowchart on page 3,

(b) list all the characteristics of a goldfish.

[1]

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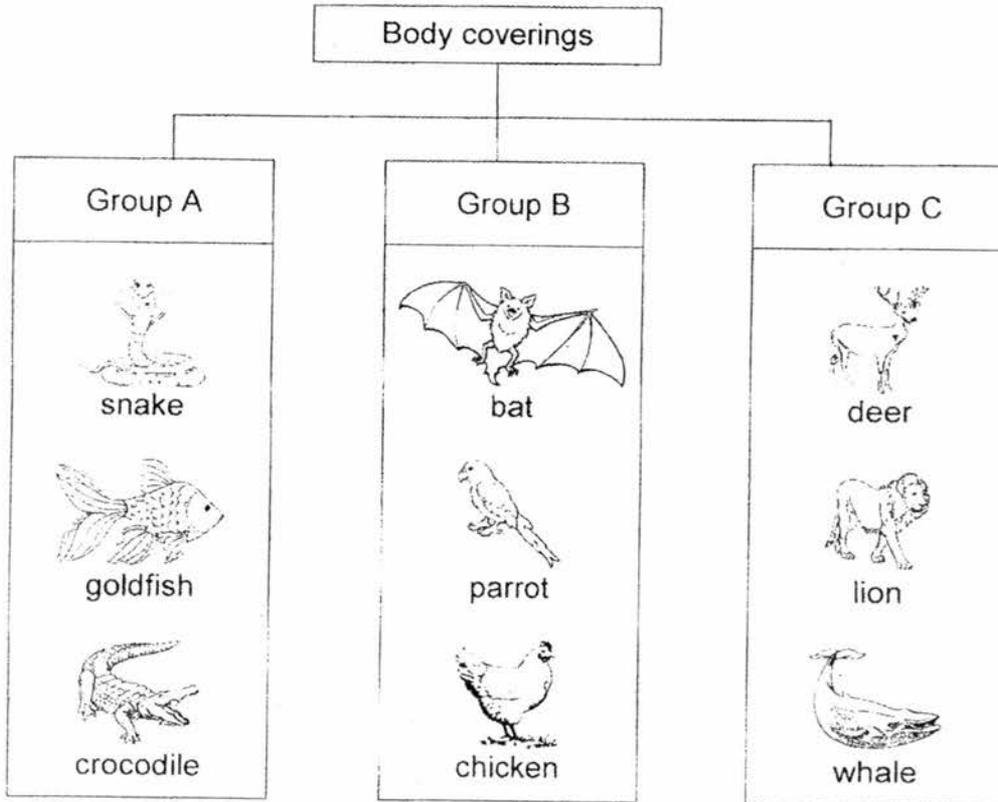
(c) write down the difference between a grasshopper and a goldfish.

[1]

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- 24 The classification chart below shows how some animals are grouped according to their body coverings.



- (a) Which of the above animals is classified wrongly? [1]

\_\_\_\_\_

- (b) Explain your answer in (a). [1]

\_\_\_\_\_

\_\_\_\_\_

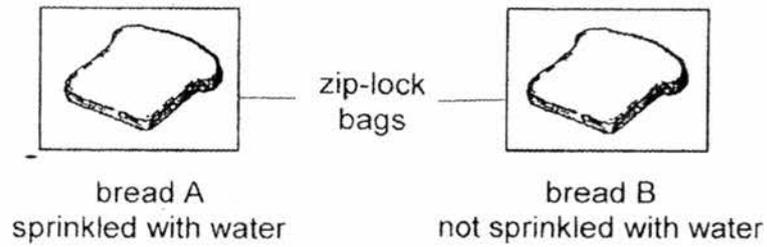
- (c) Give a heading for each group. [1]

Group A: \_\_\_\_\_

Group B: \_\_\_\_\_

Group C: \_\_\_\_\_

- 25 Bernice had two slices of bread. She sprinkled a few drops of water on bread A only. She then put each of the bread into two separate zip-lock bags. She sealed the bags and placed them on a table.



- (a) What would Bernice observe on bread A and bread B three days later? [2]

| Bread | Observation |
|-------|-------------|
| A     |             |
| B     |             |

- (b) Explain your observations for bread A. [1]

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26 Look at the swimming float below.



(a) State two important properties of the material used to make the swimming float. [2]

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

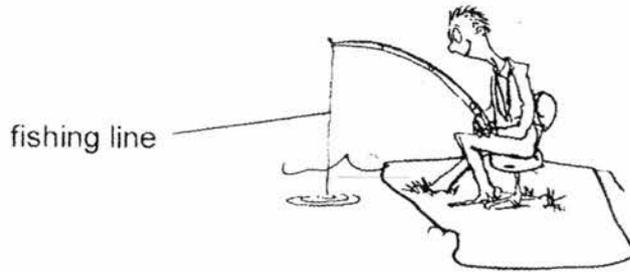
(ii) \_\_\_\_\_

(b) Classify the following objects into the table below. [1]

|                                                                                                        |                                                                                                     |                                                                                               |
|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <br>inflated balloon | <br>glass marble | <br>stone |
|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|

| Able to float | Not able to float |
|---------------|-------------------|
|               |                   |

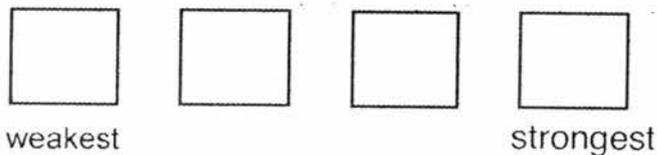
27 Caleb carried out an experiment to test the strength of four materials, P, Q, R and S, used to make fishing lines. He added weights of 1 kg at a time to each of the four materials.



He recorded the number of weights needed for each material to break in the table below.

| Material | Number of weights added just before the material broke |
|----------|--------------------------------------------------------|
| P        | 4                                                      |
| Q        | 9                                                      |
| R        | 6                                                      |
| S        | 2                                                      |

(a) Arrange the materials from the weakest to the strongest. [1]



(b) Based on Caleb's experiment, which material, P, Q, R or S, is most suitable for making a school bag as shown below? Explain your answer. [2]




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End of Booklet B

**EXAM PAPER 2017**

**LEVEL : PRIMARY 3**  
**SCHOOL : CATHOLIC HIGH SCHOOL**  
**SUBJECT : SCIENCE**  
**TERM : SA1**

**Section A**

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

**Section B**

- Q21. (a) K bears flowers and lives on land.  
(b) Bird's nest fern.
- Q22. (a) Similarity: They both have stem.  
Difference: Sunflower plant has a flower but the fern does not have a flower.  
(b) (i) Land plants  
(ii) Water plants
- Q23. (a) Does it have hair?  
(b) A goldfish does not have three body parts and it breathes through gills.  
(c) A grasshopper has three body parts while a goldfish does not.
- Q24. (a) Bat  
(b) A bat is a mammal. Its body is covered with hair and not feathers. It should be put in Group C.  
(c) A: Scales                      B: Feathers                      C: Hair

- Q25. (a) A: Has green patches of mould.  
B: Nothing
- (b) Mould needs moisture to grow, thus it grew well on bread A which was sprinkled with water but does not grow well on bread B which was not sprinkled with water.
- Q26. (a) (i) Waterproof  
(ii) The ability to float
- (b) Able to float: Inflated balloon  
Not able to float: Stone, glass marble
- Q27. (a) S, P, R, Q  
(b) Material Q. It is the strongest among the four materials as it could hold the greatest number of weight just before the material broke.

