



**NAN HUA PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1 – 2012  
PRIMARY 3**

**SCIENCE**

**BOOKLET A**

**30 Multiple Choice Questions (60 marks)**

**Total Time for Booklets A and B : 1 hour 45 minutes**

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.

**Marks Obtained**

|           |  |      |
|-----------|--|------|
| Booklet A |  | / 60 |
| Booklet B |  | / 40 |
| Total     |  | /100 |

Name: \_\_\_\_\_ ( ) Class: P 3 \_\_\_\_\_

Date: 3 May 2012

Parent's Signature: \_\_\_\_\_

**Section A: (30 x 2marks = 60 marks)**

For each question from 1 to 30, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Which of the following is a living thing?

- (1) Ruler
- (2) Snail
- (3) Eggshell
- (4) Hair band

2. Which one of the statements about all living things is false?

- (1) They can grow.
- (2) They can reproduce.
- (3) They need sunlight to grow.
- (4) They need air, water and food to survive.

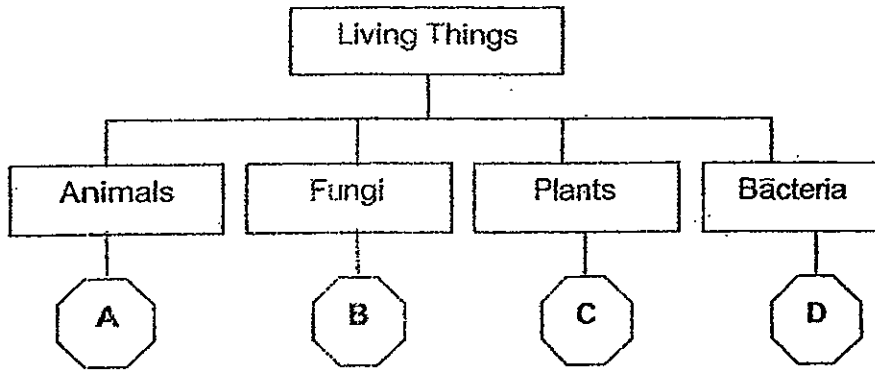
3. The diagram below shows a caterpillar. It eats many leaves and turns into a butterfly after a few weeks.



This shows that it can: \_\_\_\_\_

- (1) grow
- (2) reproduce
- (3) camouflage
- (4) respond to changes

4. Study the classification table below carefully.



Which of the following best represent A, B, C and D respectively?

|     | A             | B           | C         | D         |
|-----|---------------|-------------|-----------|-----------|
| (1) | bat           | toadstool   | flamingo  | pong pong |
| (2) | rabbit        | mould       | sunflower | bacilli   |
| (3) | venus flytrap | mushroom    | balsam    | moss      |
| (4) | elephant      | ladder fern | carnation | yeast     |

5. Sally went to a park and recorded her observations of two plants, X and Y, as shown in a table below.

| X                       | Y                   |
|-------------------------|---------------------|
| grows on other plants   | grows in soil       |
| spores under the leaves | fruit contain seeds |

Based on Sally's observations, which pair of plants could be X and Y respectively?

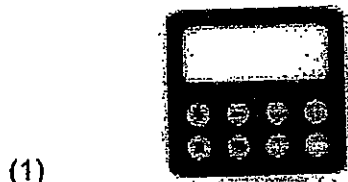
- (1) duckweed and rose
- (2) moss and duckweed
- (3) fern and hibiscus
- (4) grass and orchid

6. You can classify an animal as an insect if it \_\_\_\_\_.

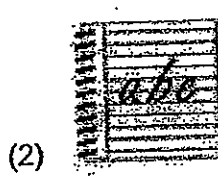
- A can fly
- B has two body parts
- C has a pair of feelers
- D has three pairs of legs

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

7. Which of these objects is most likely made of one material only?



calculator



notebook



fruit blender



envelope

8. Which of the following materials are man-made materials?

- A wool
- B nylon
- C polyester
- D cashmere

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

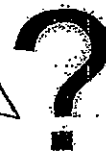
9. Mary was given a sheet of material. Which of the following tests can she carry out to find out whether the material is flexible?
- (1) Bend the material to see if it bends easily.
  - (2) Soak the material to see if it absorbs water easily.
  - (3) Pull and push the material to see if it breaks easily.
  - (4) Use a toothpick to scratch the material to see if it leaves any marks.

10. The following is a description of **Material A**.

I am flexible and waterproof.

When you hit me with a hammer,  
I will not break.

What material am I?



Which of the following is most likely to be **Material A**?

- (1) steel
  - (2) glass
  - (3) nylon
  - (4) rubber
11. Four children were discussing the use of materials. Whose idea reflects the correct use of the material that was chosen ?

Tom said, "I will use rubber to make a ruler."

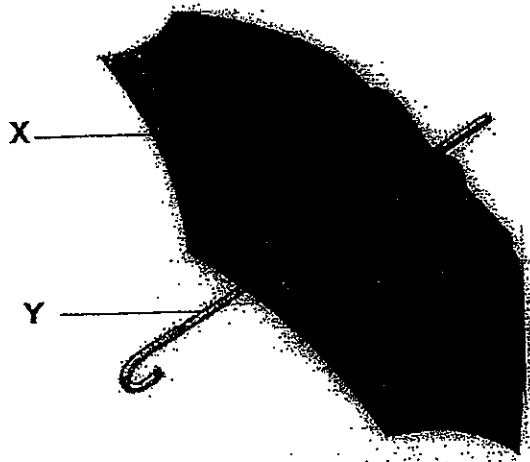
Harry said, "I will use glass to make a mirror."

Jack said, "I will use metal to make a float."

Alice said, "I will use cardboard to make a kite."

- (1) Tom
- (2) Harry
- (3) Jack
- (4) Alice

12. The picture below shows an umbrella. What are X and Y likely to be made of?



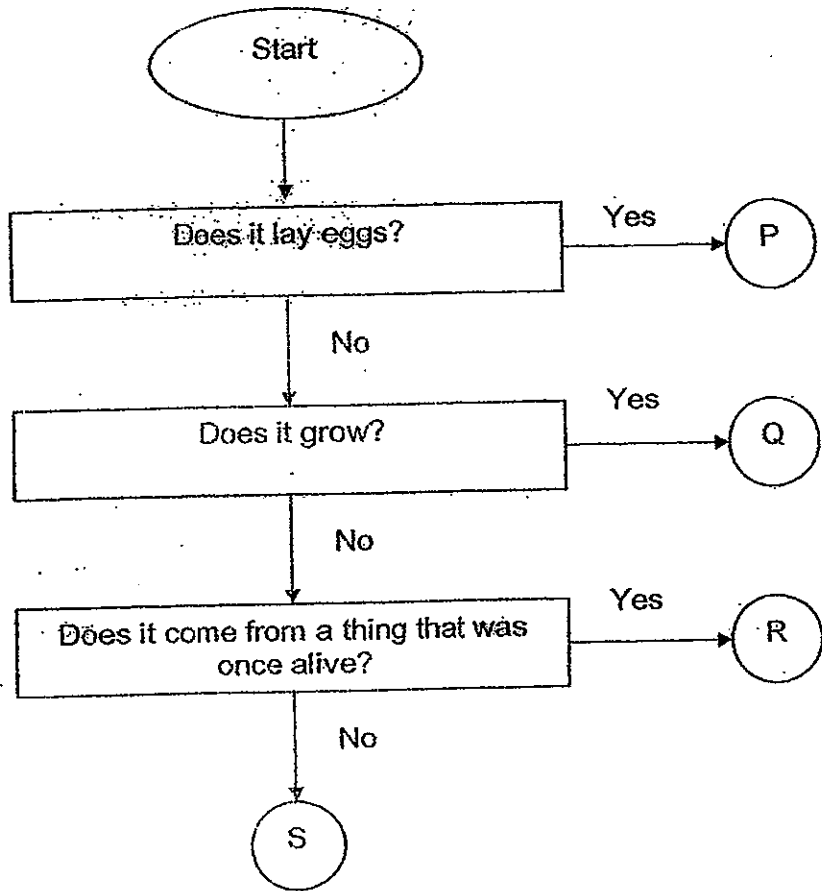
|     |         |         |
|-----|---------|---------|
| (1) | paper   | metal   |
| (2) | plastic | ceramic |
| (3) | cloth   | metal   |
| (4) | cloth   | paper   |

13. What are the following factors that must be taken into consideration when choosing a material to make an object?

- A Availability of the material
- B Properties of the material
- C The purpose of using the object

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

14. Study the flow chart below carefully. Which of the following is classified correctly?



|     |          |            |              |                |
|-----|----------|------------|--------------|----------------|
| (1) | platypus | dolphin    | silk blouse  | plastic comb   |
| (2) | sparrow  | bat        | leather belt | feather duster |
| (3) | cheetah  | silverfish | book         | kettle         |
| (4) | salmon   | butterfly  | ceramic pot  | metal grill    |

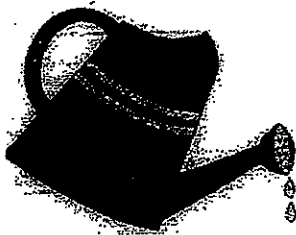
15. An experiment was set up to determine if the amount of water affects the growth of plants. Which of the following conditions should be changed?



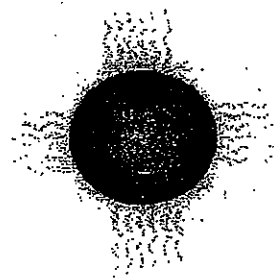
(1) Type of soil



(2) Type of plants

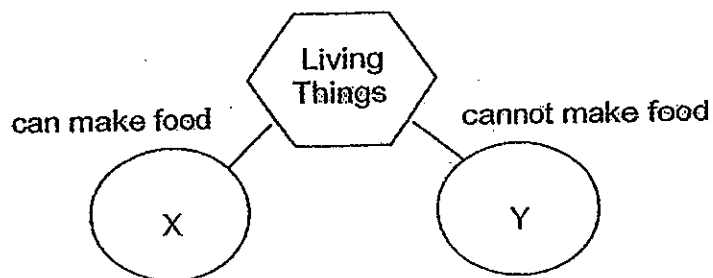


(3) Amount of water



(4) Amount of sunlight

16. Study the chart below carefully. Which of the following are similarities between X and Y?



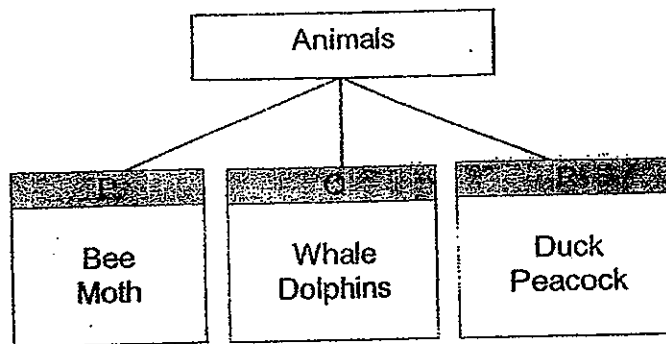
- (1) Both need water to survive.
- (2) Both need sunlight to survive.
- (3) Both have leaves, stem and roots.
- (4) Both can move freely from place to place by themselves.



17. The picture below shows a dog salivates when it sees a bowl of food. What can you conclude about living things from this picture?



- (1) Living things can eat.  
(2) Living things can see.  
(3) Living things can salivate.  
(4) Living things can respond to stimuli.
18. Which of the following groups of animals is not represented in the classification table below?



- (1) Fish  
(2) Birds  
(3) Insects  
(4) Mammals

19. Some descriptions of a plant are shown below.

It does not bear flowers.  
It reproduces from spores.  
It needs sunlight to grow.

It is most likely to be a \_\_\_\_\_ plant.

- (1) cactus
- (2) ginger
- (3) bamboo
- (4) ladder fern

20. The table below shows how fruits can be grouped.

|            | Round fruit | Square fruit |
|------------|-------------|--------------|
| One seed   | W           | X            |
| Many seeds | Y           | Z            |

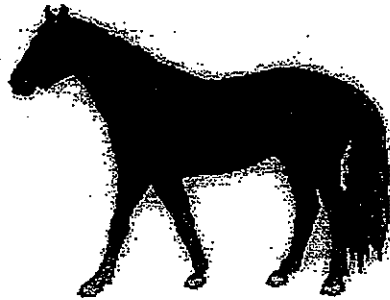
In which box, W, X, Y or Z, would you place mango?

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

21. Which characteristics is seen in both the spiny anteater and the horse?



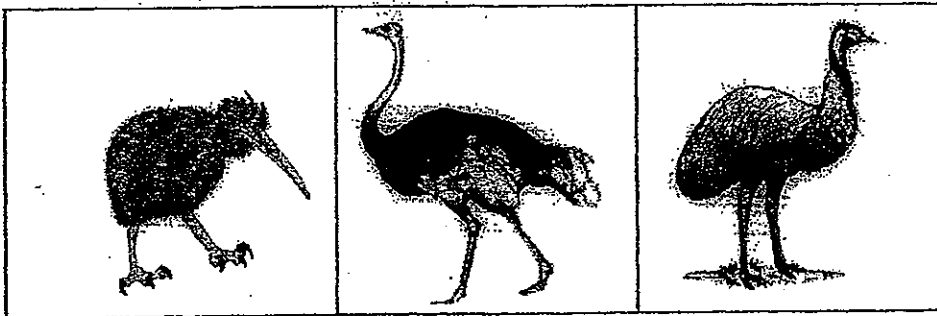
spiny anteater



horse

- (1) Both have hair.
- (2) Both are cold-blooded.
- (3) Both are able to live in the sea.
- (4) Both reproduce by laying eggs.

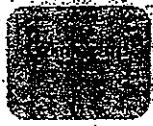
22. Which of the following characteristics shows why the animals below are classified as birds?



- A They can fly.
- B They have a beak.
- C They have feathers.
- D They lay eggs with hard shells.

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

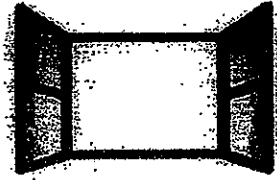
23. Which of the following objects are made from the same material?



ezlink card



drinking straw



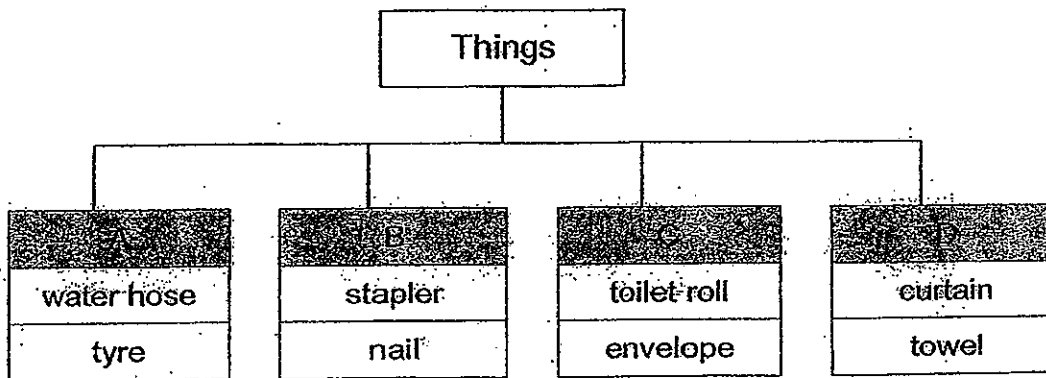
window pane



eraser

- (1) ezlink card and eraser
- (2) eraser and window pane
- (3) ezlink card and drinking straw
- (4) window pane and drinking straw

24. Study the classification chart below.



In which group would you put a cotton blanket?

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

25. Ryan compared the hardness of four objects A, B, C and D by scratching the objects with different rods. He recorded the observations in the table below using a (✓) to indicate the presence of scratch marks on the object.

|   | Presence of scratch marks |            |           |
|---|---------------------------|------------|-----------|
|   | plastic rod               | wooden rod | metal rod |
| A | ✓                         | ✓          | ✓         |
| B |                           |            | ✓         |
| C |                           |            |           |
| D |                           | ✓          | ✓         |

Which of the following statements describe the observations in the table correctly?

- (1) Object C is the softest.
- (2) Object A is the hardest.
- (3) Object D is softer than object A.
- (4) Object B is harder than object A.

26. The table below shows the properties of some objects.

|              | Properties |      |
|--------------|------------|------|
|              | Light      | Hard |
| Rubber ball  | Yes        | No   |
| Glass bowl   | Yes        | No   |
| Iron anchor  | No         | Yes  |
| Ceramic vase | Yes        | Yes  |

Which of the following objects has its properties stated correctly?

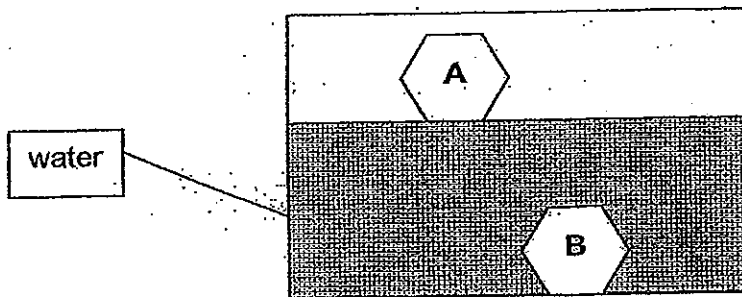
- (1) Rubber ball
- (2) Glass bowl
- (3) Iron anchor
- (4) Ceramic vase

27. Which of the following properties of materials need to be considered in the making of a raincoat?

- A It must be light.
- B It must be flexible.
- C It must be waterproof.
- D It must be transparent.

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

28. Kevin collected two materials to do an experiment. He dropped each material into a large container of water. The diagram below shows their positions in the container.



What object can he make with material B?

- (1) raft
- (2) buoy
- (3) life jacket
- (4) ship anchor

29. You are designing a toy for children age 5 to 10. Which material would be the most suitable choice?

| Material | Weight | Strength              |
|----------|--------|-----------------------|
| A        | Light  | Does not break easily |
| B        | Heavy  | Does not break easily |
| C        | Light  | Breaks easily         |
| D        | Heavy  | Breaks easily         |

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

30. Clara took out four objects from her school bag and put them into a basin of red-coloured water. She observed that one of the objects is stained red. Which one of the following objects could be stained with the red-coloured water ?



(1) marble



(2) paper clip



(3) writing pad



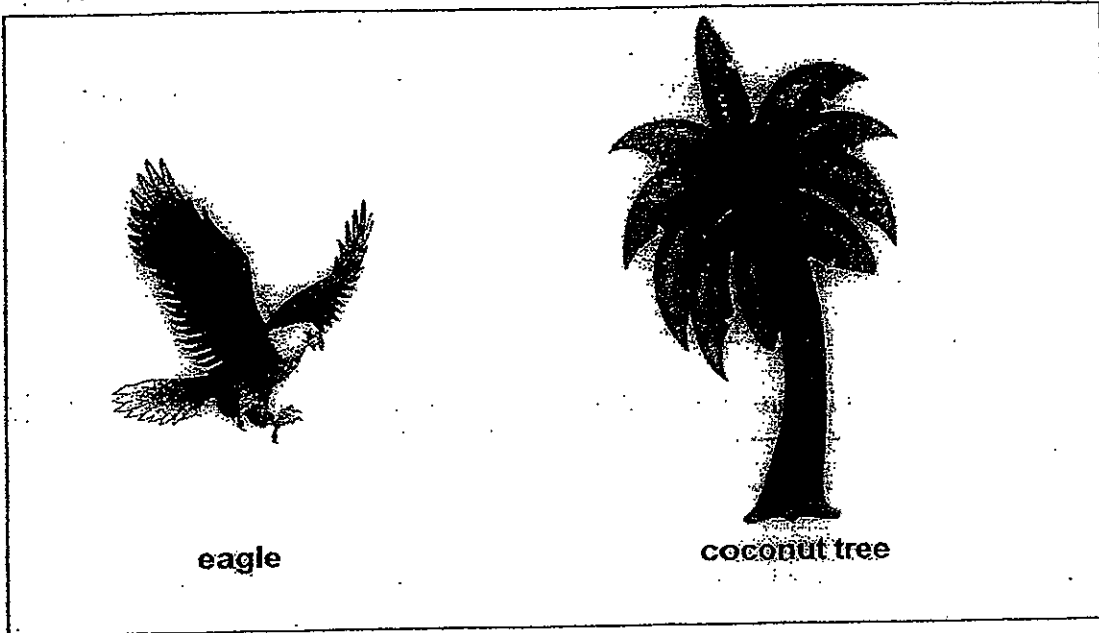
(4) plastic ruler

**Section B: (40 marks)**

Write your answers to question 31 to 44 in the space provided.

The number of marks allocated is shown in brackets [ ] at the end of each question or part of the question.

31. The diagram below shows an eagle and a coconut tree.



(a) State the **difference** in the way the eagle and the coconut tree get their food. [2]

---

---

(b) State **one common characteristic** that these two living things have. [1]

---

---

|       |   |
|-------|---|
| Score | 3 |
|-------|---|

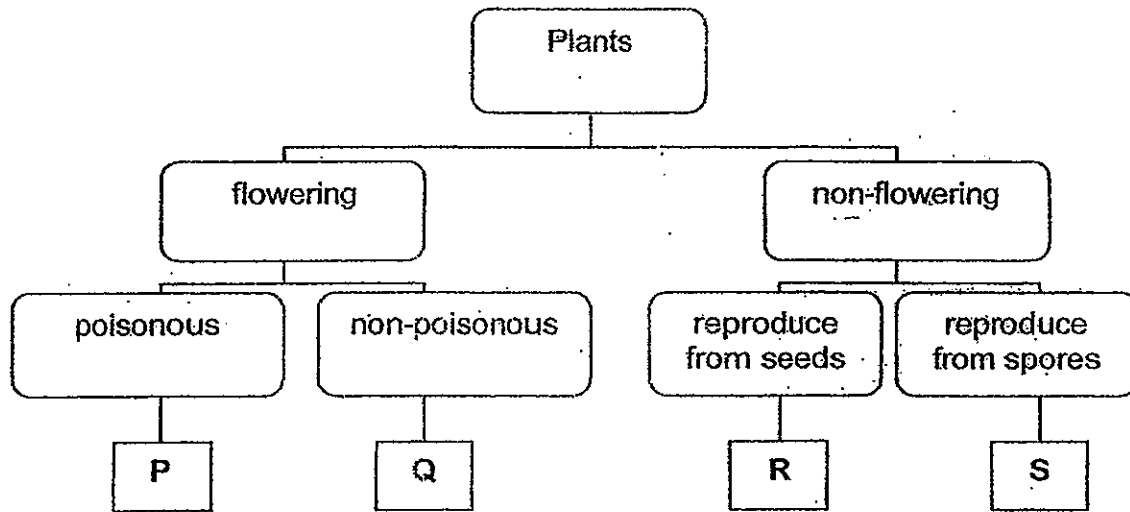


32. Match the following observations to the correct characteristics of the living things by joining the dots correctly.

| Observations                                                | Living things...         |
|-------------------------------------------------------------|--------------------------|
| (a) A bee flying around a flower.                           | ● can grow               |
| (b) A tadpole turns into a frog.                            | ● need food              |
| (c) A bird flies away when the window is opened.            | ● can respond to changes |
| (d) A chicken lay eggs                                      | ● need air               |
| (e) A cub suckles on a lion.                                | ● can move by themselves |
| (f) A diver needs an oxygen tank to dive into the deep sea. | ● can reproduce          |

|       |   |
|-------|---|
| Score | 3 |
|-------|---|

33. Study the classification chart below.



Identify the letters in the classification chart that represent each of the following plants below and put these letters into each of the boxes. [4]

(a) bird's nest fern:

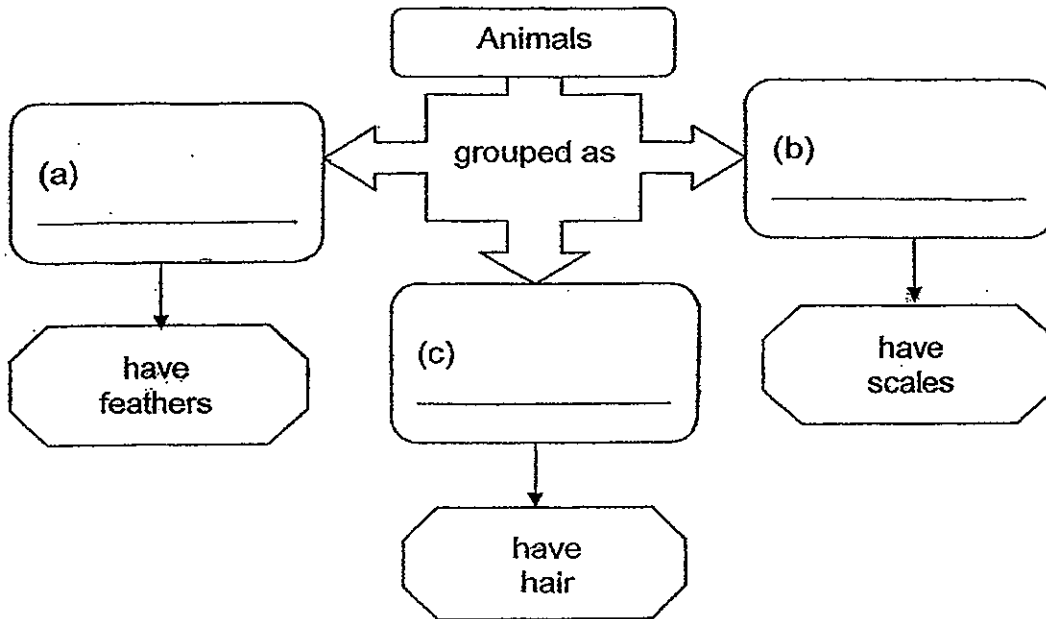
(b) conifer:

(c) dumbcane:

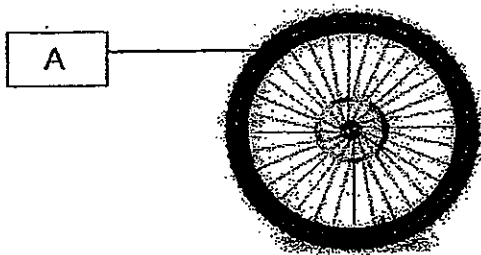
(d) lotus:

|       |   |
|-------|---|
| Score | 4 |
|-------|---|

34. Study the classification chart below. Fill in the correct groupings of animals in blanks (a), (b) and (c). [3]



35. Look at the picture of a bicycle wheel below.



- (a) What material is commonly used to make part A of the bicycle wheel? [1]

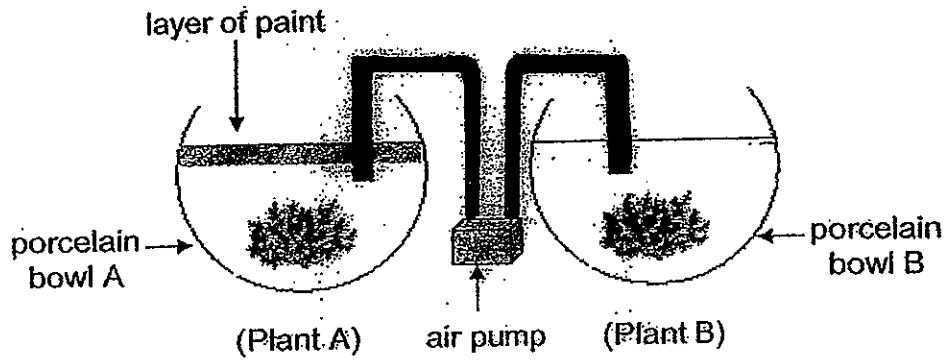
\_\_\_\_\_

- (b) Based on your answer in part (a), give a reason why this material is suitable to make part A especially to travel on uneven road. [1]

\_\_\_\_\_

|       |   |
|-------|---|
| Score | 5 |
|-------|---|

36. Tom conducted an experiment. He put two similar water plants, Plant A and Plant B, in two similar porcelain bowls in his garden. He added a layer of paint in bowl A. The layer of paint floats on the water in bowl A.



(a) Which plant do you think will die first? [1]

---

---

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

---

---

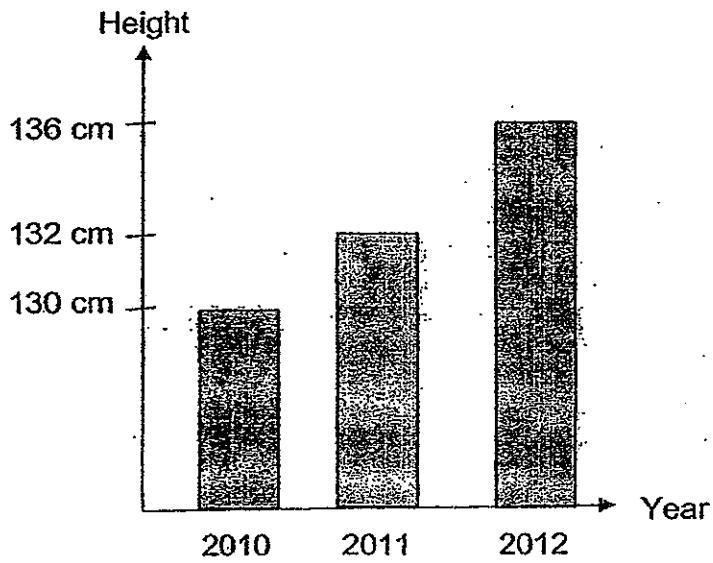
(c) What do you think Tom wanted to find out from his experiment on the plants? [1]

---

---

|       |   |
|-------|---|
| Score | 3 |
|-------|---|

37. The graph below shows the change in Steve's height over a period of three years.



(a) Study the graph above carefully and write down your observation about the height of Steve over a period of three years from 2010 to 2012. [1]

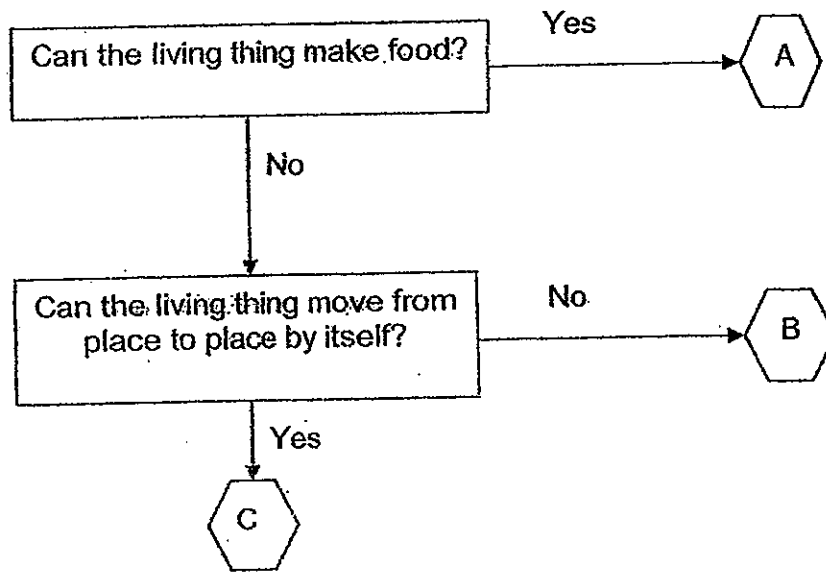
---

(b) What can you conclude about living things from the graph above? [1]

---

|       |   |
|-------|---|
| Score | 2 |
|-------|---|

38. The flow chart below shows the characteristics of three living things, A, B and C.



(a) State one similarity and one difference between living thing B and C using the information presented in the above flow chart. [1]

Similarity: \_\_\_\_\_

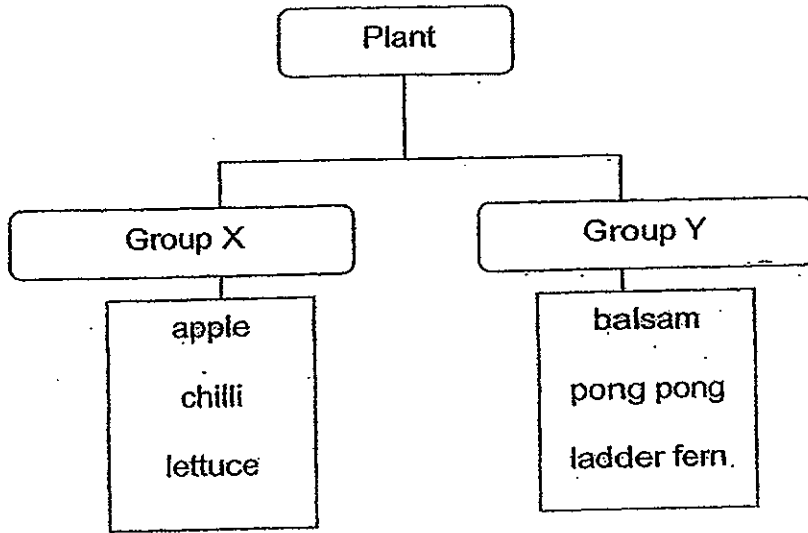
Difference: \_\_\_\_\_

(b) Classify living things A, B and C by identifying the letters in the flow chart that represent each of the living things and put these letters (A, B and C) into each of the boxes below. [3]

Animals:  Plants:  Fungi:

|       |   |
|-------|---|
| Score | 4 |
|-------|---|

39. Study the classification table below carefully.



(a) Based on the classification table above, give suitable headings for X and Y. [2]

Group X: \_\_\_\_\_

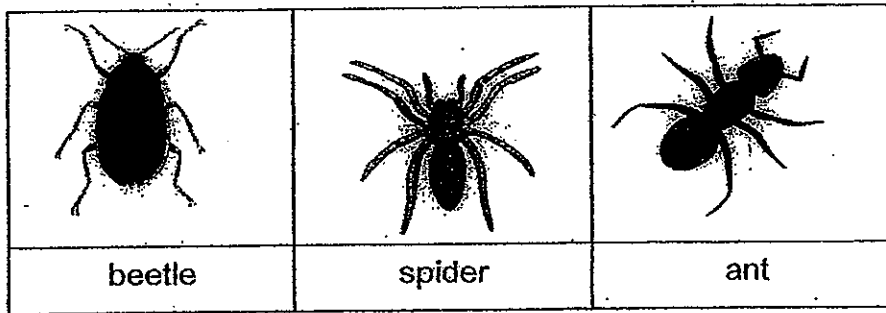
Group Y: \_\_\_\_\_

(b) Which group; X or Y, would you classify the orchid and broccoli? [1]

| Plant    | Group |
|----------|-------|
| orchid   |       |
| broccoli |       |

|       |   |
|-------|---|
| Score | 3 |
|-------|---|

40. Study the diagram of the three animals shown below.



(a) Which two animals belong to the same group? [1]

---

(b) Based on the diagram above, give one reason why the other animal does not belong to the same group. [1]

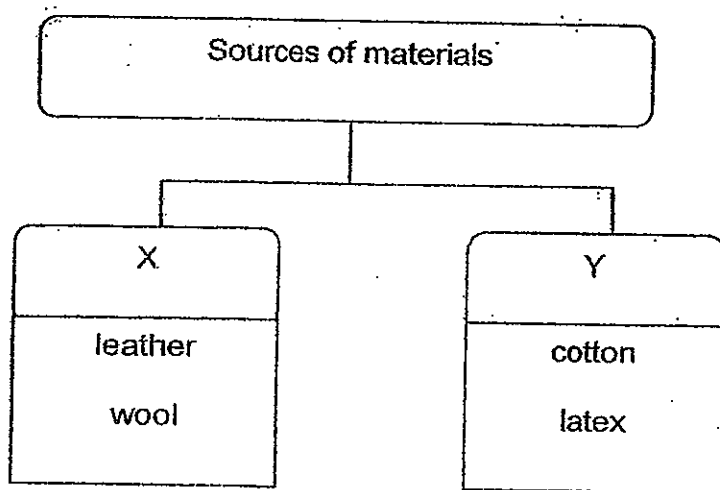
---

---

|       |   |
|-------|---|
| Score | 2 |
|-------|---|



41. During Science lesson, Jane was tasked to classify a set of materials from different sources. After studying them for a while, she grouped them into two different groups, X and Y, using a classification table as shown below.



(a) State a difference between the materials in group X and the materials in group Y. [1]

---

(b) In which group (X or Y) would you place the material 'silk'? [1]

---

(c) Give one reason why cotton is the most common fabric used to make clothing. [1]

---

|       |   |
|-------|---|
| Score | 3 |
|-------|---|

42. Audrey has two bags, a cloth bag and a plastic bag. She cannot decide which one to use. Help Audrey to decide which bag to use by relating the properties of the materials used to make the bags to their uses.



plastic bag



cloth bag

- (a) Which shopping bag would you recommend if Audrey is going to the market to buy many tins of canned food? Give a reason for your answer. [1]

---

---

- (b) Which shopping bag would you recommend if Audrey is going to the market to buy fruit on a rainy day? Give a reason for your answer. [1]

---

---

|       |   |
|-------|---|
| Score | 2 |
|-------|---|

43. Cleo conducted several tests on four different materials, A, B, C and D. She weighed the four materials and recorded their masses in the table below. Then she put them in a basin of water and soaked them. After 15 minutes, she weighed the four materials and recorded their masses again.

| Material | Mass( before soaking in water) | Mass( after soaking in water) |
|----------|--------------------------------|-------------------------------|
| A        | 500g                           | 530g                          |
| B        | 850g                           | 900g                          |
| C        | 600g                           | 600g                          |
| D        | 400g                           | 480g                          |

- (a) Which one of the materials (A, B, C or D) absorbs the most water? [1]

---

- (b) Which materials (A, B, C or D) would be most suitable to make a raincoat and a mop? [2]

| Object   | Material |
|----------|----------|
| raincoat |          |
| mop      |          |

|       |   |
|-------|---|
| Score | 3 |
|-------|---|

44. The diagram below shows four different materials that can be used to make a cup.



(a) Which one of the materials must be coated with a waterproof material before it is used to make a cup? [1]

---

(b) Huijing is planning a list of items to bring to a picnic. She has two types of cups, paper cups and ceramic cups.

Which type of cups should she bring to the picnic? Give two reasons to explain your answer. [2]

---

---

---

|       |   |
|-------|---|
| Score | 3 |
|-------|---|

# ANSWER SHEET

**EXAM PAPER 2012**

**SCHOOL : NAN HUA  
SUBJECT : PRIMARY 3 SCIENCE**

**TERM : SA1**

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

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | Q24 | Q25 | Q26 | Q27 | Q28 | Q29 | Q30 |
| 1   | 4   | 2   | 1   | 3   | 3   | 4   | 4   | 2   | 3   | 4   | 1   | 3   |

31)a)An eagle finds food while a coconut tree make its own food.  
b)They both reproduce.

32)a)can move by themselves  
b)can grow  
c)can respond to changes  
d)can reproduce  
e)need food  
f)need air

33)a)S b)B c)P d)Q

34)a)birds b)fishes c)mammals

35)a)Rubber is commonly used to make part A.  
b)It is flexible.

36)a)Plant A will die first.  
b)The layer of paint prevent light from entering the water so the plant cannot make food.  
c)He wanted to find out if plants need sunlight to survive.

37)a)He has grown 6cm taller.  
b)Living things will grow.

38)a)Similarity: They both cannot make food.  
Difference: Living thing B cannot move by itself while living thing C can.

b)C, A, B

39)a)X: edible Y: inedible  
b)Y, X

40)a)The beetle and ant belong to the same group.  
b)The spider has eight legs while the beetle and ant only have six legs.

41)a)The materials in group X comes from animals while the materials in group Y comes from plants.  
b)I will place 'silk' in group X.  
c)It is because cotton is easy to produce and it is light.

42)a)I would recommend Audrey to use the cloth, bag because it can withstand heavy weight without breaking easily while a plastic bag will.  
b)I would recommend Audrey to use the plastic bag because it is waterproof while a cloth bag will absorb a lot of water.

43)a)Material D absorb the most water.  
b)C, D

44)a)It is paper.  
b)She should bring the paper cups because it is light and will not break easily while a ceramic up is heavy and it will break easily.