

TAO NAN SCHOOL

PRIMARY 4 SCIENCE YEAR-END EXAMINATION – 2008

Name: _____ () Date: 23 October 2008

Class: P4 _____

Time: 8.00 a.m. to 9.30 a.m.

BOOKLET A

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

	Score	Marks
Section A		60
Section B		40
Total		100

Parent's signature: _____

Section A (30 x 2 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 statements describes a living thing **incorrectly**?

- 1) A living thing needs energy.
- 2) A living thing can reproduce.
- 3) A living thing can respond to changes.
- 4) A living thing can move from one place to another.

2. Which option lists correctly what is needed by human beings to stay alive?

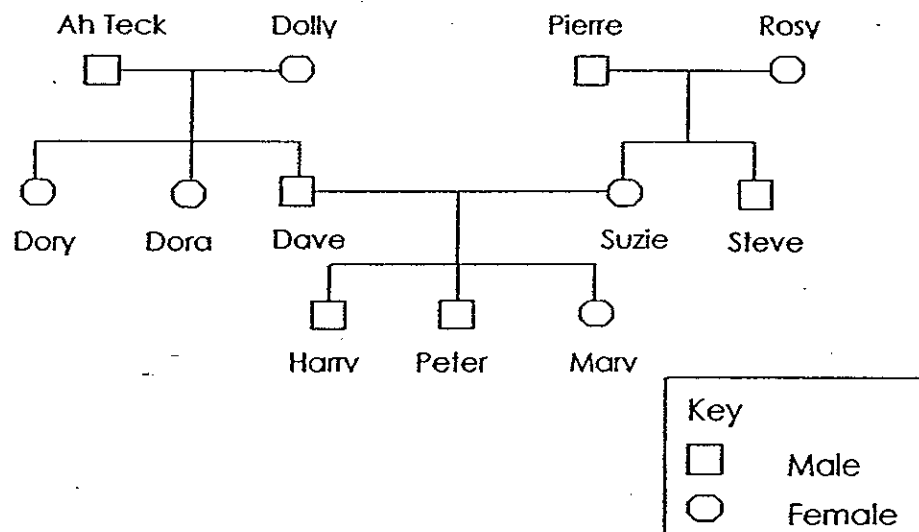
1)	Food	Water	Light	Warmth
2)	Food	Water	Coldness	Oxygen
3)	Food	Water	Warmth	Oxygen
4)	Food	Light	Coldness	Oxygen

3. Which of the following statements about our body is **incorrect**?

- 1) The digestive system breaks down food into simpler forms.
- 2) The muscular and skeletal systems enable the body to move.
- 3) The circulatory system helps to transport undigested food to the stomach.
- 4) The respiratory system enables the exchange of gases with the surroundings.

4. What must happen for an egg to hatch?
- The egg must be fertilized.
 - The egg must be given food and water.
 - The egg must be kept warm by the hen for 21 days.
- a and b only
 - a and c only
 - b and c only
 - All of the above

Look at the family tree below and answer Questions 5 and 6.



5. Who are Peter's parents?
- Pierre and Rosy
 - Dave and Suzie
 - Harry and Mary
 - Ah Teck and Dolly
6. How many siblings does Dave have?
- Dave has 2 sisters.
 - Dave has 3 sisters.
 - Dave has 1 brother and 1 sister.
 - Dave has 2 brothers and a sister.

7. What is needed by a seed to germinate?

- a) Air
- b) Light
- c) Water
- d) Warmth

- 1) a and c only
- 2) a, c and d only
- 3) a, b and c only
- 4) All of the above

8. Water from undigested food is absorbed into our bodies. Which part of the digestive system performs this function?

- 1) Mouth.
- 2) Stomach.
- 3) Small intestines.
- 4) Large intestines.

9. Look at the table below.

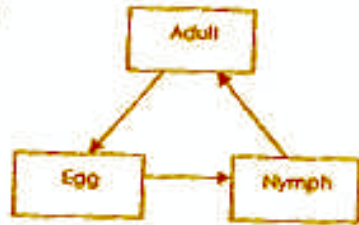
Group X	Group Y
Cow	Lion
Sheep	Hawk
Grasshopper	Frog

The animals are grouped according to _____.

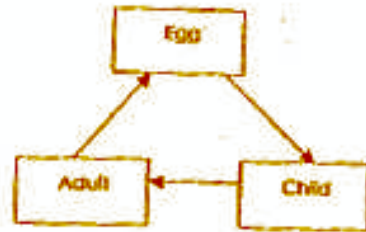
- 1) where they live
- 2) what they feed on
- 3) the number of stages in their life cycles
- 4) whether their young looks like the adults

10. Look at the following life cycles below. Which life cycle is drawn incorrectly?

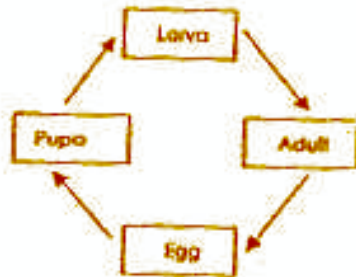
1)



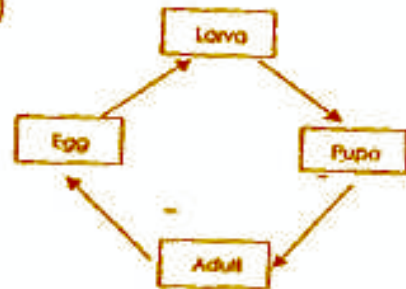
2)



3)

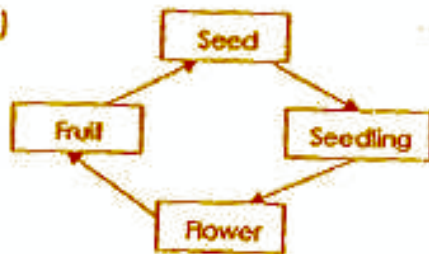


4)

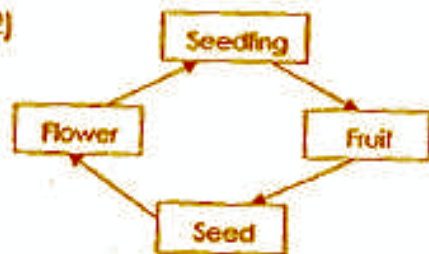


11. Which of the following shows the correct life cycle of a flowering plant?

1)



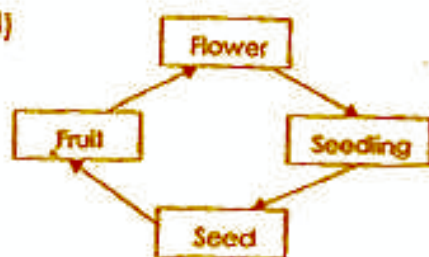
2)



3)



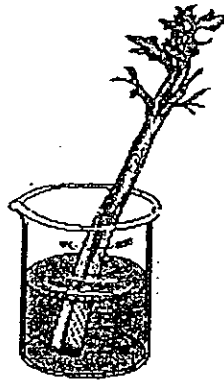
4)



12. Which of the following comparisons between respiration and photosynthesis is correct?

	Respiration	Photosynthesis
1)	Carried out by only animals	Carried out by only plants
2)	Occurs only at night	Occurs only during the day
3)	Requires oxygen	Produces oxygen
4)	Requires light energy	Requires light energy

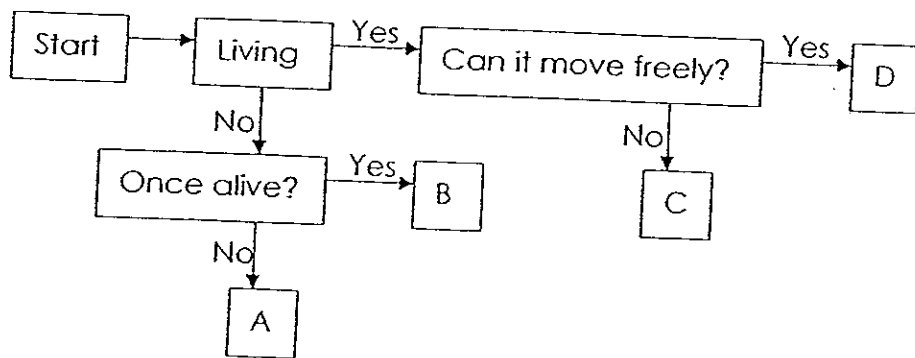
13. Wendy cut off the roots of a celery stalk and placed the stalk in a beaker of red-coloured water as shown.



What could Wendy have observed after 24 hours?

- 1) There was no change in the colour of the celery stalk.
- 2) Only the stem started to turn red.
- 3) The whole celery stalk turned red.
- 4) Only the leaves started to turn red.

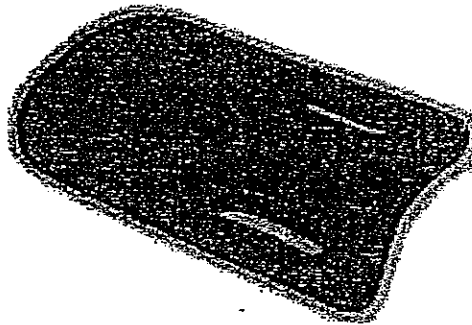
14. Study the chart below.



Which option is a suitable position to classify paper?

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

15. SwimTeam Company wants to make swimming boards and chose styrofoam as a material. Which of the following properties make styrofoam a suitable material for making swimming boards?



- a) Styrofoam can float on water.
- b) Styrofoam does not break or tear easily.
- c) Styrofoam is light so it can be carried easily.
- d) Styrofoam is soft so it would not injure anyone.

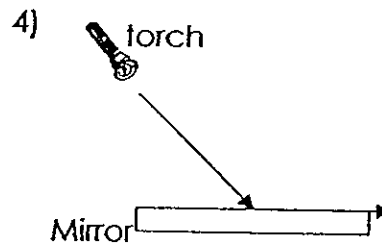
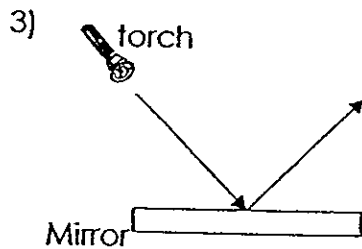
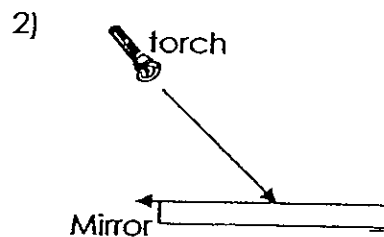
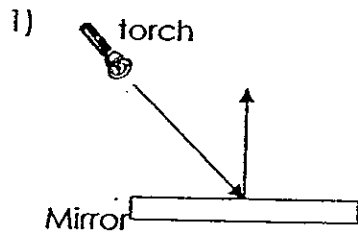
- 1) a, b and c only
- 2) a, c and d only
- 3) b, c and d only
- 4) All of the above.

16. Germaine wants to **demagnetise** a magnet. Which methods listed below can she use?

- a) By heating the magnet.
- b) By dropping the magnet.
- c) By passing electricity through the magnet.
- d) By stroking the magnet with a non-magnetic material.

- 1) a and b only
- 2) c and d only
- 3) b, c and d only
- 4) All of the above.

17. Which of the following diagram shows the path of light after it has been reflected by a mirror?



18. During a Science lesson, Annah shone a torchlight at the object shown below.

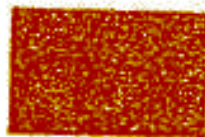


Which of the following shadows cannot be cast by the object below?

1)



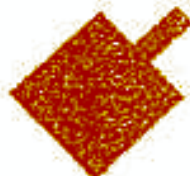
2)



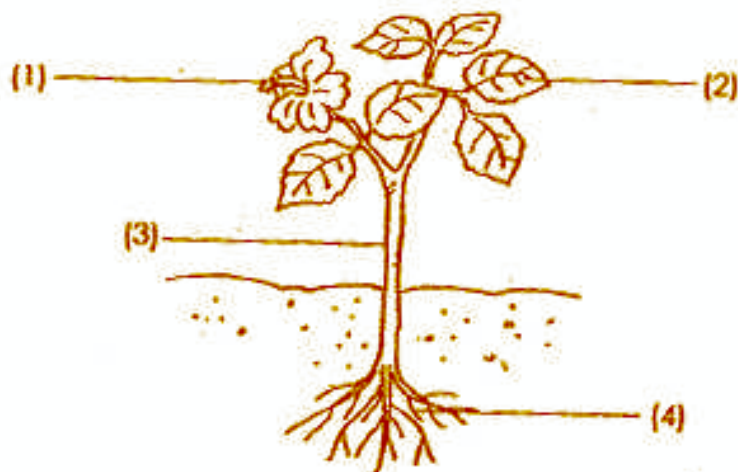
3)



4)

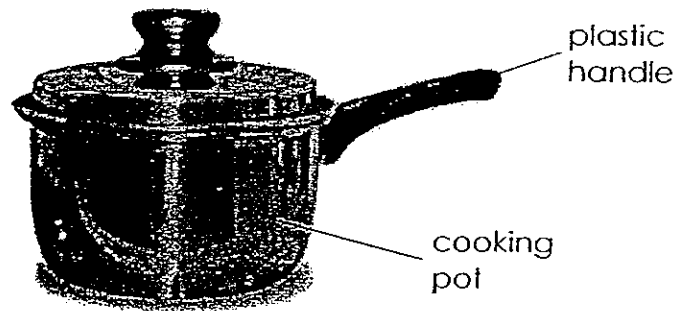


19. Look at the picture of the hibiscus plant below carefully.



Which part of the plant enables the plant to reproduce?

20. Why does a cooking pot have a plastic handle?



- 1) Plastic is a cheap material.
- 2) Plastic is a strong material.
- 3) Plastic is an insulator of heat.
- 4) Plastic is pleasant to the touch.

21. Charmaine has a fever. Which is the most suitable method for checking her body temperature?

- 1) By using a clinical thermometer.
- 2) By using a laboratory thermometer.
- 3) By asking someone else to feel your forehead.
- 4) By using a temperature sensor with a datalogger.

22. Study the following table.

	Has definite volume?	Has definite shape?
A	No	No
B	No	Yes
C	Yes	No
D	Yes	Yes

Which option describes a solid?

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

23. Which of the following methods can be used to find the mass of the rock?

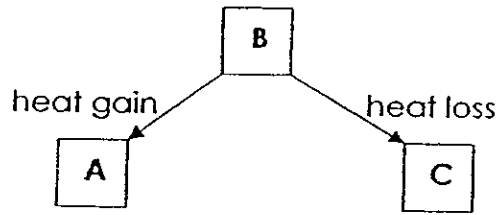
- a) Using a lever balance.
- b) Using an electronic scale.
- c) Putting the object in a measuring cylinder with some water.

- 1) a and b only
- 2) a and c only
- 3) b and c only
- 4) All of the above

24. Which of the following groups consists of only light sources?

- 1) Sun, Moon and Earth
- 2) Diamond, fire and lightning
- 3) Mirror, Television and torchlight
- 4) Light bulb, car headlights and star

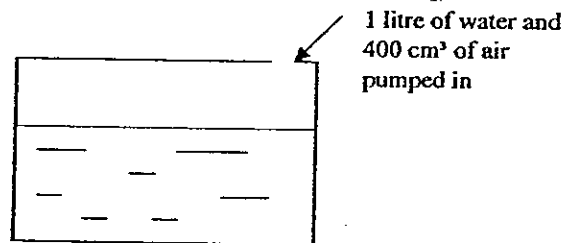
25. Study the following diagram.



A, B and C are different states of water. Which option correctly identifies A, B and C?

	A	B	C
1)	Solid	Liquid	Gas
2)	Liquid	Solid	Gas
3)	Gas	Liquid	Solid
4)	Solid	Gas	Liquid

26. Adam took a box that can contain 3 litres of water. He pumped 1 litre of water into the box. He then pumped 400 cm³ of air into the box. This is possible as _____.



- 1) air can be compressed
- 2) air has no definite shape
- 3) water can be compressed
- 4) water has no definite shape

27. Which of the following groups contains only magnetic material?

- 1) Gold, Iron, Steel
- 2) Iron, Nickel, Steel
- 3) Gold, Nickel, Silver
- 4) Aluminium, Cobalt, Iron

28. If a freely-suspended magnet is allowed to come to a rest, it will always point in a _____ direction.

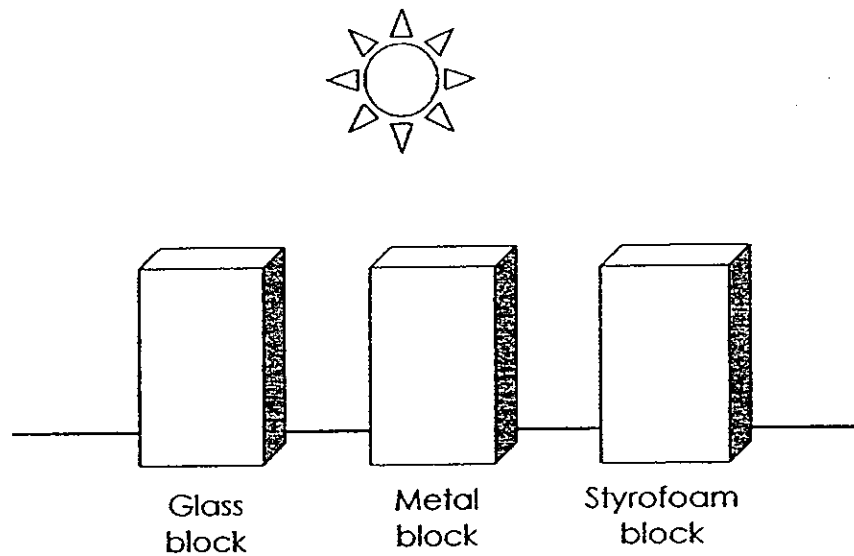


- 1) East-West
- 2) North-East
- 3) North-West
- 4) North-South

29. Which of the following groups consists of only opaque materials?

- 1) Wood, glass and cloth.
- 2) Metal, wood and cardboard.
- 3) Tracing paper, stone and metal.
- 4) Frosted plastic, frosted glass and cardboard.

30. John puts three blocks, made of different materials, under the sun as shown in the setup below. After 30 minutes, he measured the surface temperature of each block.



What is the purpose of his experiment?

He wants to find out _____.

- 1) whether air expands when heated
- 2) how heat travels through the blocks
- 3) which material is a good conductor of heat
- 4) how fast water can evaporate from the blocks

— — — End of Section A — — —

TAO NAN SCHOOL

PRIMARY 4 SCIENCE YEAR-END EXAMINATION – 2008

Name: _____ () Date: 23 October 2008

Class: P4 _____

Time: 8.00 a.m. to 9.30 a.m.

BOOKLET B

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

	Score	Marks
Section B		40

Section B (40 marks)

For questions 31 to 46, write your answers in the spaces provided.

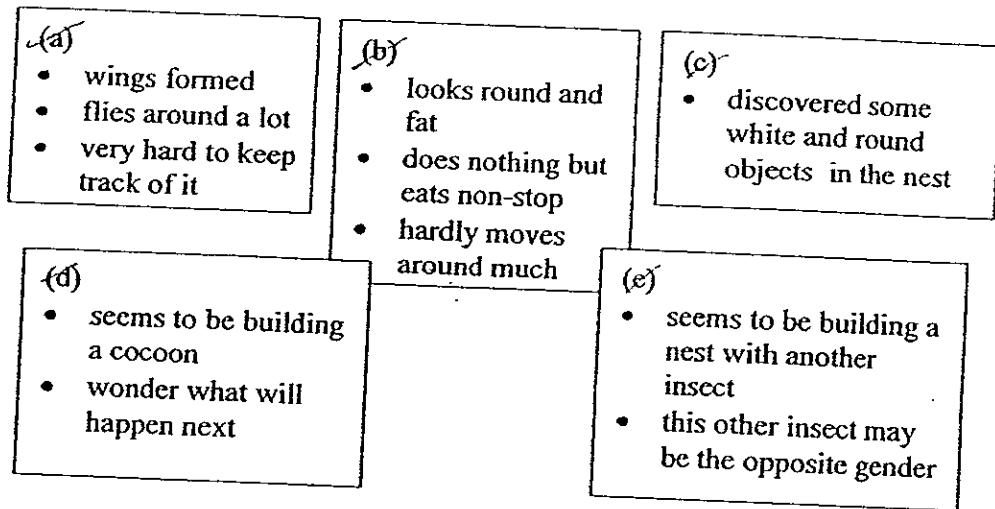
31. Classify the following objects in the table below under the correct headings. (2 marks)

Solid	Liquid	Gas

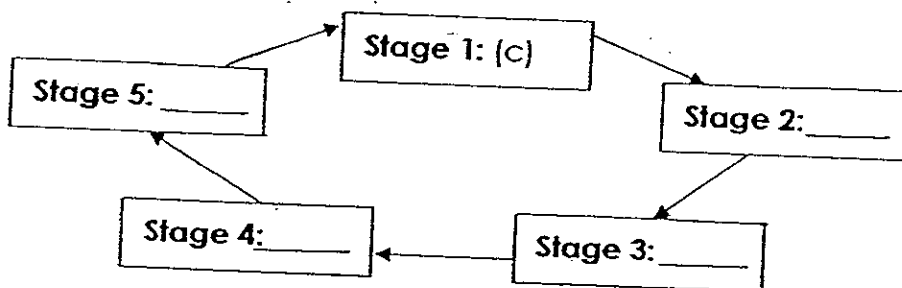
32. Jenny is jogging on the track.
Name all the organ system(s) that enable her to carry out her activity.

(2 marks)

33. Ross has discovered a new kind of insect. He gathered some of these insects and kept them in a tank for observation. He observed their life cycle and made notes of his observation. He labelled the cards (a) to (e). Unfortunately, Ross accidentally mixed up the order of his cards.



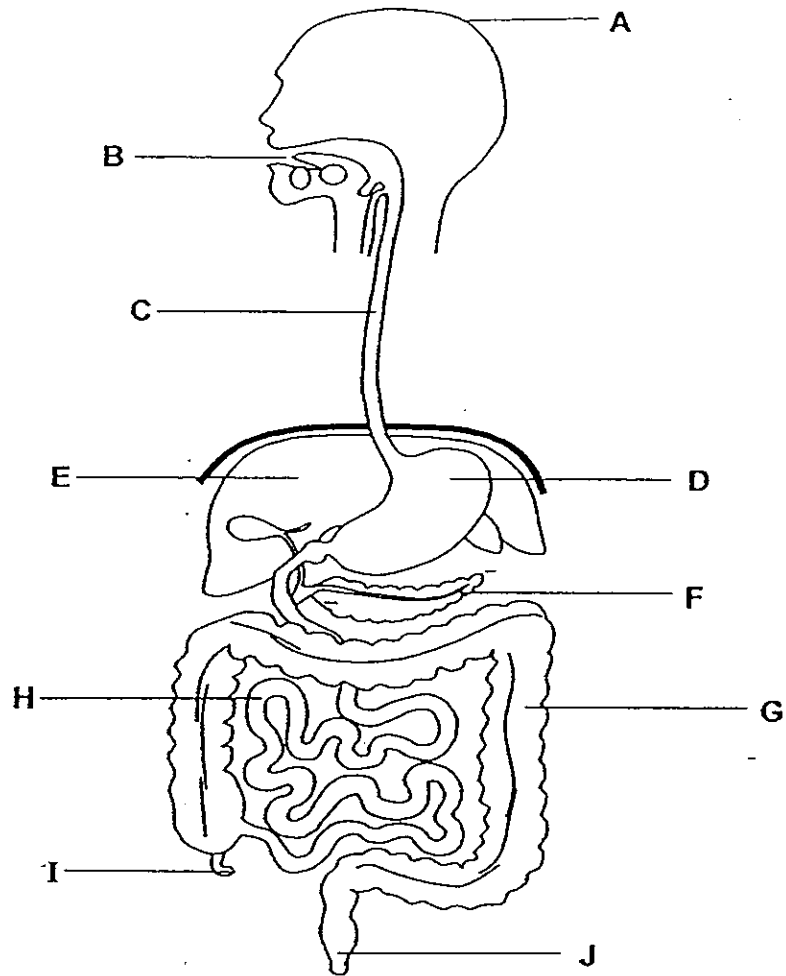
(a) Help Ross to arrange the notes in order of their life cycle by labelling it (a) to (e) in the boxes below. One of the stages has been done for you. (2 marks)



(b) Name Stage 1. (1 mark)

(c) If this insect was discovered to be spreading a dangerous disease to Man, at which stage would you be most successful in destroying it? Explain your answer. (1 marks)

34. The diagram below shows part of the human body.

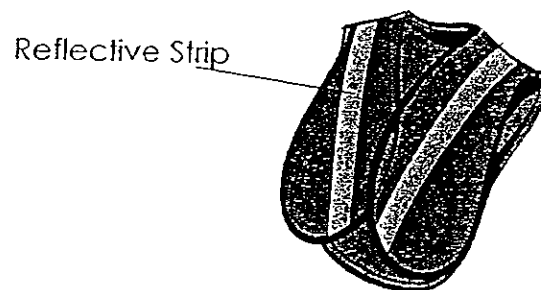


(a) Use the appropriate letters (A to J) from the diagram above. Write down in the correct order, the internal organ(s) involved in the digestion of food. (1 mark)

(b) What is the function of the part labelled D? (1 mark)

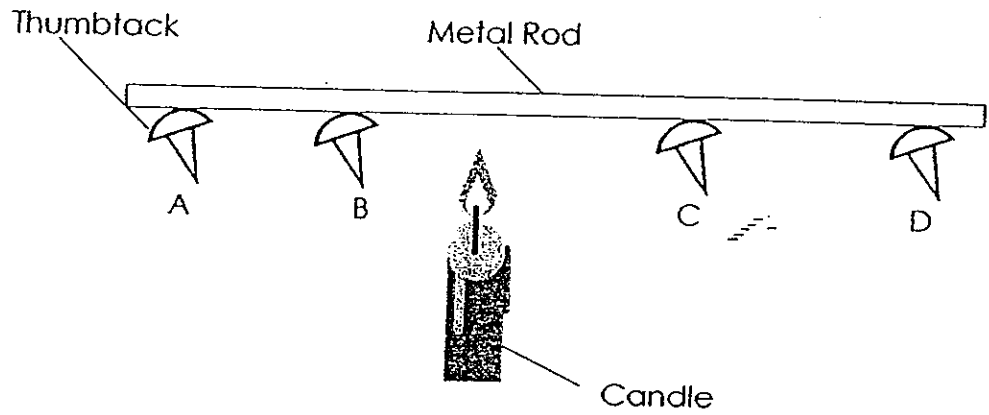
(c) How does the part in (b) work with H in the digestive system? (1 mark)

35. A traffic police officer wears a special vest, shown below, with reflective strips while directing traffic at night.



How do the reflective strips help keep the officer safe while directing traffic at night? (2 marks)

36. Kelly set up the following experiment. The thumbtacks are held onto a metal rod by wax. Kelly lit the candle and observed the setup for 30 minutes.

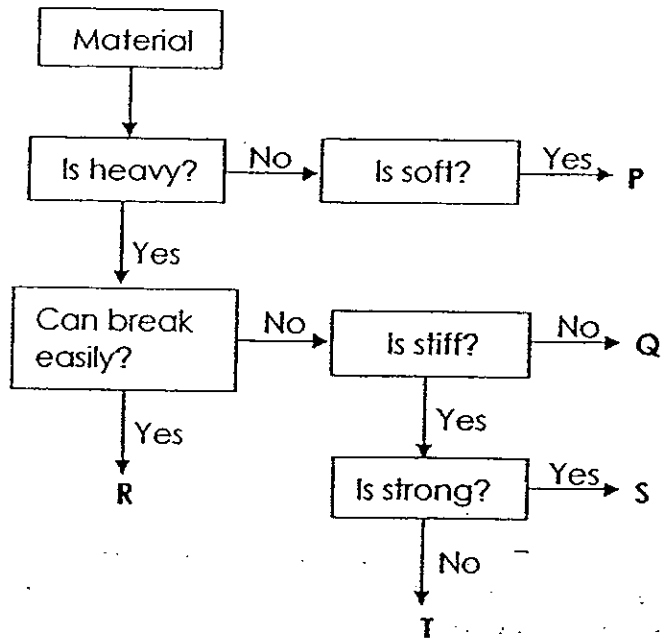


- (a) After 30 minutes, all the thumbtacks dropped. In which order would Kelly observe the thumbtacks dropping? Write the letters in the boxes below. (2 marks)
(Note – The setup is drawn to scale.)

First	→		Last

- (b) If Kelly was to repeat the experiment with a wooden rod instead of a metal rod, would she observe the same results? Explain your answer. (1 marks)

37. Study the chart below.



Based on the chart above, state one similarity and difference between material R and S. (2 marks)

Similarity: _____

Difference: _____

38. Taufik was given a magnet and 4 objects. He wanted to find out if the objects were magnets. He brought the magnet close to each of the objects and recorded his observations in the table below.

	Observations
Object A	Moved towards magnet
Object B	Moved towards magnet
Object C	Did not move at all
Object D	Moved away from magnet

Taufik then stated, "Object A and B must be magnets as they were attracted by the magnet."

- (a) Do you agree with Taufik's statement? Explain your answer. (1 mark)

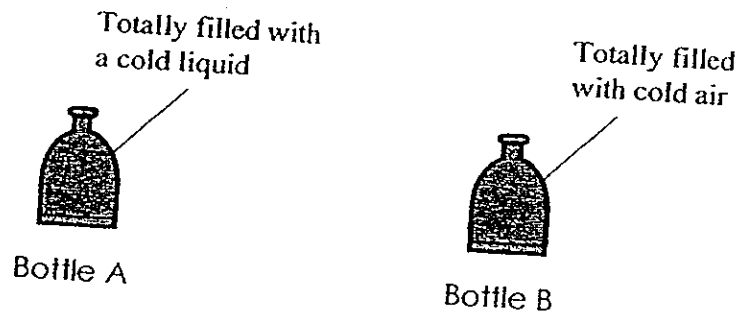
- (b) Which of the objects is/are definitely magnet(s)? Explain your answer. (1 mark)

39. Duncan was sleeping at night when he woke up at about midnight. Before he switched on the lights in his room, he noticed he was able to see some of the furniture in his room but not very clearly. He then made the following statement.

"I can see without switching on the lights in my room because my eyes give off light so I can see the furniture in my room."

- Do you agree with Duncan's statement? Explain your answer. (2 marks)

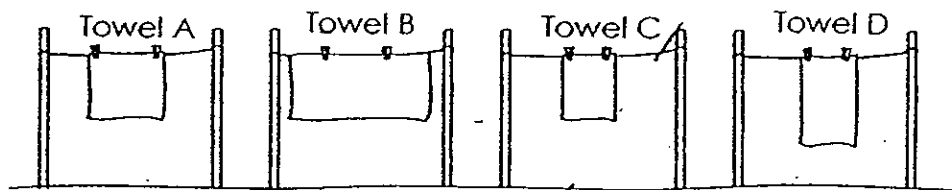
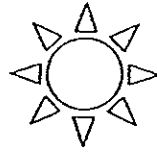
40. Adrian filled Bottle A totally with a cold liquid and filled Bottle B totally with cold air as shown below. He capped both glass bottles tightly and put them in a pail of hot water. After half an hour, Bottle A cracked while the Bottle B did not crack.



- (a) Explain what caused Bottle A to crack. (2 marks)

- (b) Explain why Bottle B did not crack at all. (2 marks)

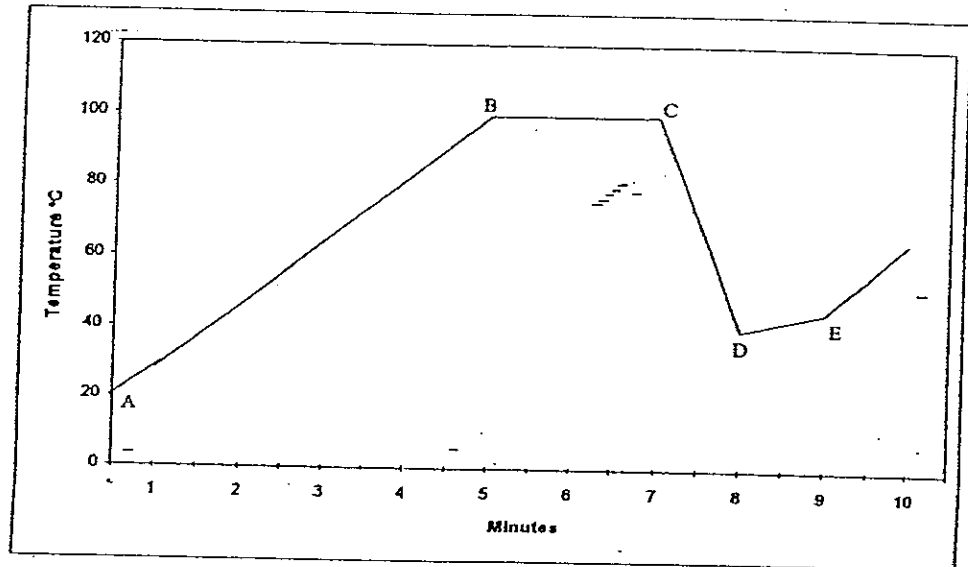
41. Four towels of the same material and size were folded in different ways. They were hung out to dry at the same place. The experimental set up is shown below.



Based on the experiment above, put a tick (\checkmark) in the appropriate box against each statement in the table below. (2 marks)

Statements	True	False	Not possible to tell
(a) The amount of exposed area of the towels affects the rate of drying.			
(b) Towel C will take a longer time to dry than towel A.			
(c) Towel B will absorb the most amount of water.			
(d) The wind caused the rate of drying to increase in all the towels.			

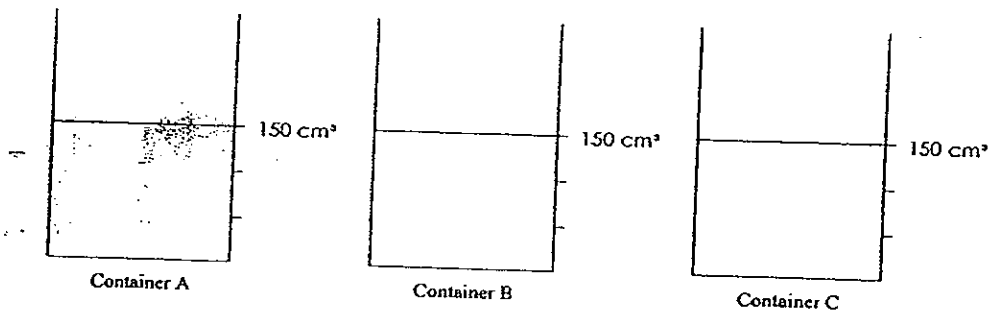
42. Fiona boiled a beaker of water for 15 minutes. She measured the temperature of the water with a thermometer and plotted the following graph using her measurements.



- (a) At which point did the water start to boil? (1 mark)

- (b). What could Fiona have done to cause the temperature to drop from Point C to Point D? (1 mark)

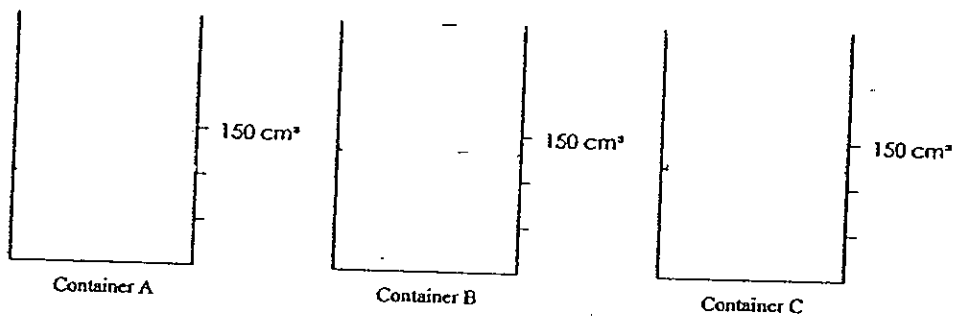
44. Christopher set up the following experiment to test the rate of evaporation of 3 different liquids.



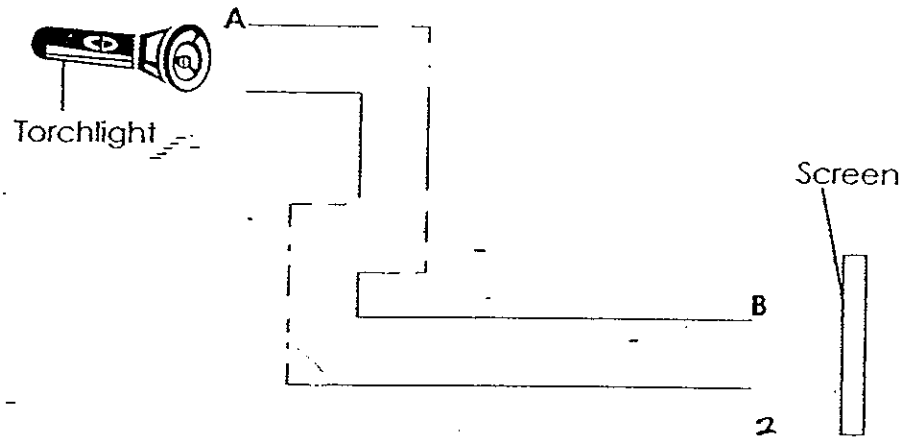
After leaving the beakers out in the sun for 4 hours, he recorded the following observations.

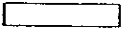
- Observation 1 – Liquid A evaporated faster than Liquid C.
- Observation 2 – Liquid B evaporated slower than Liquid C.

Using the above observations, draw the water level of the 3 different liquids in the beakers below. (3 marks)



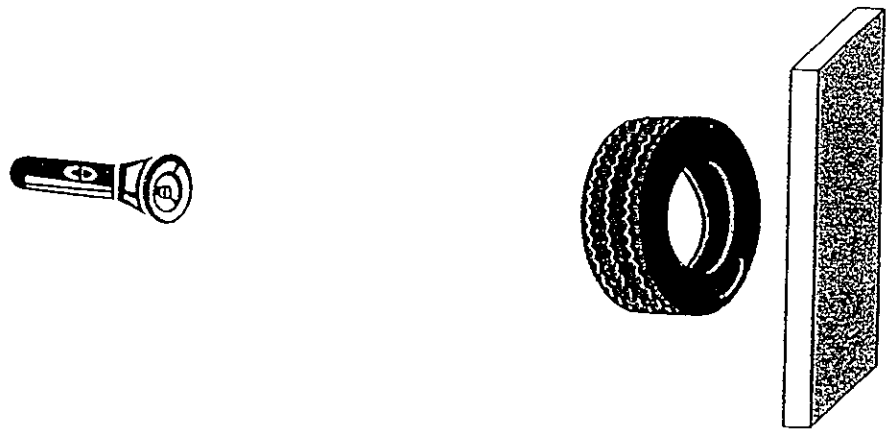
43. Rosie had the following setup. She wants to get the beam of light from the torchlight to shine onto the screen by entering through A and exiting through B using 4 mirrors.



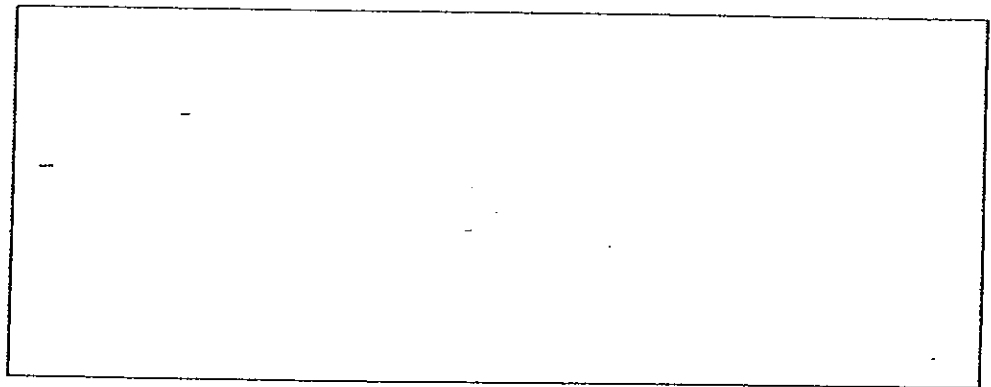
Use  to represent a mirror

- (a) How should Rosie position the mirrors? Draw your answer in the diagram above. (2 marks)
- (b) What property of light does the above setup show? (1 mark)

45. Look at the diagram below.



Draw the shadow cast by the fire in the space provided below.
(2 marks)



46. Gurmit conducted some tests on Materials A, B, C and D and recorded his results in the table below.

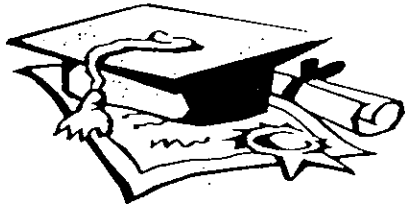
	A	B	C	D
Does it break when dropped?	No	Yes	No	Yes
Can it stretch?	No	Yes	Yes	No
Is it flexible?	Yes	No	Yes	No
Is it waterproof?	Yes	Yes	No	No

- (a) Which material should Gurmit use to make a T-shirt? Explain your answer. (1 mark)

- (b) Would you use Material B to make a toy for a baby? Explain your answer. (1 mark)

----- End of Section B -----





ANSWER SHEET

EXAM PAPER 2008

SCHOOL : TAO NAN PRIMARY SCHOOL
SUBJECT : PRIMARY 4 SCIENCE

TERM : SA 2

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
4	3	3	2	2	1	2	4	2	3	1	3	3	2	2	1	3
Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30				
4	1	3	1	4	1	4	3	1	2	4	2	3				

31) Solid: Powder, paper
Liquid: mist
Gas: carbon dioxide

32) It is the muscular system, skeletal system, respiratory system and circulatory system.

33) a) 1:c 2:b 3:d 4:a 5:e
b) Egg.

c) At stage B. It is the only time when the insect is not moving for a period of time, hence, you can destroy it quickly and easily.

34) a) B, C, D, H

b) It is called the stomach. It contains digestive juices that makes the food partially digested.

c) After the food is digested in D, the food moves to H to complete digestion of the food.

35) Light from the car read light reflect on the reflective strips. The reflective light from the reflective strip reflects to the driver's eyes, allowing them to see.

36)a)B, C, A, D

b)No. wood is a poor conductor of heat.

37)Similarity: They are both heavy.

Difference: Material B breaks easily but material S does not break easily.

38)a)No. object A and B could be a magnetic object instead of a magnet.

b)Object D. Only magnet can repel another magnet.

39)Light from outside the room enters the room and reflects off the furniture and reflects on Duncan's eyes.

40)a)The cold liquid in Bottle A cause it to expand, since it has no space to expand, it pushes itself out and caused the bottle to crack.

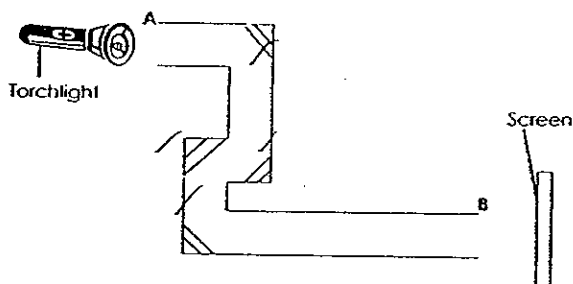
b)Although the cold air did expand when heated, the air in the bottle still can be compressed.

41)a)T b)T c)T d)Not

42)a)Point B.

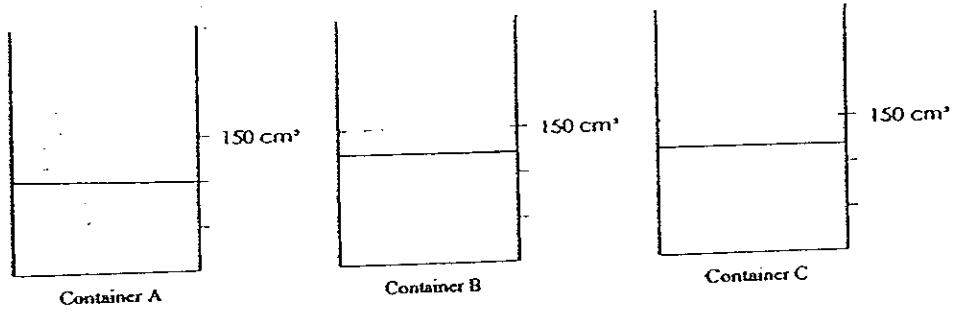
b)She added more water.

43)a)



b)Light travels in a straight line.

44)



45)



- 46) a) Material C. It can be straightened
b) No. The material bends when it is dropped, which will most likely happen if a baby handles it.