



CA1

## AI TONG SCHOOL

2005 CONTINUAL ASSESSMENT (1)

PRIMARY FOUR SCIENCE

**DURATION : 1hr 20 min**

**DATE: 3 MARCH 2005**

### INSTRUCTIONS

**Do not open the booklet until you are told to do so.  
Follow all instructions.  
Answer all questions.**

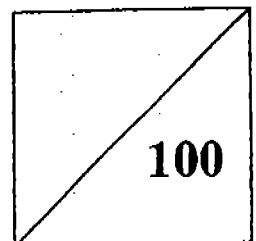
Name : \_\_\_\_\_

Class : Primary \_\_\_\_\_

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

Date : \_\_\_\_\_

Marks :



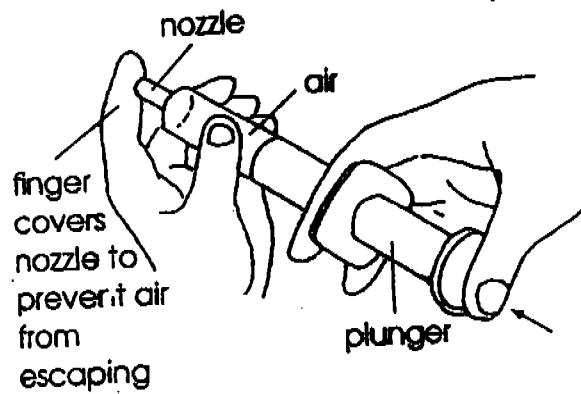
**Section A (40 marks)**

Choose the correct answer and shade its number (1, 2, 3 or 4) in the Optical Answer Sheet (OAS) provided.

1. Which one of the following cannot be classified as matter?

- ~~(1) milk~~
- ~~(2) bones~~
- ~~(3) carbon dioxide~~
- ~~(4) shadow~~

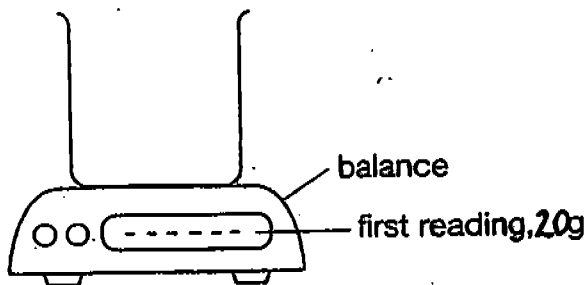
2. Study the diagram below.



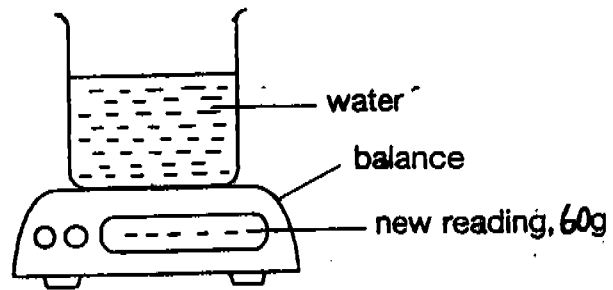
What will happen to the volume and mass of the air inside the syringe when the plunger is pushed in?

	Volume	Mass
<del>(1)</del>	decreases	remains the same
<del>(2)</del>	decreases	decreases
<del>(3)</del>	remains the same	decreases
<del>(4)</del>	remains the same	remains the same

3. A boy carried out an activity as shown in the diagrams below.



mass of empty beaker = 20g



mass of beaker and water = 60g

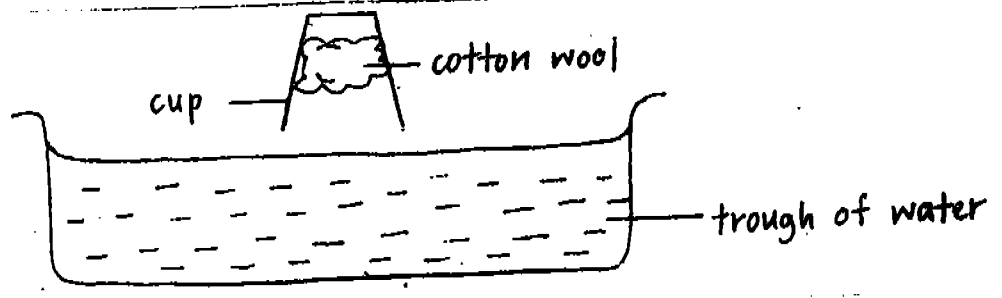
What was he trying to find out?

- (1) Air has mass.
- (2) Water has mass.
- (3) Air occupies space.
- (4) Water occupies space.

4. Which one of the following consists of objects in the same state?

- (1) marble, wooden block, rain, plasticine
- (2) water, oil, salt, ice cube
- (3) wind, steam, carbon dioxide, oxygen
- (4) air, jelly, orange juice, bean curd

5. A cup with some cotton wool in it is pushed into a trough of water as shown below.

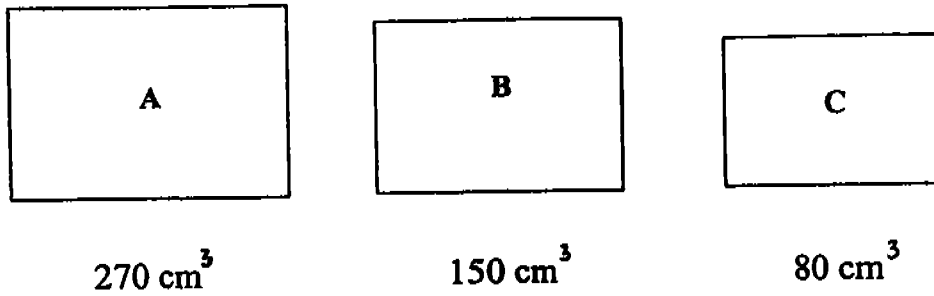


What will take place?

- ~~(1) The cup fills up with water.~~
  - ~~(2) The cotton wool remains dry.~~
  - ~~(3) The water level in the trough remains the same.~~
  - ~~(4) The cotton wool is soaked.~~
6. Study the information below. Which one of the following represents a block of clay?

	Definite shape	Definite volume
<del>(1)</del>	Yes	No
<del>(2)</del>	No	Yes
<del>(3)</del>	No	No
<del>(4)</del>	Yes	Yes

7. The diagram below shows three similar enclosed boxes filled with different amounts of air.



Which box (es) can be filled completely with  $150 \text{ cm}^3$  of air?

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

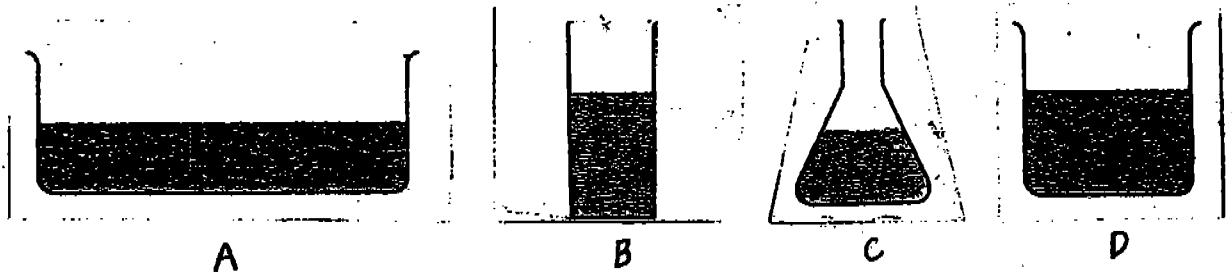
8. Which one of the following involves heat loss?

- ~~(1)~~ A candle burning.
- ~~(2)~~ Water freezing to ice.
- ~~(3)~~ A block of ice melting in the sun.
- ~~(4)~~ A kettle of water boiling.

9. Ice \_\_\_\_\_ at  $0^\circ \text{C}$ .

- ~~(1)~~ melts
- ~~(2)~~ boils
- ~~(3)~~ freezes
- ~~(4)~~ evaporates

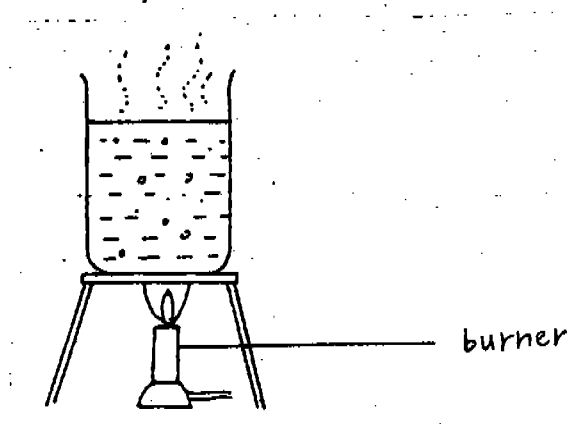
10. An equal amount of water was poured into four containers as shown below.



Starting with the container from which the water will evaporate the slowest, arrange the four containers in order of the evaporation rate of the water.

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

11. Study the diagram below.



What will the temperature of the water be after 10 minutes of reaching boiling point?

- (1) 90°C
- (2) 95°C
- (3) 100°C
- (4) 110°C

12. Weiming boiled some water. He poured the boiling water into a cup and put it on the table. He then took a thermometer and measured the temperature of the water in the cup. Which of the following would he observe?

- A: The thermometer gained heat.
- B: The liquid in the thermometer rose.
- C: The temperature of the water was  $100^{\circ}\text{C}$ .
- D: The temperature shown by the thermometer remained the same.

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

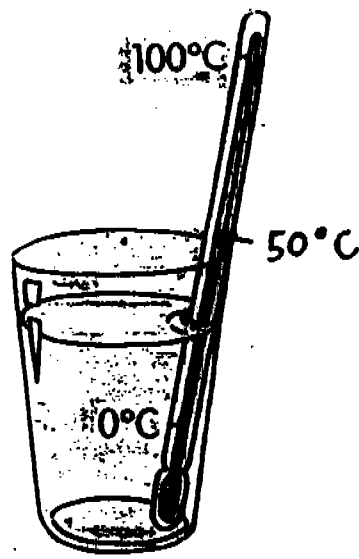
13. X, Y and Z are different states of the same matter.

- X takes on a fixed shape and cannot be compressed.
- When X is heated for a short while, it turns into Y and loses its shape. It cannot be compressed.
- When Y is heated further, it turns into Z and can be compressed.

Y is in the \_\_\_\_\_ state while Z is in the \_\_\_\_\_ state.

- ~~(1)~~ liquid, gaseous
- ~~(2)~~ solid, gaseous
- ~~(3)~~ solid, liquid
- ~~(4)~~ gaseous, liquid

14. Study the diagram below.



What is the temperature of the water in the glass?

- ~~(1) 20°C~~
- ~~(2) 35°C~~
- ~~(3) 50°C~~
- ~~(4) 85°C~~

15. How are green plants different from animals?

	Green Plants	Animals
<del>(1)</del>	Make their own food	Cannot make their own food
<del>(2)</del>	Are non-living things	Are living things
<del>(3)</del>	Do not need air, water and food to grow	Need air, water and food to grow
<del>(4)</del>	Cannot reproduce	Can reproduce



16. The larva of a butterfly is also known as a \_\_\_\_\_.

- ~~(1)~~ mealworm
- ~~(2)~~ caterpillar
- ~~(3)~~ fruit fly
- ~~(4)~~ silkworm

17. How are the spores of a fungus carried to other places to be reproduced once they are released?

By \_\_\_\_\_.

- ~~(1)~~ water
- ~~(2)~~ splitting action
- ~~(3)~~ animals
- ~~(4)~~ wind

18. Study the information below.

A

Bird's nest fern  
Moss  
Stag's horn fern  
Maidenhair fern

B

Sunflower  
Orchid  
Heliconia  
Frangipani

What would be an appropriate heading for A and B?

A

- ~~(1)~~ Poisonous Plants
- ~~(2)~~ Non-flowering Plants
- ~~(3)~~ Green Plants
- ~~(4)~~ Leafy Plants

B

Non-poisonous Plants  
Flowering Plants  
Non-green Plants  
Non-leafy Plants

19. Which of the following are true of fungi?

- A: Fungi are plants and can make their own food.
- B: Fungi break down their food into substances that they can absorb.
- C: Puff balls and Jew's ears are not types of fungi.
- D: Fungi are normally found on living things, rotting trunks and decomposing food.

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

20. The diagram below shows a seedling.

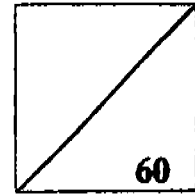


At this stage of growth, how does the plant get its food?  
From the \_\_\_\_\_

- ~~(1)~~ shoot
- ~~(2)~~ soil
- ~~(3)~~ stem
- ~~(4)~~ seed

Name: \_\_\_\_\_ ( ) →

Marks:



Class: \_\_\_\_\_

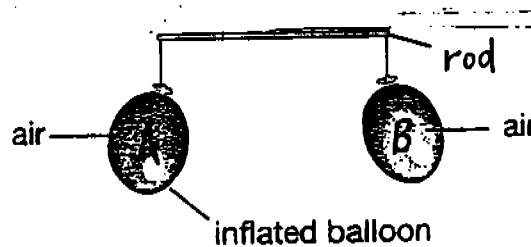
**Section B (30 marks)**

Fill in the blanks with the correct answers. Each blank is to be filled in with only one word.

21. Mass is the amount of \_\_\_\_\_ in an object.

\_\_\_\_\_ is the amount of space that an object occupies.

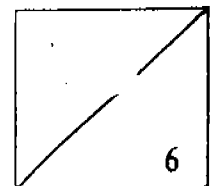
22. Study the diagram below.



Two balloons, A and B, are filled with the same amount of air. Some air is then let out of Balloon B. Now, there is a \_\_\_\_\_

amount of air in Balloon A than in Balloon B. As such, the rod will tilt upwards on the right side. This experiment shows that air has

\_\_\_\_\_.



23. Study the information below and fill in the blanks accordingly.

Process	Change in state	Heat transfer
(a) Freezing	liquid to solid	heat _____
(b) Melting	_____ to liquid	heat gain

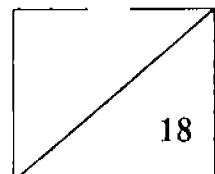
24. Tiny living things like yeast and \_\_\_\_\_ are called

25. A seed needs water, \_\_\_\_\_ and \_\_\_\_\_ before it can germinate.

26. A young cockroach is called a \_\_\_\_\_. It looks very much like the adult, but it is smaller and has no \_\_\_\_\_.

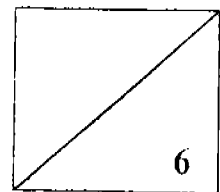
27. After the eggs of the chicken are laid, the hen usually sits on them to provide \_\_\_\_\_ for the eggs. The eggs will hatch after \_\_\_\_\_ days.

28. Solids cannot be \_\_\_\_\_ because they have a definite \_\_\_\_\_ and volume.



29. When water gains heat, it changes from the \_\_\_\_\_ state to the \_\_\_\_\_ state.

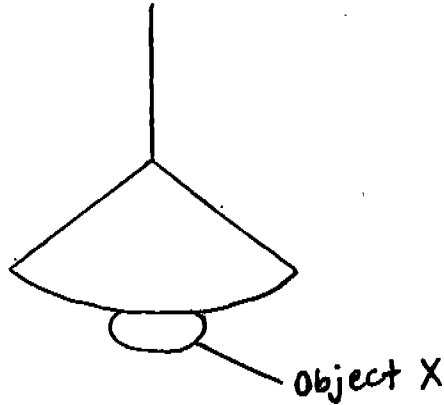
30. Some plants cannot stand upright because they have weak \_\_\_\_\_ . They creep on the ground or rely on other plants, walls and fences for \_\_\_\_\_ .



**Section C (30 marks)**

Answer all the questions in the spaces provided.

31. Study the diagram below.



(a) What does object X produce when it is turned on?

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

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

(2 marks)

(b) Can your answers in (a) be classified as matter?

\_\_\_\_\_

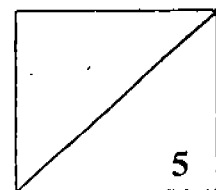
(1 mark)

(c) Explain your answer in (b).

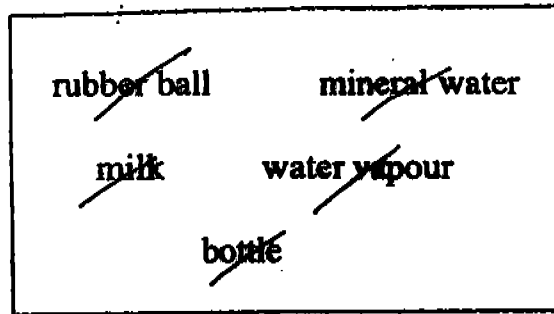
\_\_\_\_\_

\_\_\_\_\_

(2 marks)



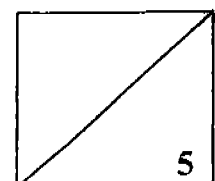
32.



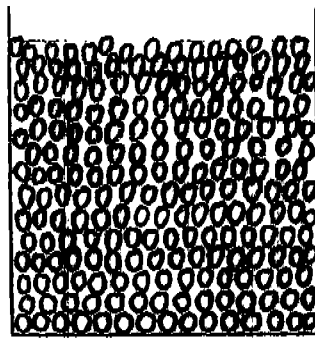
Study the things listed in the box above. Classify them in the table below.

Properties	Definite shape	No definite shape
Definite volume		
No definite volume		

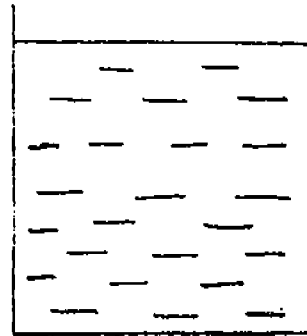
(5 marks)



33. Study the diagrams below.



Container Y filled with marbles



Container Z filled with water

(a) What are the states of matter in Container Y?

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

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

(b) What is the state of matter in Container Z?

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

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

(3 marks)

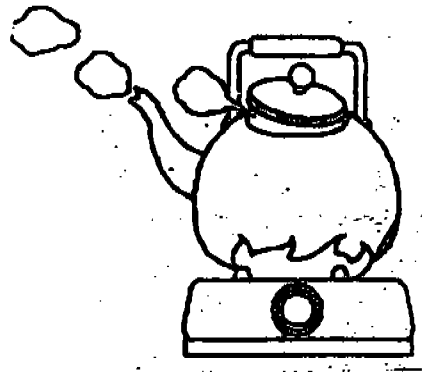
(c) If the contents of Container Z are poured into Container Y, there will be a change in the states of matter in Container Y. Explain why there is a change.

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34.



Danny boiled some water in a kettle on a stove as shown in the diagram above. When the water had reached boiling point, Danny measured its temperature with a thermometer. A 'white cloud' was also observed coming out of the kettle's spout. Danny concluded that the 'white cloud' was steam.

(a) What is temperature?

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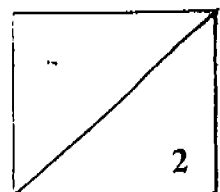
(1 mark)

(b) What would Danny observe from the liquid in the thermometer when the thermometer was placed in the kettle of water?

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(1 mark)



(c) How would Danny know that the water had reached boiling point?

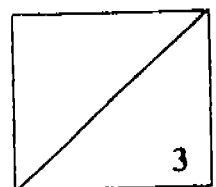
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(1 mark)

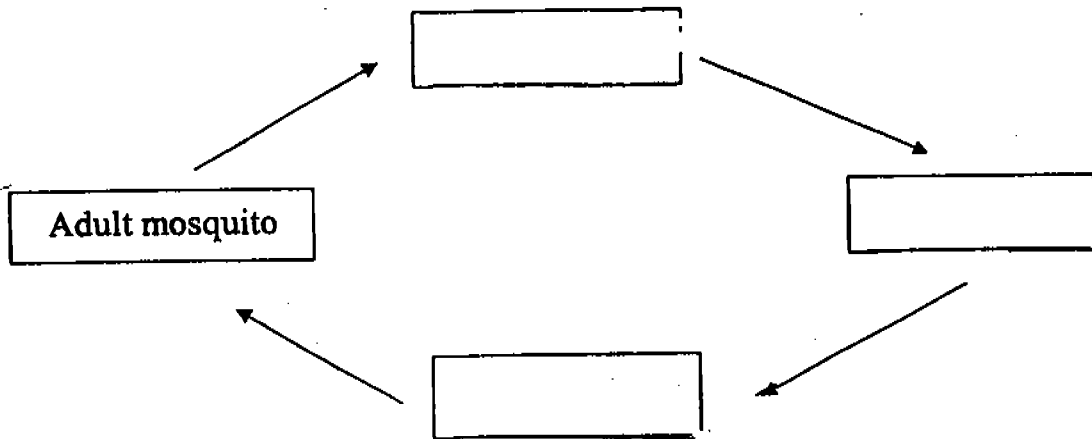
(d) Was Danny right when he concluded that the 'white cloud' was steam? Explain your answer.

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35. The diagram below shows the life cycle of a mosquito.



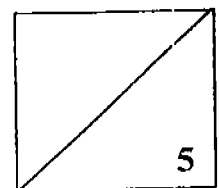
(a) Fill in the blanks with the correct words to complete the diagram.  
(3 marks)

(b) Name two other animals which have the same number of stages in its life cycle.

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

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

(2 marks)



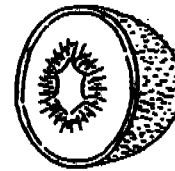
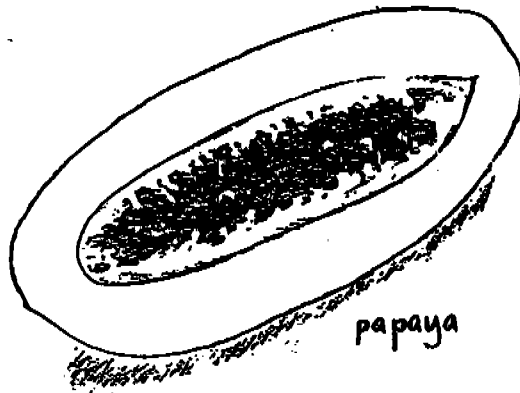
36. When a fruit is cut open, seeds can usually be seen.

(a) Why are seeds important in the development of a plant?

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To answer parts (b), (c), (d) and (e), study the diagrams below.



kiwi fruit

(b) State ONE similarity between the papaya and the kiwi fruit.

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(1 mark)

(c) State ONE difference between the papaya and the kiwi fruit.

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(d) Name another fruit which is similar to the papaya.

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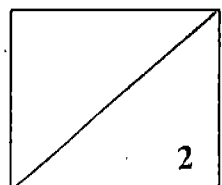
(1 mark)

(e) State ONE characteristic of the fruit named in (d) which makes it similar to the papaya.

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**End of paper**



AI TONG SCHOOL  
2005 CONTINUAL ASSESSMENT 1  
PRIMARY FOUR  
SCIENCE

- 1) 4
- 2) 2
- 3) 2
- 4) 3
- 5) 2
- 6) 4
- 7) 4
- 8) 2
- 9) 1
- 10) 3
- 11) 3
- 12) 3
- 13) 1
- 14) 2
- 15) 1
- 16) 2
- 17) 4
- 18) 2
- 19) 3
- 20) 4
- 21) matter
- 22) bigger
- 23) a) loss b) solid
- 24) bacteria micro-organisms
- 25) air warmth
- 26) nymph wings
- 27) warmth 21
- 28) compressed shape
- 29) liquid gaseous
- 30) stems support
- 31) a) light b) warmth
- b) No
- c) They have no mass or occupy space
- 32) rubber ball milk
- bottle mineral water
- water vapour
- 33) a) i) gas ii) solid
- b) i) liquid b) solid
- c) The water took up the space previously occupied by the air.
- 34) a) Temperature is to measure how hot or how cold the liquid is.
- b) It reached 100°C.
- c) Steam is being produced.
- d) No. Steam is in the gaseous state, they cannot be seen.
- 35) a) egg b) i) butterfly
- pupa larga ii) moth
- 36) see above