JUNIOR LYCEUM ANNUAL EXAMINATIONS 2004
Educational Assessment Unit – Education Division

FORM 1 **INTEGRATED SCIENCE** **Time 1 hr 30 min**

Name …… **Class** …….

ANSWER ALL QUESTIONS

1) a) Look at the list of things in the box below.

Shark, train, car, water, owl, tree, sun.

Sort the **living things** and the **non-living things** into two columns.

Living things	**Non living things**

(7 marks)

b) Animals are living things. Which **three** things do **all** animals do? Tick (✓) **three** boxes.

lay eggs	☐	grow	☐	fly	☐
walk	☐	swim	☐	feed	☐
Get rid of waste	☐	see	☐	talk	☐

(3 marks)

c) Use this key to identify the insects shown in the pictures. Write the names in the spaces below.

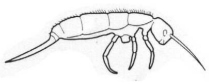
1 Does it have wings? if yes go to **2**, if no go to **4**

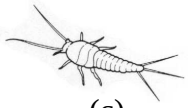
2 Does it have two wings? if yes it is a FLY, if no go to **3**

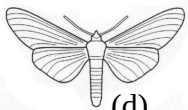
3 Does it have big wings? if yes it is a MOTH, if no it is a FLYING ANT

4 Does it have three tails? if yes it is a SILVER-FISH, if no it is a SPRINGTAIL


(a)


(b)


(c)


(d)


(e)

(a) _____ (b) _____ (c) _____

(d) _____ (e) _____ (5 marks)

2) a) Students in a class were asked to mark their favourite sport on a chart and here is the result:

Sports	**Students' preference**	**Total**
Football	/ / / / / / / /	
Netball	/ /	
Volleyball	/ / / / / /	
Basketball	/ / / / /	
Swimming	/ / / / / / /	

(i) Fill in the total number of preferences for each sport on the chart.

(5 marks)

(ii) Draw a bar chart of the result using one column for each sport. Write the sport under each column:

10					
9					
8					
7					
6					
5					
4					
3					
2					
1					

(5 marks)

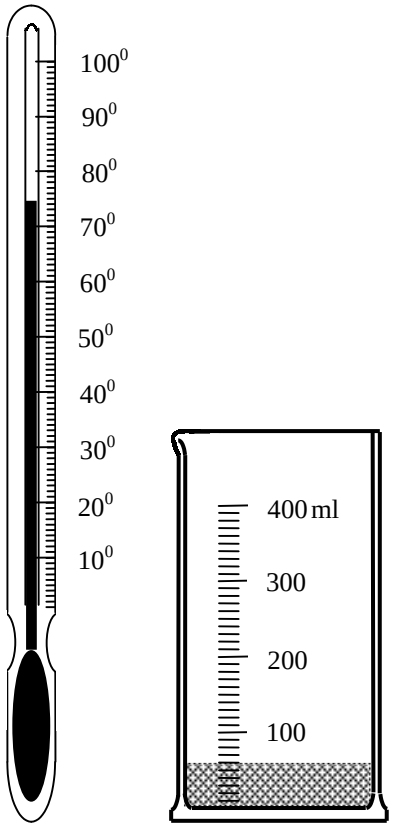
b) This question is about a measuring instrument. Fill in the spaces below:

We measure the mass with a _____.

The mass of an object is measured in _____.

(2 marks)

c) These are two **measuring instruments.**



(i) What does the thermometer measure?

_____

(ii) What does the measuring cylinder measure?

_____

(iii) What is the reading on the thermometer?

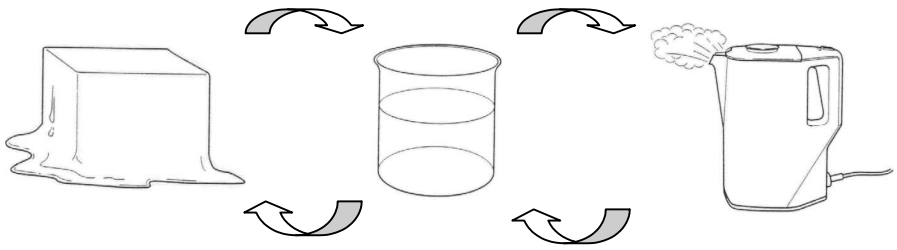
_____

(iv) What is the reading on the measuring cylinder?

_____

(4 marks)

3) a) This question is about the states of matter. What **changes** are the arrows showing in the diagrams? Write your answers on the lines provided.



_____ _____

_____ _____

(4 marks)

b) Place the correct ending for each sentence below in the space provided:

(can slide around each other), (can move freely), (cannot move from place to place).

(i) The particles in iron _____.

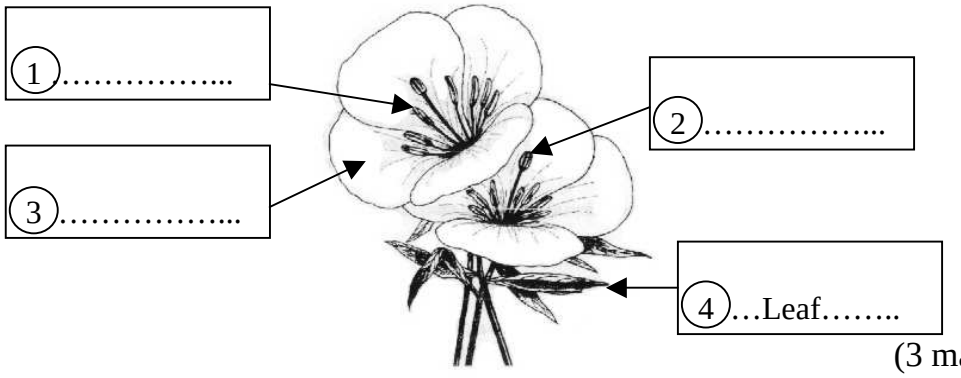
(ii) The particles in oxygen _____.

(iii) The particles in water _____.

(3 marks)

4) This question is about **plants**.

a) Write in the boxes the correct name for each part of the plant.
One has been done for you.



(3 marks)

b) The table below describes what these four parts of the plant do.
Write the correct **number** of the part of the plant above next to what the part does.
One has been done for you.

Number	What the part of the plant does
4	makes food using sunlight
◯	produces pollen
◯	receives pollen
◯	attracts insects for pollination

(3 marks)

5) a) Divide these objects into **elements** and **compounds** and write them in the table below:

oxygen, water, chlorine, gold, sodium chloride, carbon dioxide.

Elements	Compounds

(6 marks)

b) Give the **names** and **symbols** of

	Name	**Symbol**	**Name**	**Symbol**
(i) two metals				
(ii) two non-metals				

(8 marks)

c) Tick (✓) the statements that are true about **metals**.

(i) They are shiny ☐

(ii) They are transparent ☐

(iii) They are usually insulators ☐

(iv) Most of them are solids at room temperature ☐

(v) They conduct electricity ☐

(3 marks)

6) a) Write the **main** form of energy in each picture below:





_____ _____ _____ _____ _____

(5 marks)

b) In each sentence below, fill in the spaces with the correct form of energy.

(i) When the light bulb is switched on, electrical energy is changed into

_____ energy.

(ii) When the electric kettle is working _____ energy is changed into

_____ energy.

(iii) When the gas cooker is used, _____ energy is changed into

_____ energy.

(iv) When the radio is on,_____ energy is changed into

_____energy.

(7 marks)

c) Most of the world's electrical energy comes from the following 4 sources:

coal, moving water for hydroelectric power, oil and gas

(i) Which three of them are fossil fuels? _____, _____,

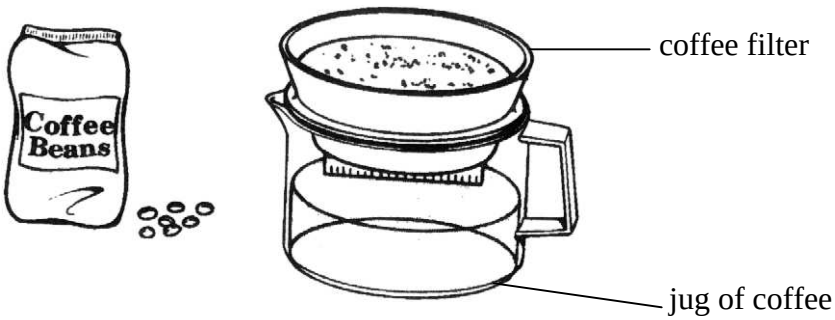
_____.

(ii) Which one does not cause harm to the environment? _____.

(iii) Which one is renewable? _____.

(5 marks)

7) John ground some coffee beans into little pieces. He put them into a coffee filter and poured some boiling water over them to make a jug of coffee.



a) Complete the sentences below. For each sentence, choose **one** of the following words.

insoluble, soluble, solution, solvent.

(i) The liquid in the jug is brown because parts of the coffee beans are

_____ in water.

(ii) Some bits of coffee beans are left on the filter because they are

_____ in water.

(iii) The brown liquid which drops from the filter is a _____ of

coffee (3 marks)

b) How could John get dry, solid coffee from the brown liquid in the jug of coffee?

_____

_____

(2 marks)

c) John tried making coffee in the same way using cold water. He used the same amount of cold water and ground up coffee beans.

(i) The liquid in the jug was a lighter colour. Why was this?

_____

_____

(2 mark)

(ii) How much solid coffee could John get back from this liquid? Tick (✓) the correct box.

more than before	☐
the same as before	☐
less than before	☐
none	☐

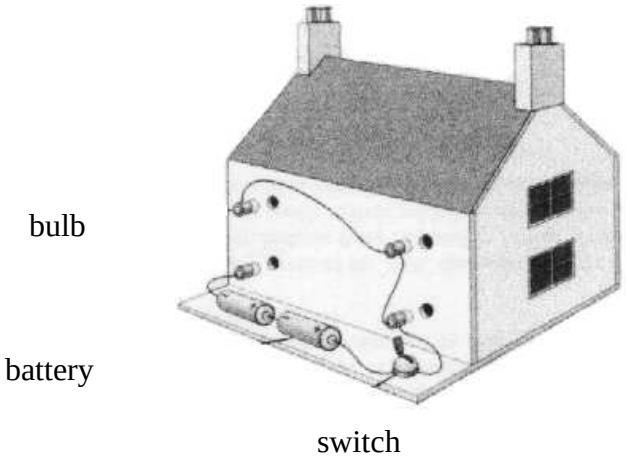
(1 mark)

8) a) Peter did an experiment to see whether the following things are conductors or insulators. He recorded his results in a table. Complete the table of results to show what he found by putting a tick (✓) in the correct box.

	bulb lights	**bulb does not light**
Steel fork		
Plastic comb		
Wooden spoon		
Aluminium foil		

(4 marks)

b) Alice connects four light bulbs for her model house as shown. She puts the bulbs into the holes in the back wall.



(i) When Alice turns the switch on, the bulbs do **not** light up. The batteries are new. None of the bulbs is broken. Why do the bulbs **not** light up?

_____ (2 marks)

(ii) Alice makes the circuit work. When she turns the switch on, the bulbs are **not** very bright. What must Alice add to the circuit to make the bulbs brighter?

_____ (2 marks)

(iii) The four bulbs in the circuit are the same. Which statement is correct? Tick (✓) the correct box.

Each bulb has the same brightness. ☐

Each bulb has a different brightness. ☐

The bulbs at the top are brighter. ☐

The bulbs at the bottom are brighter. ☐

(2 marks)

(iv) Show how Alice made **the circuit work** by drawing a diagram of the circuit in the space provided, using **symbols**

(4 marks)