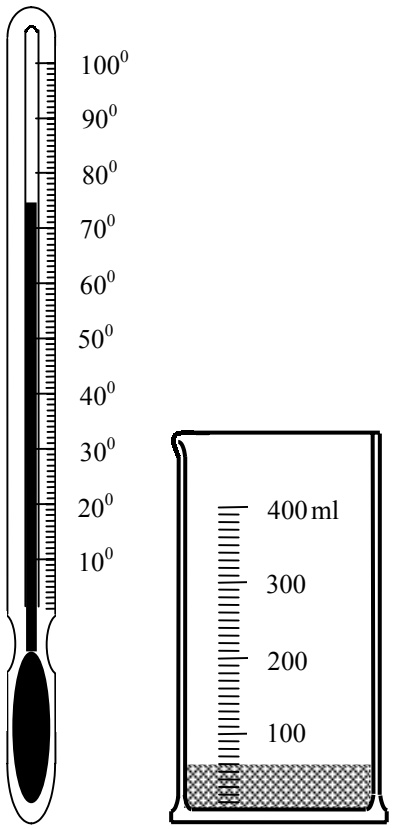
SECONDARY SCHOOL ANNUAL EXAMINATIONS 2004
Educational Assessment Unit – Education Division

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

Name …… **Class** ……

ANSWER ALL QUESTIONS

1) a) 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)

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

We measure the mass with a _____.

The mass of an object is measured in _____.

(2 marks)

c) 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)

2) 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.

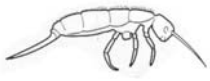
1 Does it have wings? — if yes go to **2**, if no go to **4**

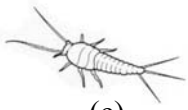
2 Does it have two wings? — if yes it is a FLY, if no go to **3**

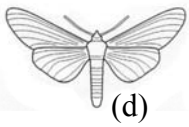
3 Does it have big wings — if yes it is a MOTH, if no it is a FLYING ANT

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)

3) 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? _____, _____, _____.

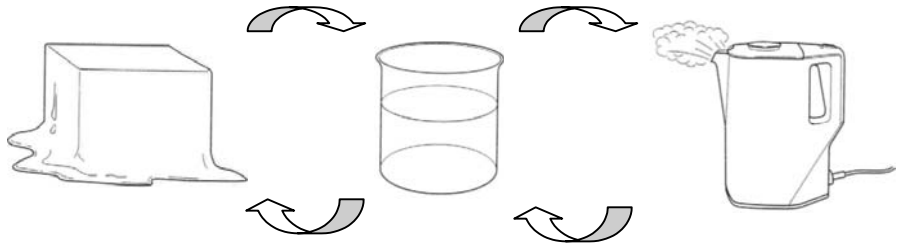
(ii) Which one does not cause harm to the environment? _____.

(iii) Which one is renewable? _____.

(5 marks)

4) 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 _____.

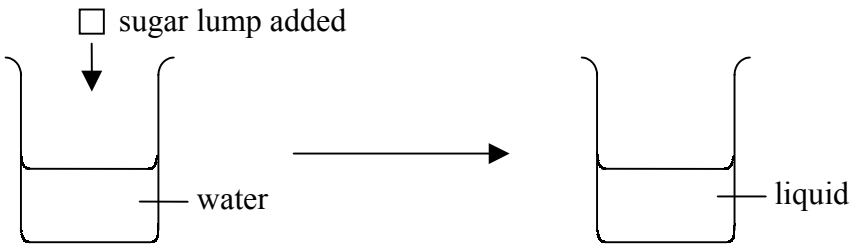
(ii) The particles in oxygen _____.

(iii) The particles in water _____.

(6 marks)

5) a) Look at the diagram. Write down the missing words in the sentences below choosing from the words given.

solute **solution** **insoluble** **solvent**



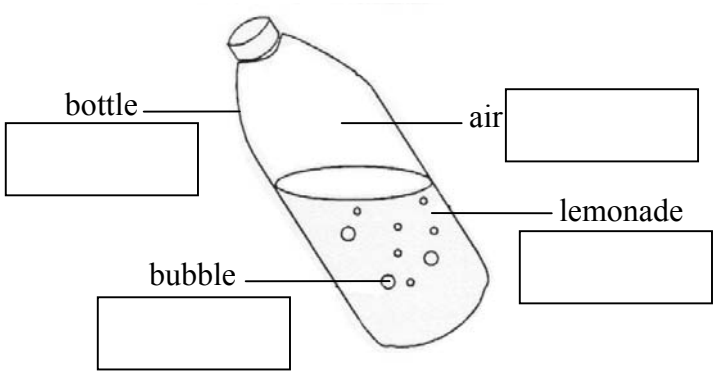
(i) The water is the _____. (ii) The liquid is the _____.

(iii) The sugar is the _____.

(3 marks)

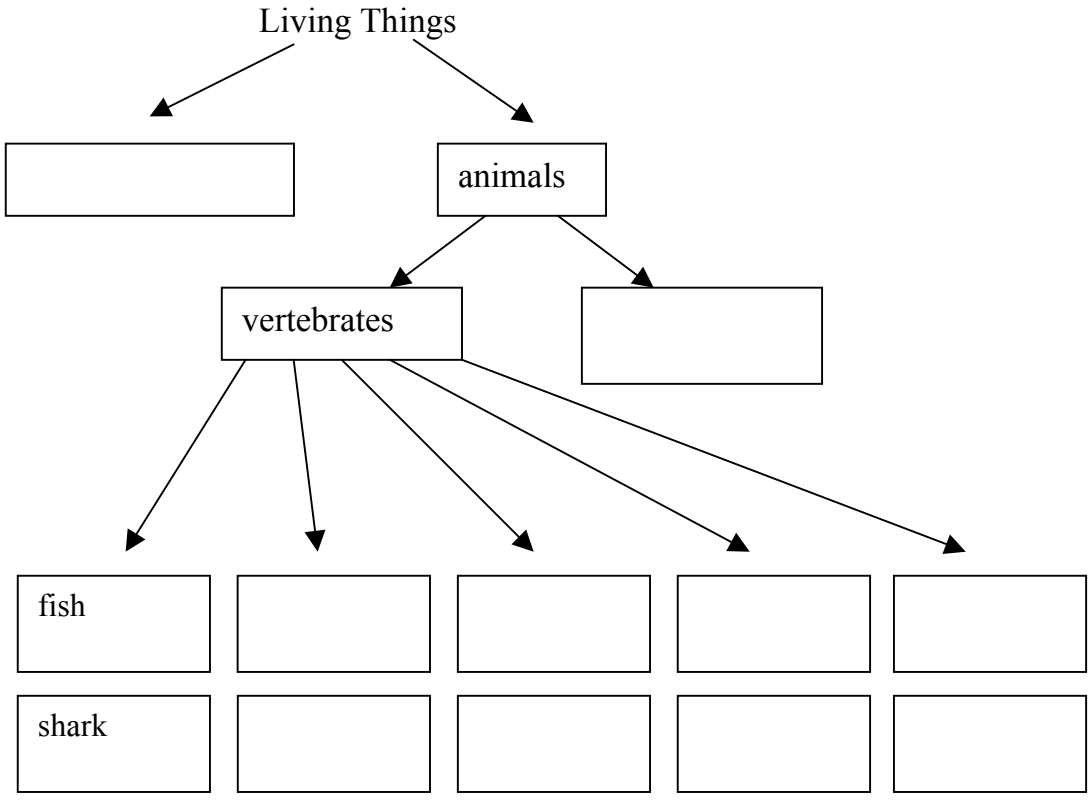
b) The plastic bottle has lemonade in it. Write in the boxes the parts which are:

solid	liquid	gas



(4 marks)

6) Things can be divided into different groups. Fill in the missing words in the diagram below:



GROUP	fish				
EXAMPLE	shark				

(10 marks)

7) 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)

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) Some children made these circuits to light a bulb

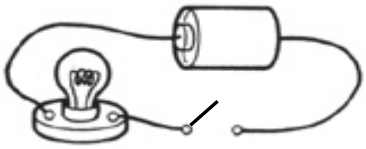


Fig 1

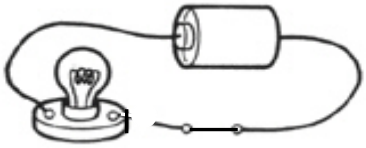


Fig 2

(i) Write the names of **two** parts of the circuit.

_____ _____ (2 marks)

(ii) In both circuits the bulb **did not light**.

Complete these sentences to say why.

In Fig 1, the bulb did not light because _____

_____

In Fig 2, the bulb did not light because _____

_____

(2 marks)