

SECONDARY SCHOOL ANNUAL EXAMINATIONS 2009

Directorate for Quality and Standards in Education
Educational Assessment Unit

FORM 1

INTEGRATED SCIENCE

TIME: 1 hr 30 min

Name: _____

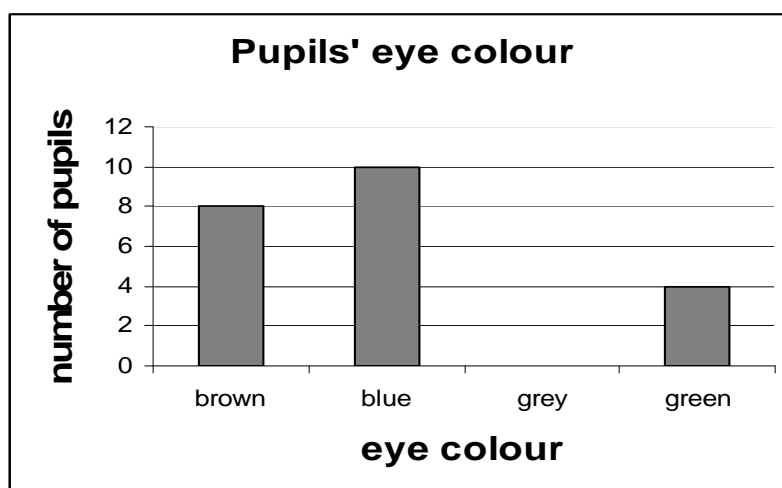
Class: _____

Answer all the following questions

1. Safety in the laboratory is very important.
Write down TWO safety rules you have to follow when doing experiments.

(2 marks)

2. Class 1.03 are investigating eye colour. Lisa and Jane recorded the eye colour of everyone in the class.
Their results are shown on the following bar graph.



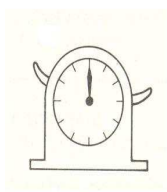
- a. Use the bar graph to fill in the following table.

Eye colour	Brown	blue	grey	Green
Number of pupils				

(4 marks)

- b. What is the most common eye colour? _____ (1 mark)
- c. What is the least common eye colour? _____ (1mark)
- d. What is the total number of pupils in class? _____ (2 marks)

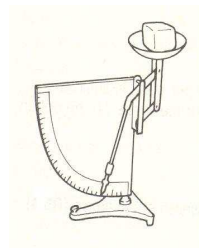
3. Look at these drawings.



W



X



Y



Z

a. Write the names of these four instruments.

W = _____ X = _____

Y = _____ Z = _____

(4 marks)

b. Which measuring instrument is used to measure the volume of a liquid?

_____ (1mark)

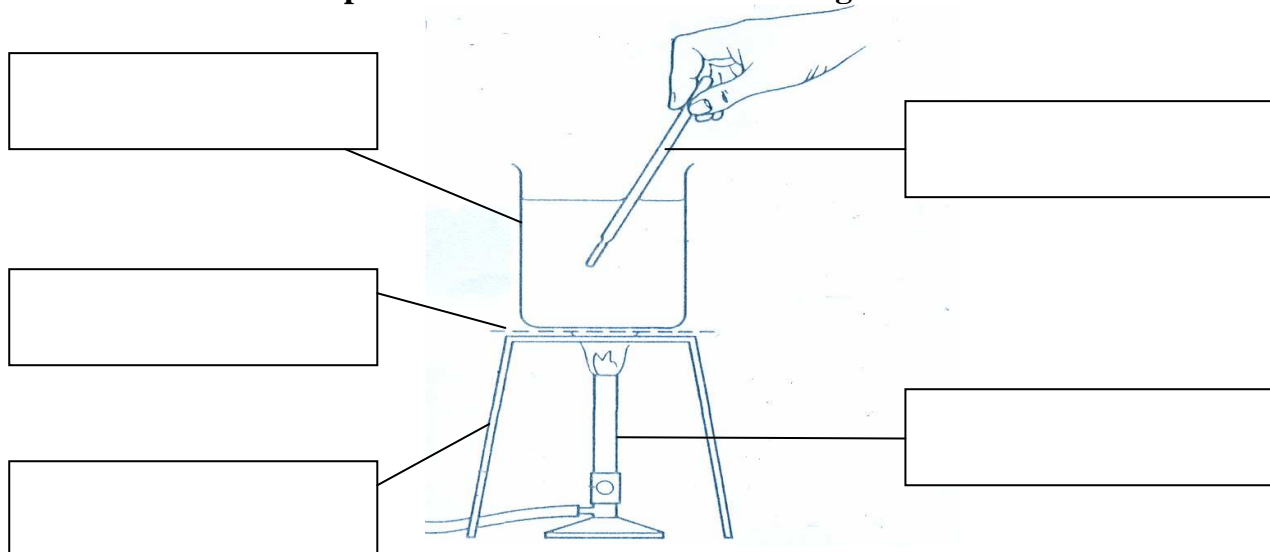
c. Which measuring instrument might have a scale in grams? _____

(1 mark)

d. Daniel heats some water until it starts to boil. Then he measures the temperature of the boiling water. At what temperature does water boil? _____ (2 marks)

e. This is the apparatus that he used.
Use the words below to **label the diagram**.

beaker tripod Bunsen burner wire gauze thermometer



(5 marks)

4. Living things do what non-living things cannot do on their own.

a. Underline FOUR living things.

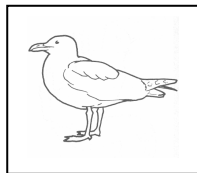
starfish sun water soil grass cheese cow tree rocks sea

(4 marks)

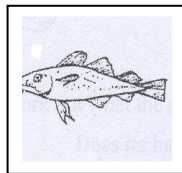
b. Give THREE differences between living and non-living things.

(3 marks)

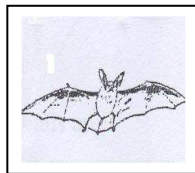
5. a. Use the key to identify the animals.



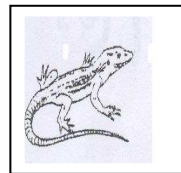
BIRD



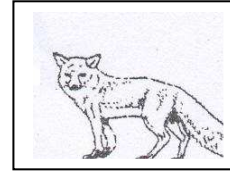
FISH



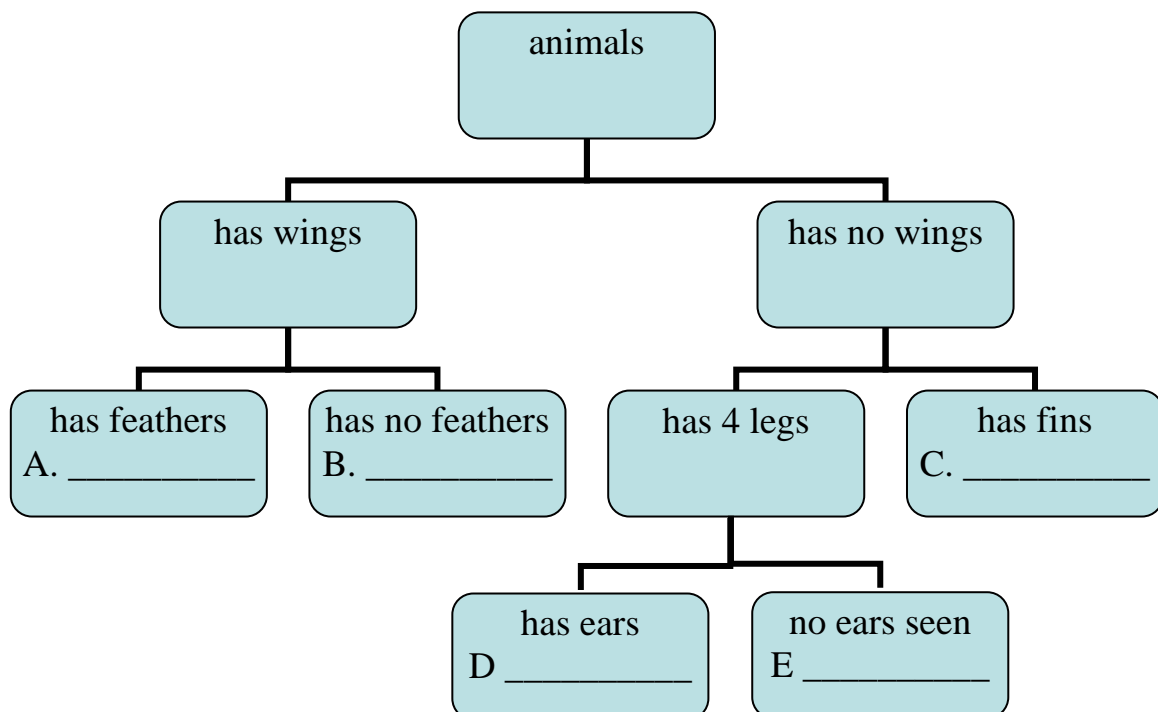
BAT



LIZARD



FOX

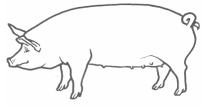
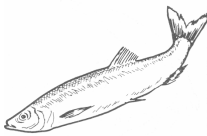



(5 marks)

b. These animals have a backbone or other bones in their body. Therefore they are all called _____.

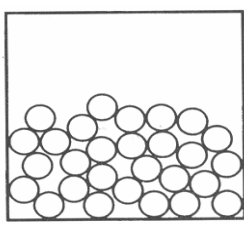
(1 mark)

6. The following table is about vertebrate groups. Fill in the missing information. The first one has been done for you as an example.

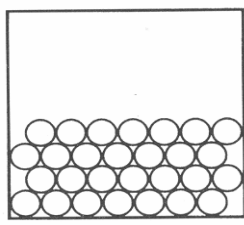
Animal	Vertebrate group	One detail belonging to this vertebrate group	Another example from this vertebrate group
	mammal	live birth	human being
			
			

(6 marks)

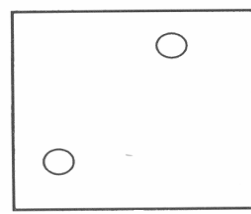
7. The diagram below shows particles in a solid, a liquid and a gas.



Box A



Box B



Box C

- i. Which box shows the particles in:
a solid? _____ a liquid? _____ a gas? _____

(3 marks)

- ii. Are the following SOLIDS, LIQUIDS or GASES?

oxygen _____

tea _____

wood _____

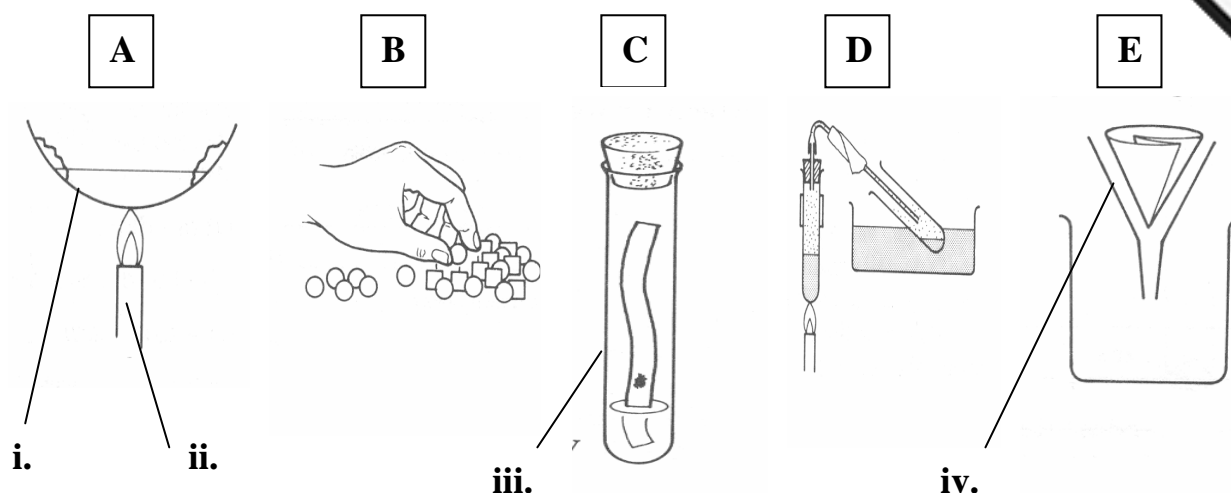
carbon dioxide _____

air _____

ice _____

(6 marks)

8. Nicole draws five sketches of methods of separating mixtures.



- a. Four pieces of apparatus, i, ii, iii and iv, are labelled on the diagrams. Write down their names.

i. _____

ii. _____

iii. _____

iv. _____

(4marks)

- b. Which method could be used for each of the following separations? Fill in the table to answer this question.

The first one has been done for you as an example:

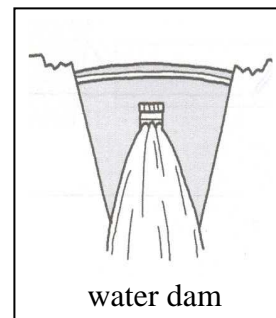
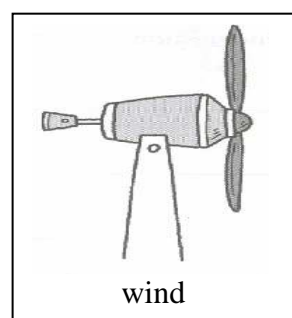
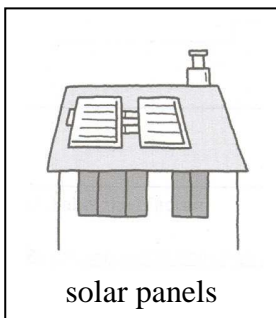
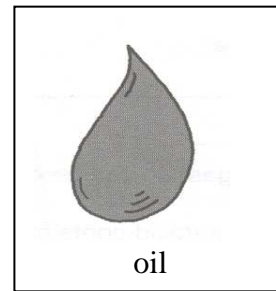
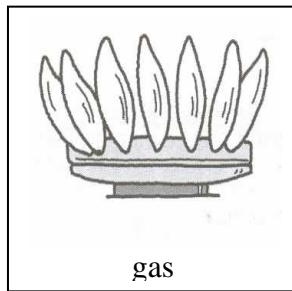
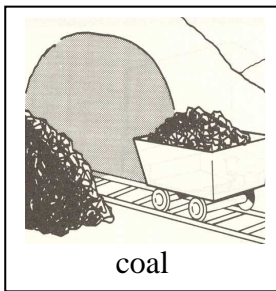
Separating...	Diagram	Name of Method
i. Separating peas and beans	B	By hand
ii. Separating sand and salt solution to get the SAND		
iii. Getting WATER from a salt solution:		
iv. Getting SALT from a salt solution		

(1, 2 marks)

(1, 2 marks)

(1, 2 marks)

9. Look at the following six different energy sources.



a. Which three of these energy sources are fossil fuels?


(3 marks)

b. The other three energy sources are different. Why are they different?

(2 marks)

10. Complete these energy changes describing the energy transfers.

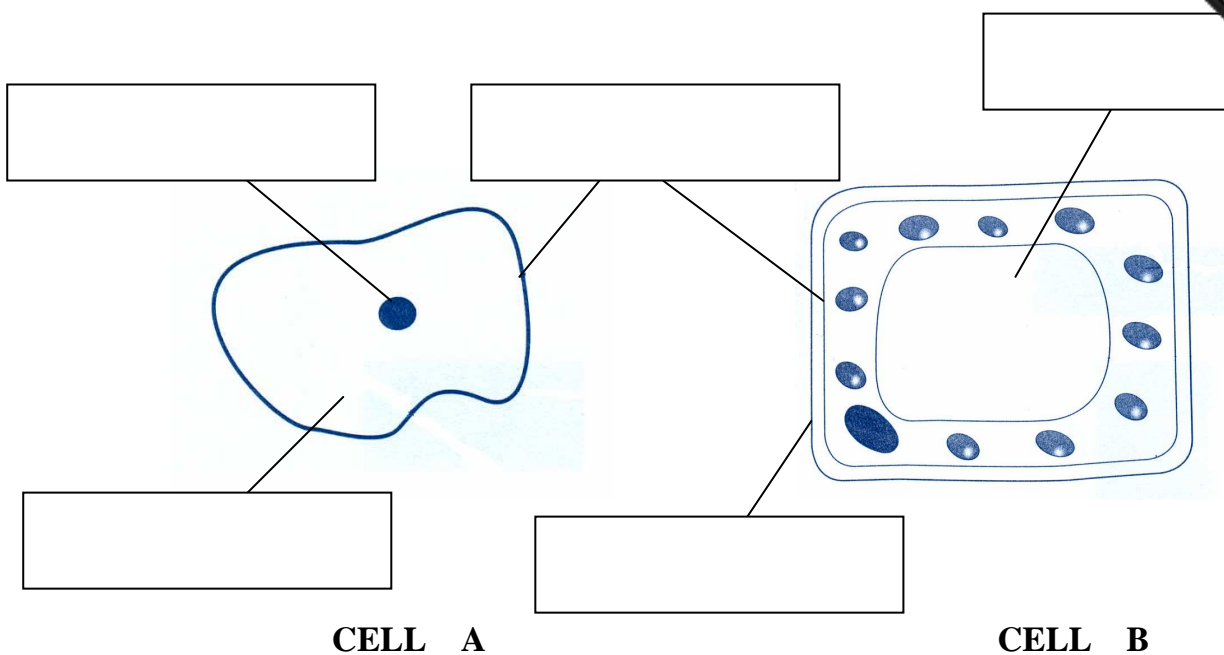
Electrical energy →  →

→  →

→  →

(5 marks)

11. The diagram shows an animal cell and a plant cell.



a. Complete the sentence:

The animal cell is cell _____

(1 mark)

b. Finish labelling the diagrams. The following words might help you.

cell wall

cell membrane

cytoplasm

nucleus

vacuole

(5 marks)

c. Cell membranes are found in both plant and animal cells.

What other two parts of a cell are found in **both animal and plant cells**?

Tick (✓) **two** correct boxes.

cell wall ☐

chloroplast ☐

cytoplasm ☐

nucleus ☐

vacuole ☐

(2 marks)

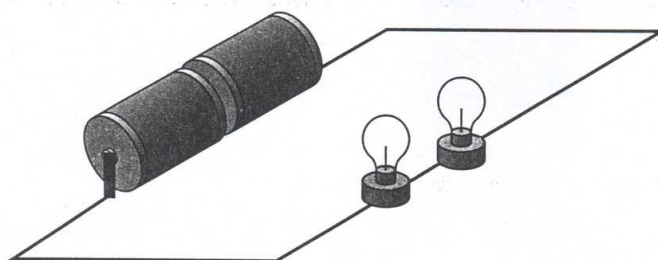
12. Emily is setting up an electrical circuit. She has wires, switches, bulbs and cells (batteries). She does not use them all.

a. Draw the symbols of the following:

Components	Symbols
bulb	
cell (battery)	
open switch	

(3 marks)

b. Look at the picture of Emily's circuit.



Use the symbols to draw a diagram of Emily's circuit.

(3 marks)

- c. The bulbs in Emily's circuit are very bright. Emily removes one cell (battery) from the circuit. Complete the sentence below to describe the effect on the bulbs of removing a cell.

The bulbs will be _____ (1 mark)

- d. Complete this sentence:

The circuit above has the bulbs connected in _____. (1 mark)

- e. What happens to the other bulb if one bulb is removed?

_____ (1 mark)

- f. Look again at Emily's circuit. In what other way could the bulbs be connected?
Draw this circuit.

(3 marks)

The bulbs in this circuit are connected in _____. (1 mark)

- g. Emily adds some different materials to her circuit. When some materials are placed in the circuit, the bulbs light up. Some materials do not allow the bulbs to light up. Finish the table by ticking (✓) the results of her experiment.

Material	Bulbs light up	Bulbs do not light up
Plastic		
Copper		
Rubber		

(3 marks)

- h. Underline the correct answer:

- i. Materials which allow electricity to flow through the circuit are called
(conductors / insulators) .
- ii. Materials which do not allow electricity to flow through the circuit are called
(conductors / insulators).

(2 marks)

- END OF PAPER. PLEASE CHECK YOUR WORK AGAIN -