



ST NICHOLAS COLLEGE
RABAT MIDDLE SCHOOL
HALF YEARLY EXAMINATIONS
February 2017

Mark

Year 7

INTEGRATED SCIENCE

TIME: 1 h 30 min

Name: _____ Class: _____ Register Number: _____

ANSWER ALL OF THE FOLLOWING QUESTIONS

1. This question is about **Safety in the lab**:



a) Both Nathan and Amy are doing something very dangerous. What are they doing wrong?

Nathan: _____

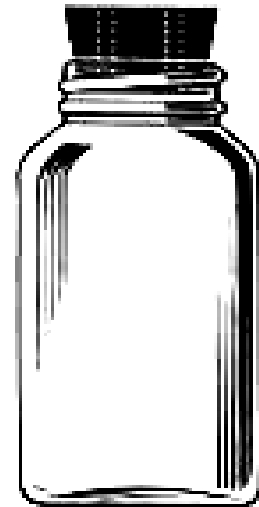
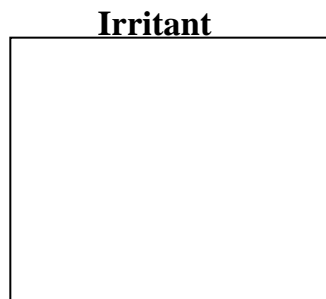
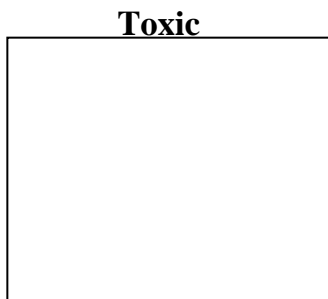
Amy: _____ (2 marks)

b) Write down another safety rule you should obey when in the lab.

_____ (1 mark)

c) The chemical bottle shown below contains a toxic and irritant chemical.

Which **TWO** labels would you stick on the bottle? Draw them.



(2 marks)

2. This question is about **Lab Apparatus**. Look at the following pictures.

a) Write the name of the apparatus under the picture. Choose from the list below:

Test-tube Beaker Tripod Stopwatch Measuring cylinder

Bunsen burner Funnel Thermometer



(8 marks)

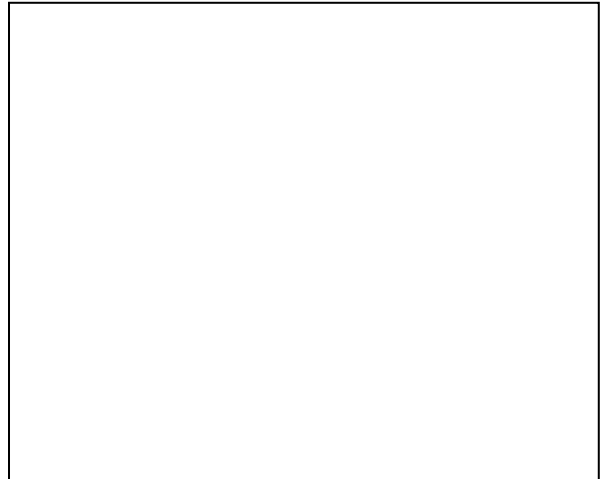
b) Jacob would like to find out how long it takes for water to boil.

i) Which **TWO** measuring apparatus does he need?

(2 marks)

ii) He has **a beaker, a wire gauze, a tripod** and **a Bunsen burner**. Draw how Jacob should set up the apparatus to do the experiment? **LABEL** your diagram.

(5 marks)



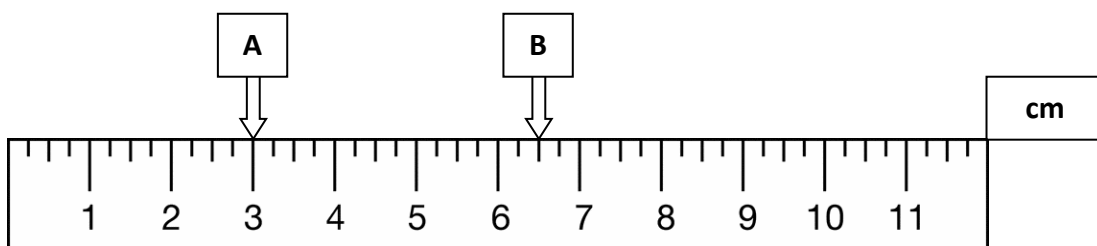
c) Fill in the following table about measuring apparatus:

Apparatus	It measures...	Units
Ruler		cm
	Time	sec
Measuring cylinder		
	Mass	kg
Thermometer		°C

(6 marks)

d) Look at the following ruler. What is the reading at **A** and **B**?

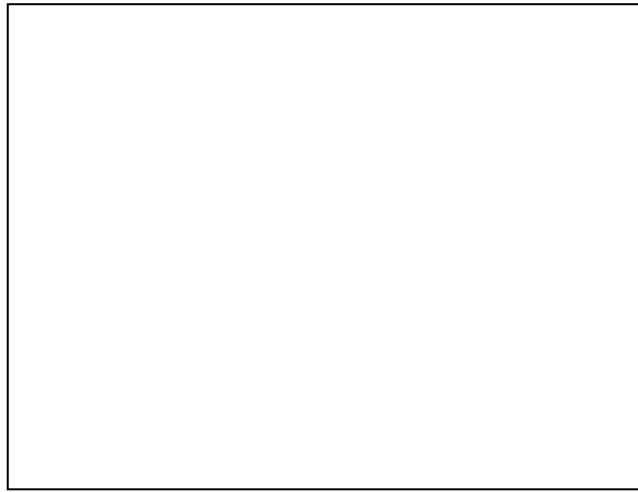
A: _____ **B:** _____



(4 marks)

3. This question is about the **Fire Triangle**.

a) In the space below, **DRAW** the fire triangle.



(3 marks)

b) Matteo was frying some chips when the chip pan caught fire. He closed the gas knob and covered the frying pan with a fire blanket. Use the fire triangle and continue the following sentences to explain how Matteo's actions helped to control the fire.

i) By closing the gas knob, Matteo _____

ii) By covering the frying pan with a fire blanket, Matteo _____

(2 marks)

4. This question is about **Living Things**.

a) All living things move. A car moves too but it is not living. Give **TWO** reasons why a car is not a living thing.

(2 marks)

Reason 1:

Reason 2:

b) Look at the pictures below and answer the following questions.



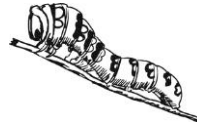
Mushroom



Rain



Car



Caterpillar



Cactus



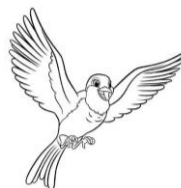
Sun

Sort into two groups: **Living** and **Not Living**.

Living	Not Living

(6 marks)

5. Animals are divided into two groups: **Vertebrates** and **Invertebrates**. Look at the pictures below and answer the following questions.



a) **Circle** the odd one out and give a reason for your answer.

(1 mark)

Reason: _____

(1 mark)

b) Vertebrates are divided into **FIVE** groups. Fill in the following table about vertebrate groups.

Clue	Name of group	Example
I have feathers and lay eggs on land.		Robin
	Mammals	
I have a dry scaly skin and lay eggs on land.		Snake
I need to keep my skin always moist.		
		Shark

(8 marks)

c) To which vertebrate group do we humans belong? _____ (1 mark)



d) Look at this animal. It passes the whole day digging up for ants.

i) Which vertebrate group do you think it belongs to and why? (2 marks)

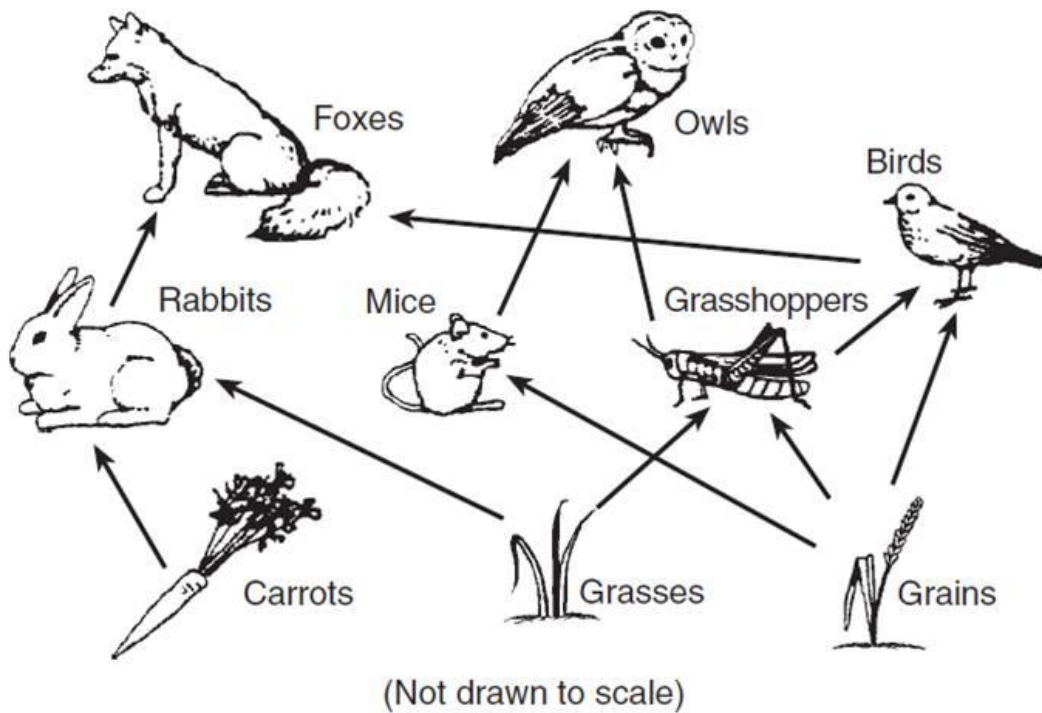
Group _____ Reason _____

ii) List **TWO** adaptations this animal has and describe how this would help it survive.

Adaptation	Why is it useful?
1	
2	

(4 marks)

6) Answer the following questions about the **THIS** food web.



a) Plants are called producers, why? _____

(1 mark)

b) From the food web name a predator and its prey.

Predator _____

Prey _____

(2 marks)

c) Can a predator be a herbivore? Yes or No

Explain why? _____

(2 marks)

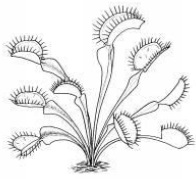
d) The owls and the foxes are the top predators. Explain why?

(1 mark)

e) From the food web, write down the longest food chain you can find.

(2 mark)

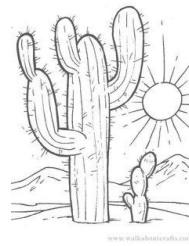
f) Each of the following plants is adapted to live in a particular habitat.



Insect eating plant



Pond plant



Cactus



Oak tree

Complete the following table about plant adaptation.

Plant	Characteristic	Function
Cactus		To decrease loss of water and scare off predators
Oak tree	Grows very tall	
Insect eating plant	Sticky leaves with spiky edges	
Pond plant		To float on water and catch sunlight

(4 marks)

7. The following diagrams show the **three states of matter**.

a) Draw lines between columns A and B to match the diagrams to the correct phrases.

<p>A</p>	<p>B</p> <table border="1" style="width: 100%;"> <tr> <td style="padding: 5px;">Particles have a lot of energy and move at a high speed.</td> </tr> <tr> <td style="padding: 5px;">Particles are close together. They cannot move around. Low in energy.</td> </tr> <tr> <td style="padding: 5px;">Particles can move but they stay close together.</td> </tr> </table>	Particles have a lot of energy and move at a high speed.	Particles are close together. They cannot move around. Low in energy.	Particles can move but they stay close together.
Particles have a lot of energy and move at a high speed.				
Particles are close together. They cannot move around. Low in energy.				
Particles can move but they stay close together.				

(3 marks)

b) Are these statements **True** or **False**? Use the **particle model** to explain why:

i) You can squeeze more air into a bicycle tyre that already has plenty of air inside it.

True or False: _____

Explain: _____

(2 marks)

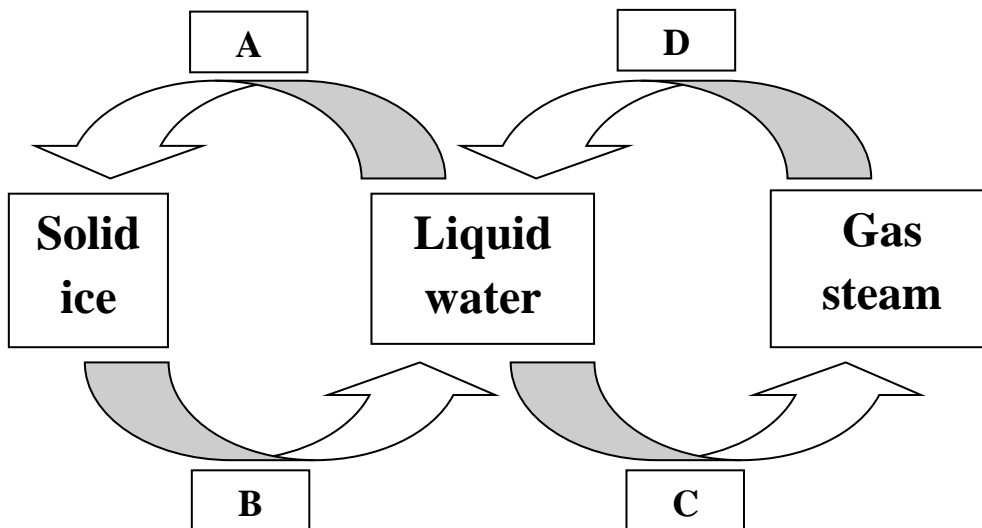
ii) Liquids have a fixed shape.

True or False: _____

Explain: _____

(2 marks)

c) Matter can change from one state to the other. Fill in the following table below with the correct terms for A, B and C. D has been done for you.



Process	Name
A	
B	
C	
D	Condensation

(3 marks)

d) What change of state is taking place when.....

i) liquid water collects on your mirror as you take a shower.

From: _____ To: _____

ii) Mum hangs her clothes to dry up after washing them.

From: _____ To: _____

iii) Dad prepares some ice cubes for tonight's party.

From: _____ To: _____

(6 marks)

8. This question is about different **forms of energy**.

A

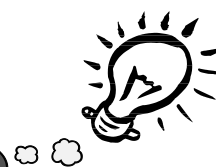
B

C

D

E

F



a) What form of energy is present in the pictures above?
Write your answer in the following table:

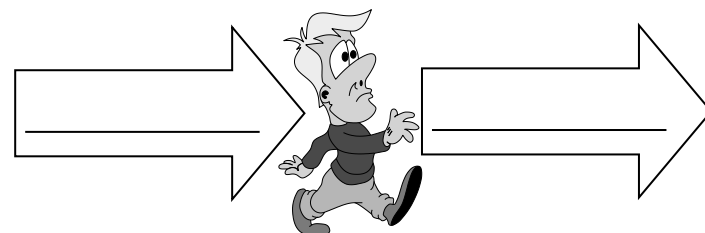
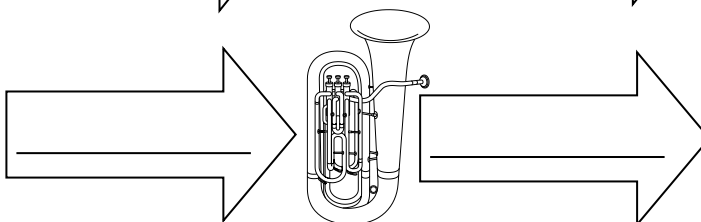
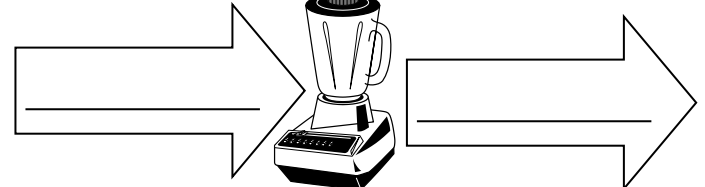
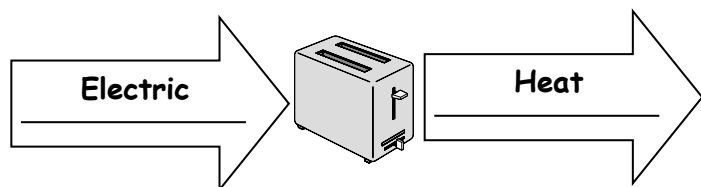
A	
B	

C	
D	

E	
F	

(6 marks)

b) Look at these pictures. What energy is changing? (6 marks)



End of paper. Now check you work properly.