



ST NICHOLAS COLLEGE  
RABAT MIDDLE SCHOOL  
HALF YEARLY EXAMINATIONS  
February 2016

Mark

Year 7

Integrated Science

TIME: 1 h 30 min

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Register Number: \_\_\_\_\_

1. This picture shows some dangers in the lab.



a. Circle **two** dangers in the picture above. [2]

b. Write down **two** safety rules that should be obeyed when working in the lab.

\_\_\_\_\_  
\_\_\_\_\_ [2]

c. What should you do to read accurately from a ruler?

\_\_\_\_\_ [1]

d. What should girls with long hair do when using a flame in the lab?

\_\_\_\_\_ [1]

e. Write down the name of the following safety hazard labels; [3]



\_\_\_\_\_

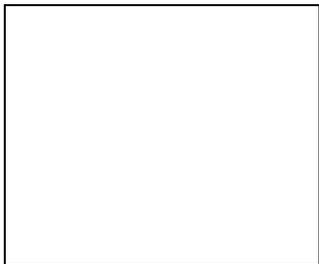
\_\_\_\_\_

\_\_\_\_\_

2. Jake was doing some experiments in the lab.

a. Draw and name the apparatus that he needs in each situation;

i. To **mix** salt with water



\_\_\_\_\_ [2]

ii. To **measure** the temperature of a liquid



\_\_\_\_\_ [2]

iii. To **measure** 70cm<sup>3</sup> of water



\_\_\_\_\_ [2]

b. By mistake, Jake mixed up all his results. Draw lines to match the two columns.

**Measuring..**

The temperature of cold water

The mass of a school bag

The length of a school desk

The mass of a 12 year old student

**Result**

45kg

3°C

4 kg

70 cm

[4]

c. During one of his experiments, Jake had to add 2 drops of food colouring to some water. What instrument did he use to add the drops? [1]

\_\_\_\_\_

3. This question is about **living things**.

a. Put the following words in the correct column.

stone      moon      bird      desk      dog      flower

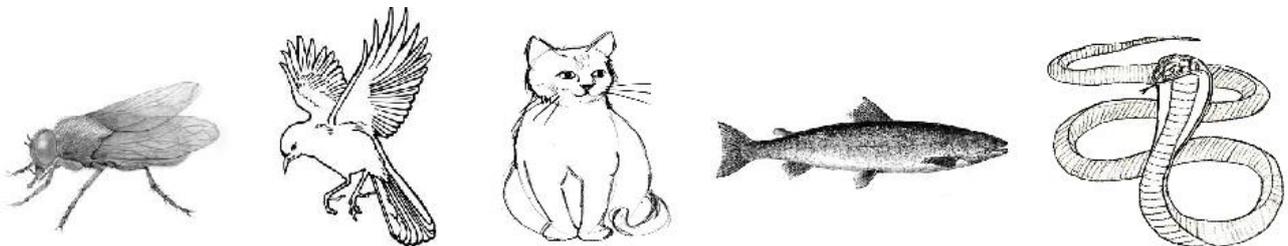
Living Things	Non-living Things

[6]

b. All living things carry out the 7 vital functions. What vital function do the following situations show?

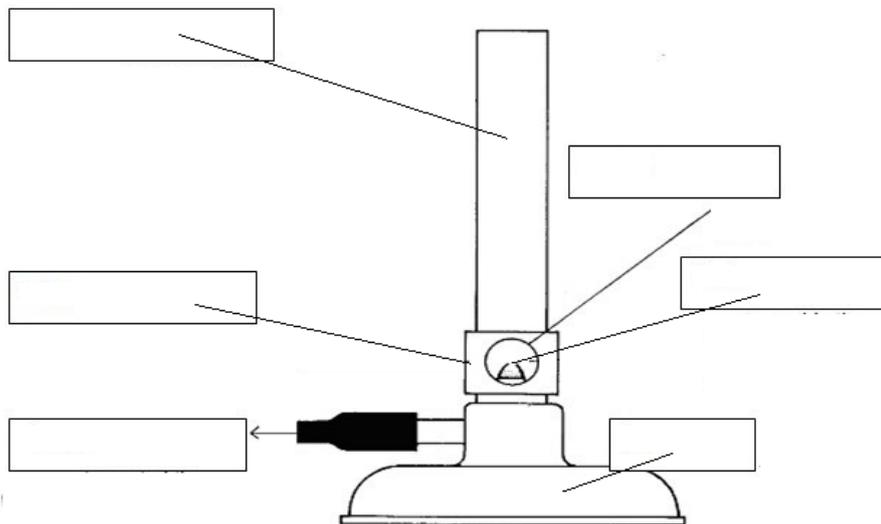
- i. A bee taking nectar from a flower \_\_\_\_\_ [1]
- ii. Bird droppings on the floor \_\_\_\_\_ [1]
- iii. A plant becoming bigger \_\_\_\_\_ [1]
- iv. A cat having babies \_\_\_\_\_ [1]

c. Look at the following living things;



- i. **Circle** the animal that does not fit in. [1]
- ii. What group of animals do all the others belong to?  
\_\_\_\_\_ [1]
- iii. How can you tell that the snake is a reptile?  
\_\_\_\_\_ [1]
- iv. How can you tell that the cat is a mammal?  
\_\_\_\_\_ [1]
- v. Apart from the snake, write down another two types of reptiles.  
\_\_\_\_\_  
\_\_\_\_\_ [2]

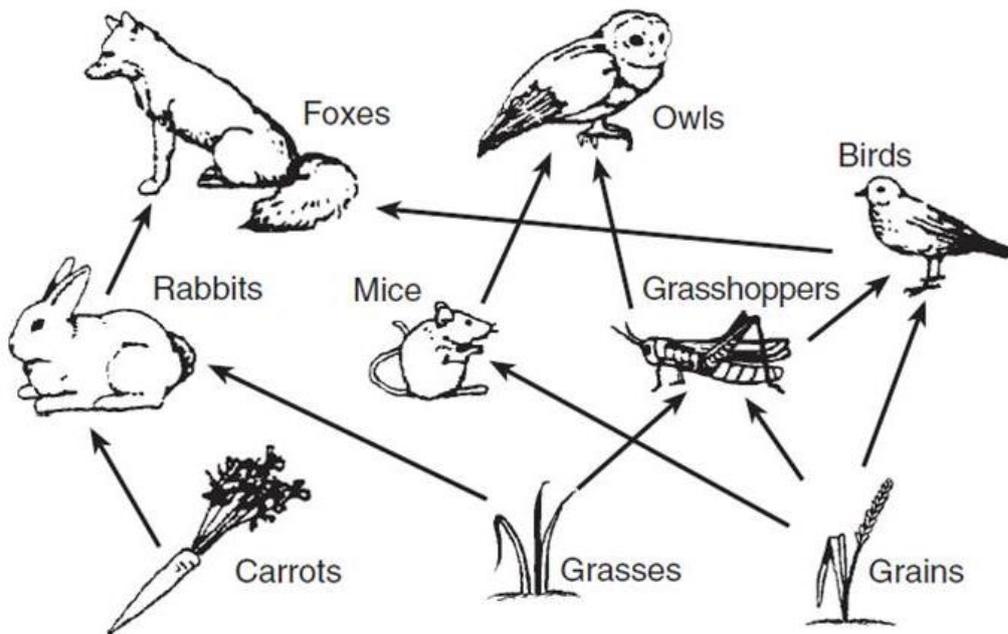
4. Diane wants to heat up some water in the lab.
- a. What apparatus must she use to heat the water? [1]
- 
- b. Label the different parts of the apparatus she will be using. [6]



- c. What colour does the hottest flame have? [1]
- 
- d. How do you produce the hottest flame? [1]
- 
- e. Mention one safety rule that you should obey when using this apparatus. [1]
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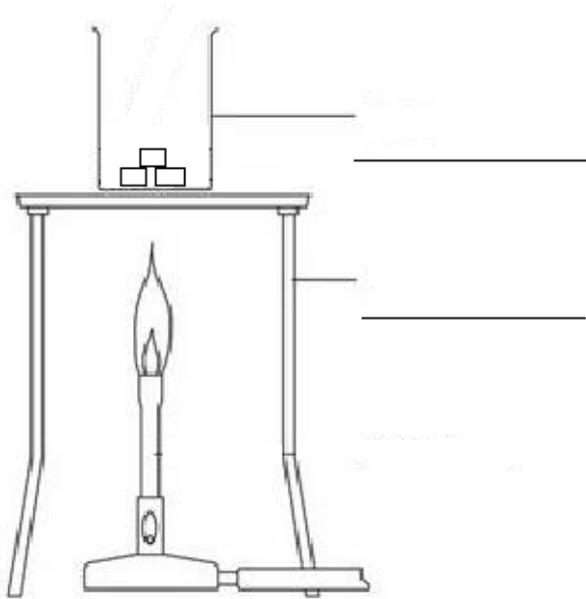
5. This question is about combustion.
- a. What does the word **combustion** mean? [1]
- 
- b. What are the three things needed to create a fire? [3]
- 
- c. In the space below draw a fire triangle. [4]

6. Look at the following food web;



- a. Write down **two** producers from the food web above. [2]  
\_\_\_\_\_
- b. Write down **one** consumer from the food web above. [1]  
\_\_\_\_\_
- c. What does the owl eat? [2]  
\_\_\_\_\_
- d. What will happen to the mouse if a disease kills all the grains? [1]  
\_\_\_\_\_
- e. What will happen to the foxes if the number of birds decreases? [1]  
\_\_\_\_\_
- f. Write down a food chain from the above food web [3]  
\_\_\_\_\_
- g. From your food chain, write down the predator and the prey [2]  
Predator: \_\_\_\_\_ Prey: \_\_\_\_\_
- h. Is the Owl a herbivore or carnivore? [1]  
\_\_\_\_\_
- i. What is an animal that eats both plants and meat called? Give an example of this type of animal from the food web above. [2]  
\_\_\_\_\_  
\_\_\_\_\_

7. This question is about the three states of matter. Jack is heating some ice in the lab.

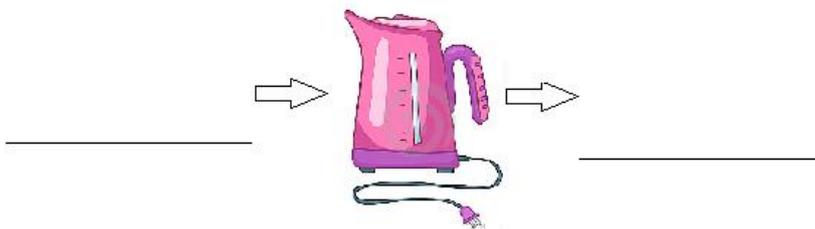
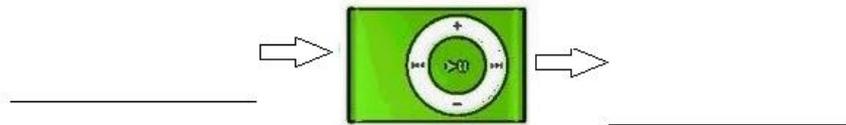
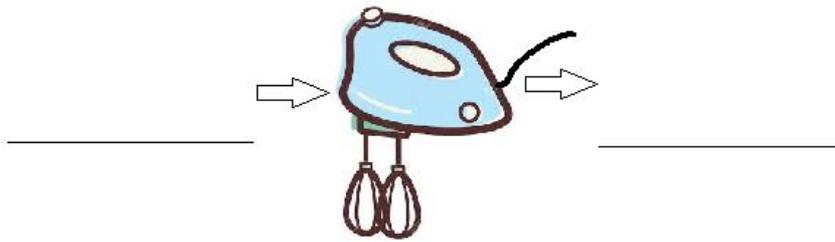


- a. On the diagram above, label the two pieces of apparatus. [2]
- b. What are the three states of matter? [3]
- \_\_\_\_\_
- c. What state of matter does ice fall under? [1]
- \_\_\_\_\_
- d. After a few minutes of heating, what will happen to the ice? [1]
- \_\_\_\_\_
- e. At one point, steam starts coming out of the container. What happens to the steam if it comes in contact with a glass window? [1]
- \_\_\_\_\_
- f. What is this process of change of state called? [1]
- \_\_\_\_\_
- g. At what temperature does water boil? [1]
- \_\_\_\_\_
- h. What is the process of changing water back to ice called? [1]
- \_\_\_\_\_

8. This question is about energy.

a. Fill in the blanks to complete the main energy transfers.

[6]



b. What type of energy do we get from food?

[1]

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c. Look at the following nutrition label of these **two** cereal bars and answer the questions;

Cereal Bar A			Cereal Bar B		
Typical values	100g contains	Each bar contains	Typical values	100g contains	Each bar contains
Energy	235 kcal	105 kcal	Energy	300 kcal	132 kcal
Fat	1.5g	0.7g	Fat	1.9g	0.84g
Carbohydrates	45.5g	20.0g	Carbohydrates	57.5g	25.3g
Fibre	2.8g	1.2g	Fibre	1.5g	0.66g
Protein	7.7g	3.4g	Protein	5.0g	2.2g
Salt	1.0g	0.4g	Salt	1.0g	0.4g

i. Which cereal bar gives the most energy?

[1]

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ii. How much energy do I get if I eat one of each cereal bars?

[2]

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9. This question is about **habitats**.

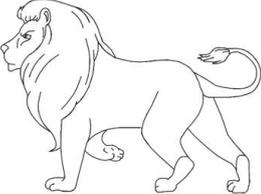
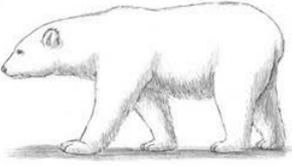
a. What does the '**habitat**' mean?

[1]

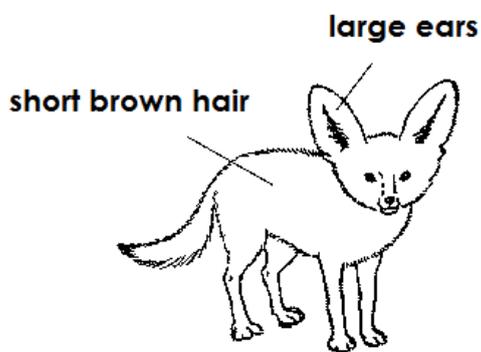
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b. Write down the habitat of each of the following living things;

[6]

	<b>Living Thing</b>	<b>Habitat</b>
1	Cactus 	_____
2	Lion 	_____
3	Polar Bear 	_____

c. The following is a picture of a desert fox.



i. Why is its hair short and not long?

[1]

\_\_\_\_\_

ii. Why is its fur brown?

[1]

\_\_\_\_\_

iii. Why does the desert fox have large ears?

[1]

\_\_\_\_\_

-----END OF PAPER-----