



ST NICHOLAS COLLEGE  
RABAT MIDDLE SCHOOL  
HALF YEARLY EXAMINATIONS  
February 2017

Mark

Year 8

INTEGRATED SCIENCE

TIME: 1 h 30 min

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

**ANSWER ALL OF THE FOLLOWING QUESTIONS**

Question 1: **This question is about food substances.**

a i) Fill in the missing food substances.

Carbohydrates	_____	_____	Minerals
Vitamins	_____	Water	(3)

ii) These are known as \_\_\_\_\_ (1)

b) Which food substance would you eat to...

i) keep the digestive system healthy - \_\_\_\_\_.

ii) increase the energy level before a sport activity - \_\_\_\_\_.

iii) grow new tissue and repair damages - \_\_\_\_\_ (3)

c) Answer the following questions.

i) What do you understand by the phrase 'a balanced diet'?  
\_\_\_\_\_  
(1)

ii) Which drink is the most important for our body? Explain your answer.  
\_\_\_\_\_  
\_\_\_\_\_  
(2)

**Question 2: This question is about healthy lifestyles.**

- a) Group the following into healthy and unhealthy. (4)

Eating fruit and vegetables	smoking	eating junk food	going to the gym
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Healthy	Unhealthy

- b) Underline a product of smoking. (1)

<b>Lead</b>	<b>Tar</b>	<b>Carbon dioxide</b>
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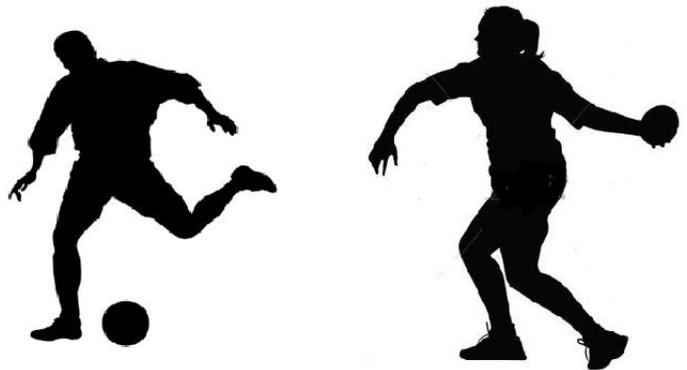
- c) Name **TWO** effects of smoking.

- i) \_\_\_\_\_  
 ii) \_\_\_\_\_ (2)

- d) What happens to the heart beat when a person is running? Give a reason for this.  
 \_\_\_\_\_ (2)

- e) A footballer and a discus thrower need to train in a different way.

- i) Give a reason for this.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ (1)



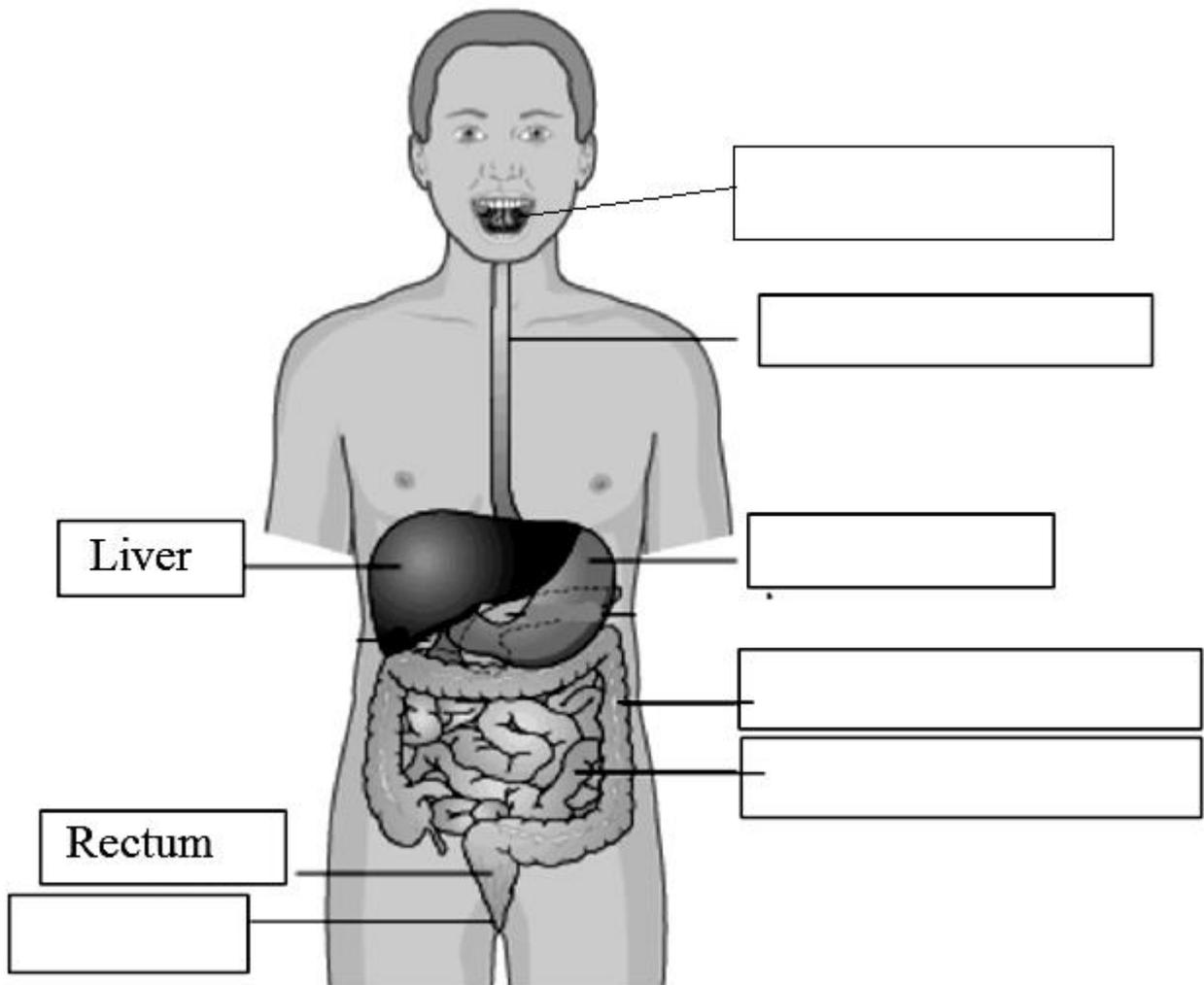
- ii) If the footballer is fitter than the discus player, who will have the fastest heart beat at rest?  
 \_\_\_\_\_ (1)

**Question 3: This question is about the digestive system.**

a) Label the following parts :-

small intestines
gullet
stomach
anus

mouth
large intestines



(6)

b) In which part are the food substances absorbed by blood \_\_\_\_\_ (1)

- c) Fill in the blanks with a suitable word.  
 Digestion is the \_\_\_\_\_ down of food into \_\_\_\_\_ particles. (2)
- d) What is the function of the stomach?  
 \_\_\_\_\_ (1)
- e) Where does digestion start? What happens here?  
 \_\_\_\_\_  
 \_\_\_\_\_ (2)
- f) What food substance is not absorbed in the digestive system? \_\_\_\_\_ (1)

**Question 4: This question is about microbes and disease.**

- a) Complete the **MIDDLE COLUMN** using words from the given list and state whether the disease is caused by a **virus, bacteria or fungus**.

**Public showers    droplets in air    blood contact    food poisoning**

<b>Disease</b>	<b>Means of spread</b>	<b>Virus/Bacteria/Fungus</b>
Salmonella		
AIDS		
Athlete's foot		
Influenza		

(8)

- b) State whether **TRUE** or **FALSE**.
- i) The skin is our first line of defence. \_\_\_\_\_
- ii) Antibiotics kill only viruses. \_\_\_\_\_
- iii) White blood cells fight infections. \_\_\_\_\_ (3)



c) Name a microbe used in bread or wine making.

\_\_\_\_\_

(1)

d) Our immune system produces antibodies to kill certain microbes.

When our immune system is not capable to fight certain microbes we might need to take a vaccine to help us avoid being infected.

Give **TWO** examples when we do this.

(2)

i) \_\_\_\_\_

ii) \_\_\_\_\_

### Question 5: This question is about materials

a) Which of the following is made up of only one type of atom? **Tick (✓)** the right answer.

Tomato ketchup

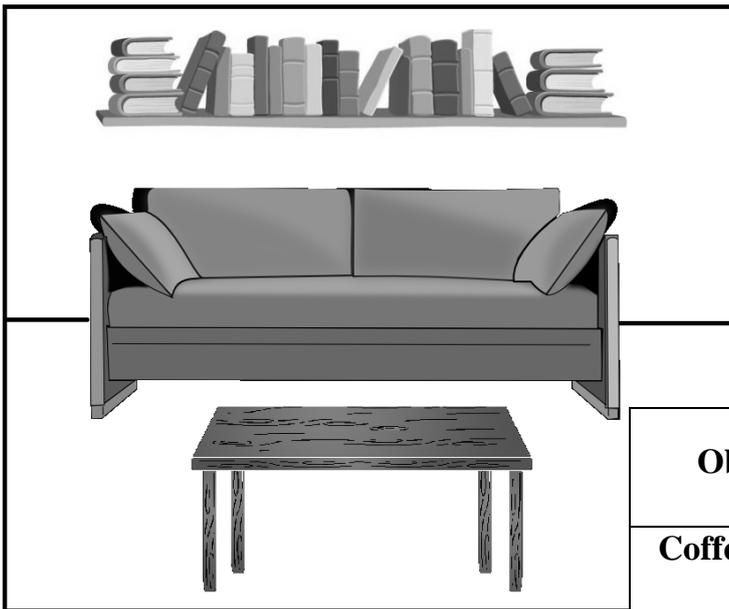
A crystal of table salt

A drop of water

Aluminium foil

(1)

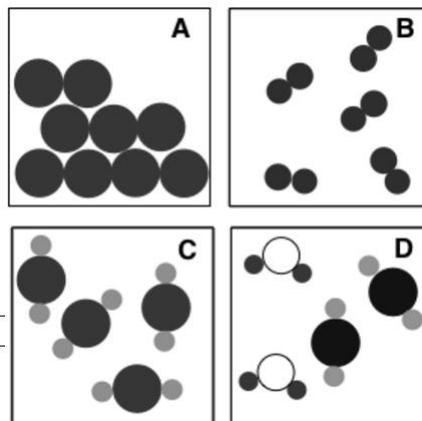
- b) Look at the following picture and fill in the table for 3 objects from the picture. For each object, write down its main material and a property for this material.



(6)

Object	Material	Property
Coffee table		
Wall		
Books		

- c) Look at the following picture and answer the questions;



- i) Which **TWO** diagrams represent an element? \_\_\_\_\_ and \_\_\_\_\_ (2)
- ii) Which diagram represents a compound? \_\_\_\_\_ (1)
- iii) Which diagram represents a mixture? \_\_\_\_\_ (1)

**Question 6: This question is about compounds and mixtures.**

a) Name **TWO** ways how compounds are different from mixtures.

\_\_\_\_\_ (2)

b) A beaker with a black - yellow powder has a magnet put in it. When the magnet is pulled out, black powder is stuck to it.

i) Is this black-yellow powder a compound or a mixture? \_\_\_\_\_ (1)

ii) Give a reason for your answer.

\_\_\_\_\_ (1)

c) This black-yellow powder is now burnt using the Bunsen burner. The powder reacts and forms a grey solid.

i) Is this a chemical or a physical change?

\_\_\_\_\_ (1)

ii) Underline a word that best describes the new grey solid:

<b>Element</b>	<b>Compound</b>	<b>Mixture</b>
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(1)

d) Complete the table. The first one has been done for you:

Element	Symbol	Metal or non-metal
Copper	Cu	Metal
Nitrogen	N	
Zinc	Zn	
	H	Non-metal
Carbon		Non-metal

(4)

**Question 7: This question is about metals and non-metals.**

- a) Look at the list of materials below and circle the metals; (4)

<b>Iron</b>	<b>Salt</b>	<b>Gold</b>	<b>Aluminium</b>	<b>Wood</b>	<b>Magnesium</b>
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- b) Fill in the missing words;

i) A block of metal will \_\_\_\_\_ when placed in water. (1)

ii) In general, metals are \_\_\_\_\_ at room temperature. (1)

iii) Mention a metal that is liquid at room temperature. \_\_\_\_\_ (1)

iv) Give ONE way how you can identify metals just by looking at them.

\_\_\_\_\_ (1)

v) Why are wires made of metal? \_\_\_\_\_ (1)

**Question 8: This question is about physical and chemical changes.**

- a) Next to each situation write whether it is a physical or a chemical change;

i) Melting ice-cream \_\_\_\_\_

ii) Burning wood \_\_\_\_\_

iii) Cutting a tree \_\_\_\_\_

iv) Mixing sugar and water \_\_\_\_\_ (4)

b) Maria had a polished marble tile. She wanted to see what will happen when she puts the polished marble tile in different liquids. She put the tile in some acid.

i) What will happen to the look of the tile after a week in acid?

\_\_\_\_\_ (1)

ii) Is this a physical or chemical change? \_\_\_\_\_ (1)

**Question 9: This question is about separation techniques**

Joanne puts some soil, water and salt in a beaker. She makes sure that it is all mixed well.



a) What apparatus does she use to mix them well? \_\_\_\_\_ (1)

b) Will she still see the salt after mixing well? Explain your answer.  
\_\_\_\_\_  
\_\_\_\_\_ (2)

c) Will she still see the soil after mixing well? Explain your answer.  
\_\_\_\_\_  
\_\_\_\_\_ (2)

d) Has she created a mixture or a compound? Explain your answer.  
\_\_\_\_\_  
\_\_\_\_\_ (2)

e) What does the word **soluble** mean?  
\_\_\_\_\_ (1)

f) Mention one material from Joanne's beaker that is soluble.  
\_\_\_\_\_ (1)

g) Mention another material from Joanne's beaker that is insoluble. Explain why you chose this material  
\_\_\_\_\_  
\_\_\_\_\_ (2)

**Question 10: This question is about separating techniques.**

The photo below shows **Salt Pans** in Gozo. In winter, these salt pans fill with sea water.



- a) What is the difference between sea water and fresh water?  
\_\_\_\_\_ (1)
- b) What will happen to the sea water in the salt pans during Summer?  
\_\_\_\_\_ (1)
- c) What will be left in the salt pans?  
\_\_\_\_\_ (1)
- d) What is this process called? \_\_\_\_\_ (1)
- e) Why are the salt pans large and shallow instead of small and deep?  
\_\_\_\_\_ (1)
- f) Give another example where this process takes place in everyday life.  
\_\_\_\_\_ (1)

**End of paper. Now check you work properly.**