



ST NICHOLAS COLLEGE  
RABAT MIDDLE SCHOOL  
HALF YEARLY EXAMINATIONS  
February 2016

Mark

Year 8

INTEGRATED SCIENCE

TIME: 1h 30min

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

**1. This question is about the Sun, Earth and the moon.**

a) Put the following into its appropriate space.

**28 days**

**leap year**

**365<sup>1</sup>/<sub>4</sub> days**

**24 hours**

i) time taken for Earth to orbit the Sun once - \_\_\_\_\_

ii) time taken for the moon to orbit the Earth - \_\_\_\_\_

iii) time taken for Earth to spin once on its axis - \_\_\_\_\_.

iv) it is called like this when February has 29 days - \_\_\_\_\_.

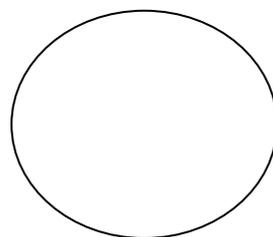
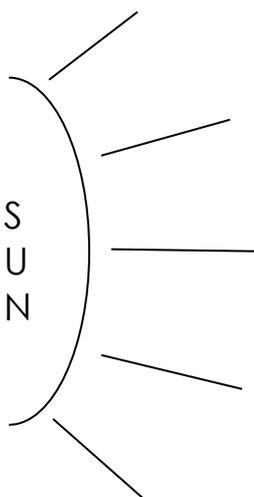
(4)

b) Peter and Carla were investigating how day and night occurs. They used a beach ball to be the Sun and a football to be the Earth.

i) What do you think they used to be the moon? \_\_\_\_\_

(1)

ii) Shade the part of the Earth where do you think it is night. (1)



Earth

iii) Put an X on Earth where do you think it is about midday and a Y where do you think it is just about before sunset if the Earth turns anticlockwise. (2)

## 2. This question is about food substances

a) Match the following food substances with their meaning

**protein**      **fat**      **fibre**      **carbohydrate**      **minerals**

- i) needed by the body for energy - \_\_\_\_\_
  - ii) needed for a healthy digestive system - \_\_\_\_\_
  - iii) needed for growth and repair - \_\_\_\_\_
  - iv) needed for strong bones, teeth and healthy blood - \_\_\_\_\_.
  - v) it is a store of energy under the skin - \_\_\_\_\_.
- (5)

b) Underline the correct word in brackets.

- i) Before a sport activity you should take (**protein, carbohydrate, fat**).
  - ii) Taking too much (**fat, protein, fibre**) can make you obese.
  - iii) You should always take (**fibre, carbohydrate, protein**) after a sport activity.
- (3)

c) Give **TWO** reasons why we should drink water.



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

## 3. This question is about microbes and disease.

a) Name the three types of microbes

- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_

(3)

b) Complete the following table using the following words. (6)

**AIDS , common cold , tsetse fly , contact , water , salmonella**

Means of spread	How it spreads	Name of disease
air	droplets in the air	
	sewage contamination	cholera
food	microbes in expired food	
	touching each other	Smallpox
blood	sharing injection needles	
animals		sleeping sickness

c) Name **TWO** ways how microbes can be useful. (2)

i. \_\_\_\_\_

ii. \_\_\_\_\_

#### 4. This question is about the solar system

a) Match each fact with its corresponding planet.

1	Known as the red planet		Earth
2	The hottest planet		Mercury
3	The only planet we know with living things		Jupiter
4	Has beautiful rings round it		Mars
5	The closest planet to the Sun		Saturn
6	The largest planet		Venus

(6)

b) State whether **TRUE** or **FALSE**.

i. Neptune is the furthest planet from the Sun - \_\_\_\_\_

ii. Earth has a shorter year than Mercury - \_\_\_\_\_

iii. It is colder on Mars than on Jupiter - \_\_\_\_\_. (3)

c) Answer the following questions.

i) Why are the Sun and all the planets going round it called 'solar system' ?

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

ii) What is the difference between the inner planets and the outer planets?

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

## 5. This question is about Elements and Compounds

oxygen    water    iron    salt    hydrogen    nickel    lead

a) From the above list, name

i) TWO elements - \_\_\_\_\_ , \_\_\_\_\_

ii) TWO compounds - \_\_\_\_\_ , \_\_\_\_\_

iii) TWO gases - \_\_\_\_\_ , \_\_\_\_\_

iv) TWO metals which are attracted to a magnet –

\_\_\_\_\_ , \_\_\_\_\_ . (8)

b) Iron reacts with oxygen to form a brown brittle material called rust.

i) Do you think this is a **physical** or a **chemical** change? \_\_\_\_\_ (1)

ii) What else is needed for the change to take place? \_\_\_\_\_ (1)

iii) Do you think rust is an **element**, a **compound** or a **mixture**? (1)

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iv) The scientific name for rust is \_\_\_\_\_ (1)

v) Write an equation to show this change.

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

c) Write **TWO** properties of **gold**.

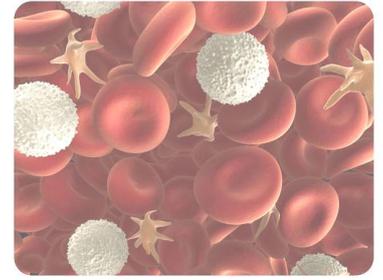
i. \_\_\_\_\_

ii. \_\_\_\_\_ (2)



wiseGEEK

## 6. This question is about body defences.



a) Fill in the Blanks using only one word.

i) A chemical in your tears kills \_\_\_\_\_ (1)

ii) Your nose produces \_\_\_\_\_ which traps microbes. (1)

iii) White blood cells produce \_\_\_\_\_ which fight and destroy microbes. (1)

iv) We take \_\_\_\_\_ to become immune against certain diseases. (1)

b) Answer the following questions.

i) Why do you think it is important for a scab to form quickly over a cut?

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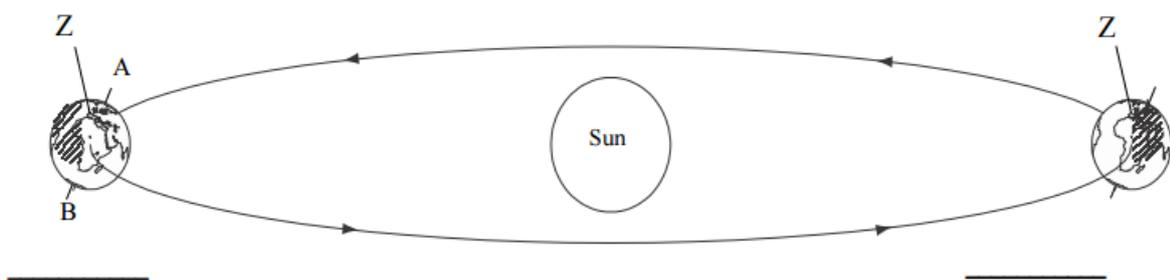
ii) How does the stomach help to stop the body becoming infected?

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(4)

## 7. This question is about The Seasons.

This diagram shows the Earth at two different positions in its orbit



a) What is the line A-B called? \_\_\_\_\_ (1)

b) What is the path taken by Earth round the Sun called? \_\_\_\_\_ (1)

c) Draw an **X** on the diagram to show where the Earth would be when it is spring. (1)

d) Imagine that you are living in a country marked **Z**. At one position, it is summer and at the other it is winter. Write **'summer'** and **'winter'** under the correct parts of the diagram. (2)

e) Fill in the blanks using the following words. (4)

**longest**

**higher**

**nights**

**daylight**

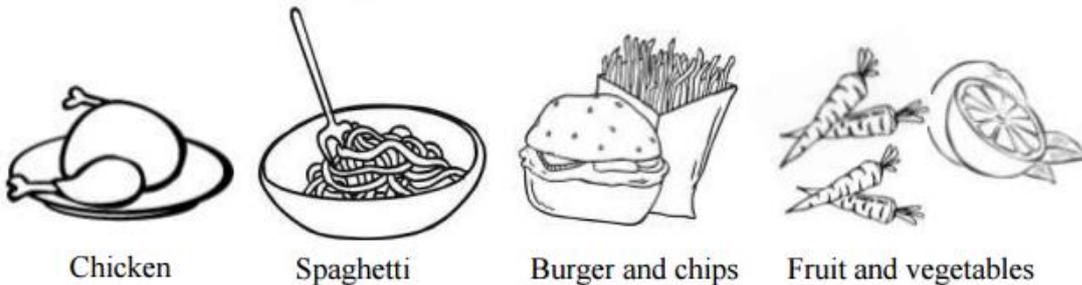
In summer, we have longer \_\_\_\_\_ hours and shorter \_\_\_\_\_ as the Sun is \_\_\_\_\_ in the sky. In the northern hemisphere, the 21<sup>st</sup> of June is considered as the \_\_\_\_\_ day.

f) Give the reason why there are seasons on Earth ?

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

### 8. This question is about food sources.

a) The dishes below are Gilbert's favourite food.



Which dish is a main source of:

i) Carbohydrates ? \_\_\_\_\_ (1)

ii) Vitamins ? \_\_\_\_\_ (1)

b) Which of the above foods can cause heart disease ?

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

c) Gilbert needs to improve his muscle power. Which of the above food is mostly needed to grow new muscle cells ?

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

d) Calcium is an important mineral needed by our body.

i) Name **TWO** foods rich in calcium. \_\_\_\_\_ , \_\_\_\_\_ .  
(2)

ii) Name a food which is a main source of iron. \_\_\_\_\_ (1)

e) Why does a manual worker needs to take more carbohydrate than an office worker ?

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

### 9. This question is about gravity and weight.

**N.B. For this question take 1kg=10N on Earth.**

Ann drew a picture of herself holding a ball on a string while standing at position A on Earth.

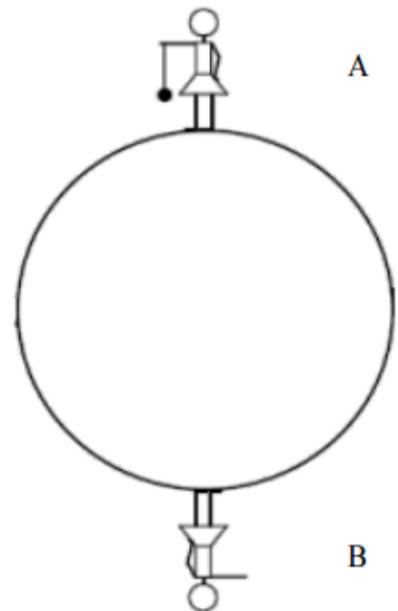
a) Draw an arrow to show the direction of the force of gravity on Ann at position A. (1)

b) Draw the ball and string at position B. (1)

c) Ann's mass on Earth is 60kg.

i) Does her mass change if she goes to the moon ? \_\_\_\_\_ (1)

ii) Calculate her weight on Earth. (1)



iii) When she goes to the moon her weight **(increases , remains the same ,decreases )**. (1)

iv) Why do you think this happens ?

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

