Practise paper 1

Science

Key stage

2

Level 3 - 5

Science

This test is **45 minutes** long.

You must try to answer all the questions.

Name .....

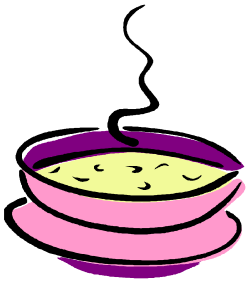
School .....

Total marks [ ] out of **40**

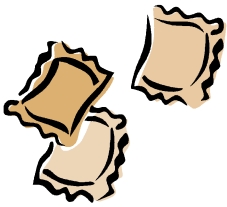
1

The picture shows what Grace had for dinner on Tuesday evening

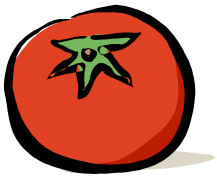
glass of milk



carrot soup



pasta



tomato sauce

a) Which **one** of these foods will keep Grace's teeth and bones healthy? .....

1 mark

b) Which food group does pasta belong to? (tick **one** box).

protein ☐ dairy ☐ fats ☐

carbohydrates ☐ fruit and vegetables ☐

1 mark

2

A builder is building a house.

a) Which material could he use for the walls? .....

Why? .....

2 marks

b) Which material could He use for the windows? .....

Why? .....

2 marks

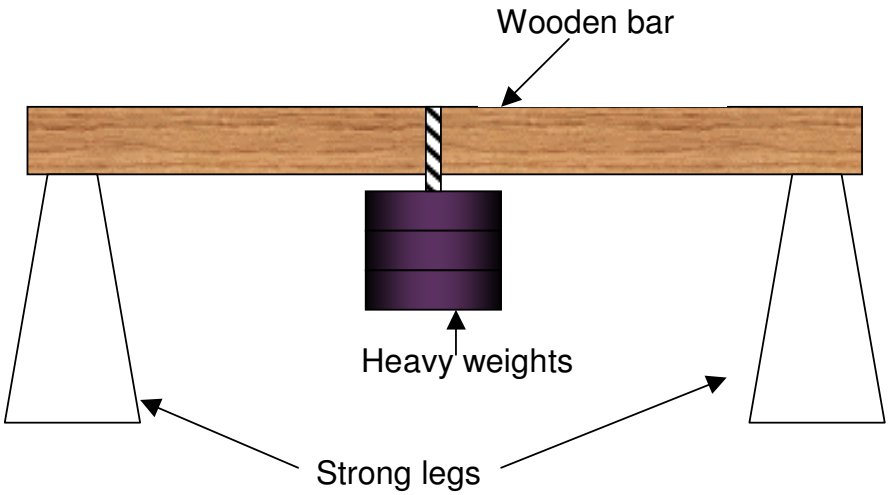
c) Which material could He use for the roof? .....

Why? .....

2 marks

He decides to make the stairs from wood because wood is strong.

He tests different types of wood to see how strong they are.



Here are his results:

	Weight needed to break the bar
Pine wood	700 grams
Oak wood	1500 grams
Ash wood	1200 grams
Beach wood	900 grams

d) Which type of wood is the strongest? ……..

1 mark

e) Write down **two** things the builder must do to make it a fair test.

1. ……

2. ……..

2 marks

3

Sarah is watching butterflies in the garden. She notices that they are insects and **do not** have a backbone.

a) What do we call animals that **do not** have backbones? ……

1 mark

c) Insects have three body parts and six legs. Circle the minbeast below that is not an insect.

1 mark

d) Write the numbers 1, 2, 3 and 4 under the stages in the lifecycle of a butterfly from youngest (1) to oldest (4)

…….. …….. …….. ……..

1 mark

Total

Look at the food chain below

Oak leaf caterpillar blue tit

e) Which of the organisms in the food chain is a predator? ……..

1 mark

f) Which is a producer? ……

1 mark

g) Explain how producers make their own food.

……..

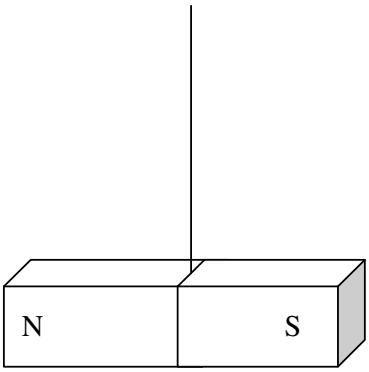
……..

……..

2 marks

4

Tom is looking at magnets. He hangs one up with cotton.



He gives the south pole a little push. The magnet sways to and fro but after a while ends up pointing in exactly the same direction it did before.

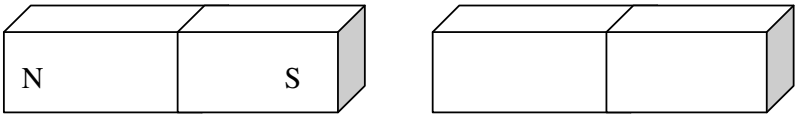
a) Why does this happen? ……

……

……

1 mark

He now takes two magnets and puts them on the table like this.



Magnet A Magnet B

As he pushes magnet A towards magnet B it is pushed away.

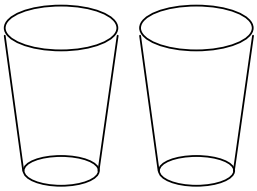
b) Label the poles of magnet B on the diagram

1 mark

5

Jenny is making Jelly. She dissolves the jelly cubes in warm water. She wonders if smaller jelly cubes dissolve faster. She decides to do an experiment. She thinks she will need the following equipment.

Jelly cubes



Beakers

Knife & spoon

Warm water

Thermometer

Stopwatch

a) What **one** factor should Jenny plan to **change** as she carries out her investigation?

……

……

1 mark

b) What must she measure or observe to collect her results?

……

……

1 mark

c) Name **two** factors that she must keep the same to make sure she is carrying out a fair test.

……

……

……

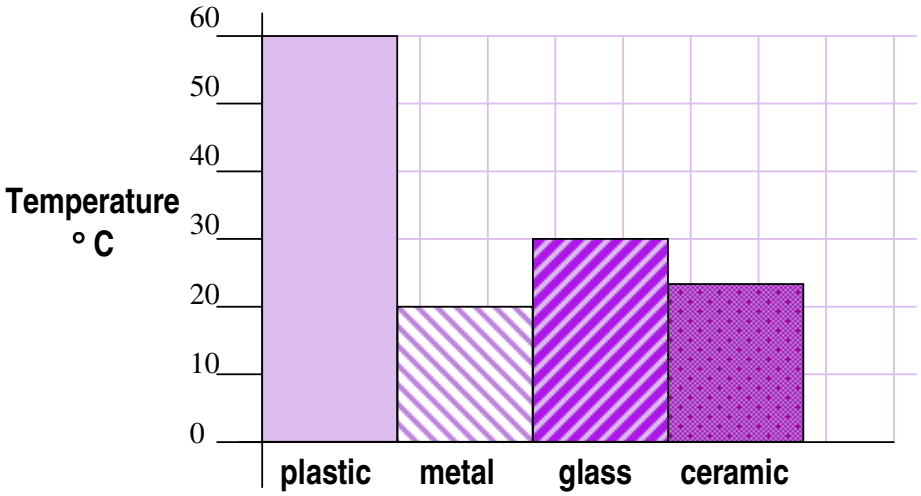
2 marks

d) Jenny dissolves her jelly in the hot water. Match the dissolving words with their partners by drawing a line from the box on the left to the one on the right.

Solvent	Jelly
Solute	water
Solution	Jelly & water

1 mark

Jenny wants her jelly to cool down quickly so that it sets.
She tries out jelly moulds made of plastic, metal, glass & ceramic.
She measures the temperature 10 minutes later.



a) What could she have used to measure the temperature? ……

1 mark

b) What temperature was the jelly in the glass mould after 10 minutes? ……° C

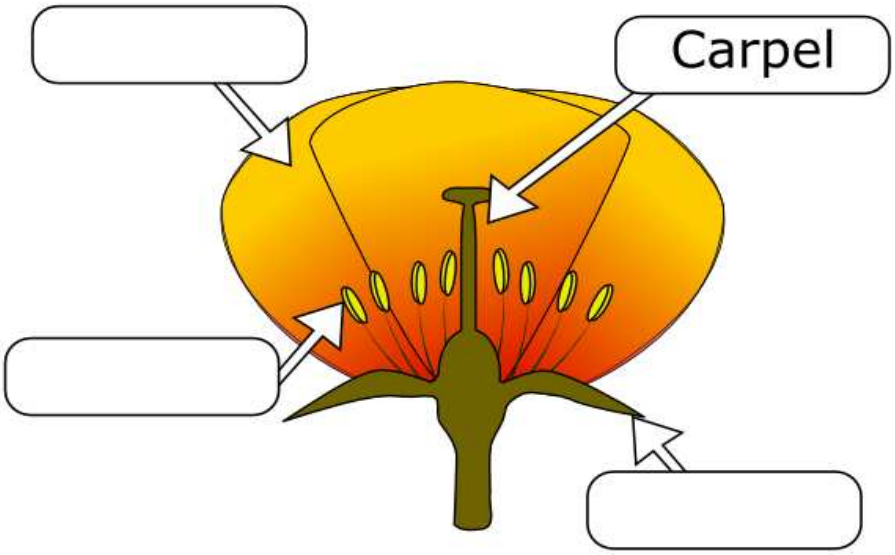
1 mark

e) In which mould will the jelly set the fastest? ……

1 mark

……

6 Alice was looking at a flower. She cut it through the middle and drew this diagram.



a) Label the flower using the words from the list.

Sepal **stamen** **root** **petal** **leaf**

1 mark

Alice noticed that the flower was brightly coloured and smelled nice. Her mother told her that this was to attract insects.

b) Why would a plant want to attract insects to its flowers?

……

……

……

1 mark

Later in the year the flowers in Alice's garden change. The petals fall off, the ovary in the carpel swells and becomes a fruit full of seeds.

The seeds must not fall close to the plant.

C) How do the following plants disperse their seeds? Choose wind, animal or explosion. (One has been done for you)

Dandelion

Sycamore

wind	Explosion	animal

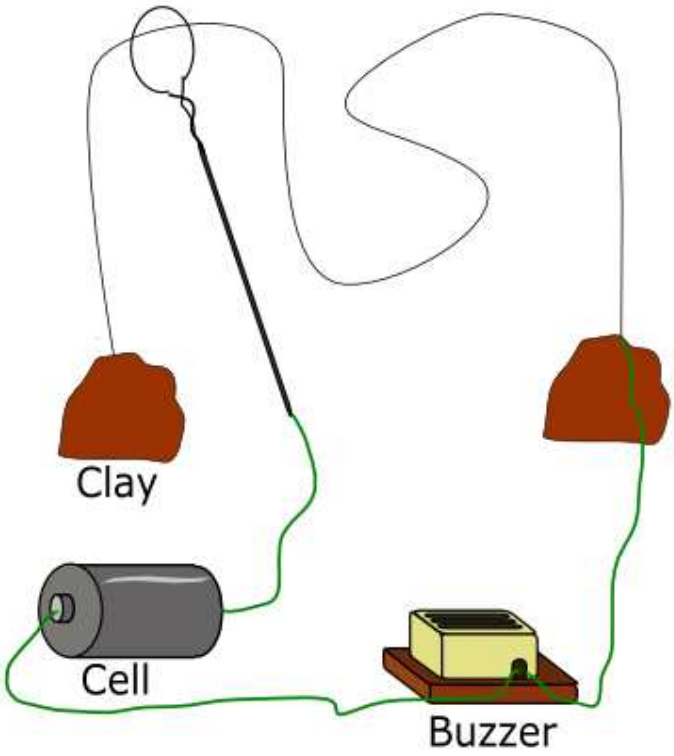
Pea

berry

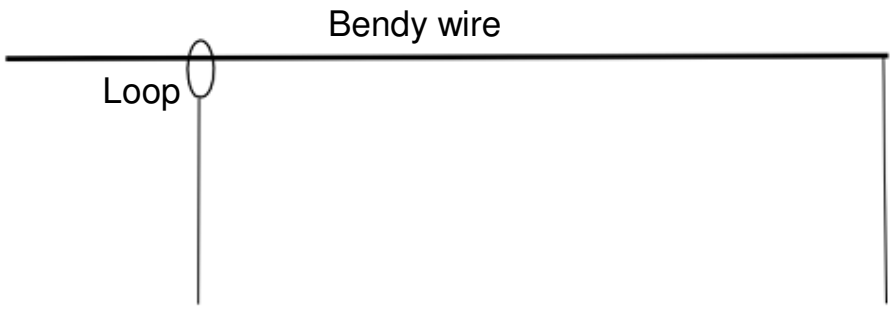
1 mark

7

Sam went to the fair and played a game of “steady hand” When he went to school he decided to make his own steady hand game. Here is what he made.



a) Complete the circuit diagram below. Make sure you use the correct symbols for the cell and buzzer.



3 marks

Sam used green plastic coated wire to connect most of the components together. But he had to use bare wire for the “bendy wire” and the loop.

b) Explain why Sam could not use the plastic coated wire.

.....

.....

1 mark

Copper is normally used to make wires.

c) Tick **one** boxes to show why copper is a good choice for wires.

Copper is magnetic ☐

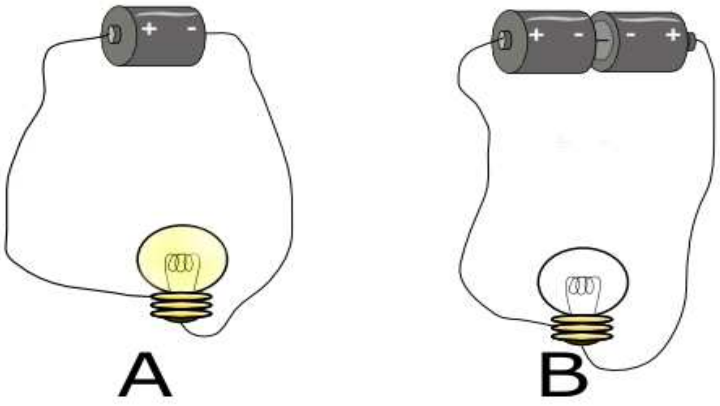
Copper conducts electricity ☐

Copper is shiny ☐

Copper is an insulator ☐

1 mark

Sam thought his bulb was too dim. He thought that adding another cell would make his bulb brighter. He tested his idea out using the circuits A and B.



He was surprised to see that the bulb in B did not light at all!

d) Look carefully at the two circuits. Why does bulb B not light?

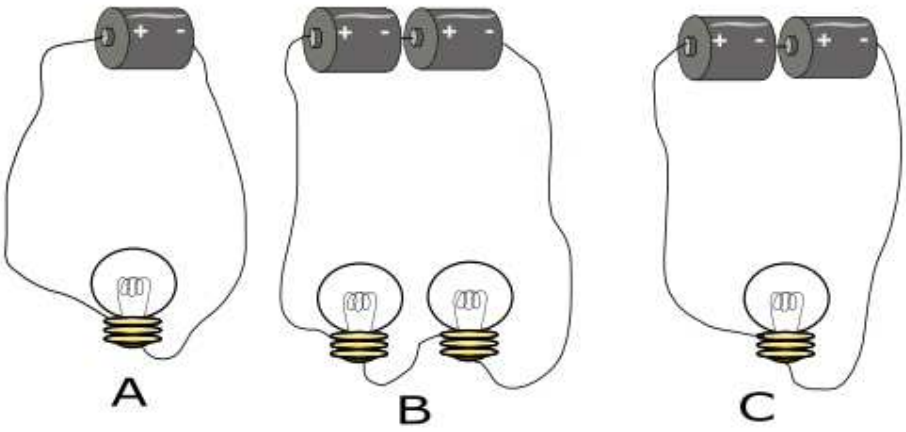
……

……

……

1 mark

e) Look at circuits A, B, C. The bulbs are on but the brightness is not shown. Write **true** or **false** next to each idea below.



The bulbs in A will be brighter than the bulbs in C ……

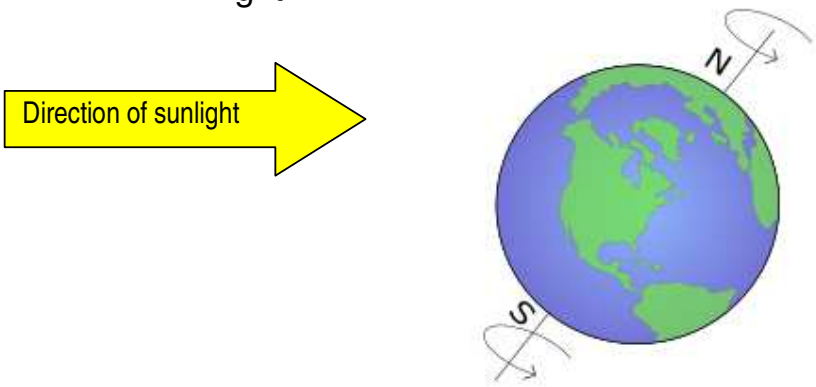
The bulb in C will be the same brightness as the bulb in B ……

The bulbs in B will be the same brightness as the bulb in A ……

1 mark

8

At any one time part of the Earth is in daylight and part in night.



a) Draw a line on the Earth and label it to showing which part is in daylight and which part is in night.

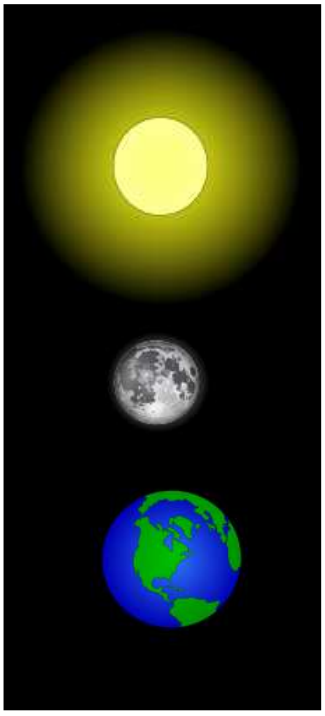
1 mark

b) Write **true** or **false** next to each idea below

The Sun is luminous ……..

The Moon is luminous …….

The Earth is luminous …….



1 mark

Total