

Transcription of the Braille Versiob

SEB

Key Stage 2
Science

Test ST012P

Transcription of the Braille Version

[braille page 1]

Instructions

On your paper write:

Your full name:

Your date of birth:

Your school:

You have 25 minutes for this test plus your additional time allowance.

For some questions, you may need to draw an answer instead of writing one.

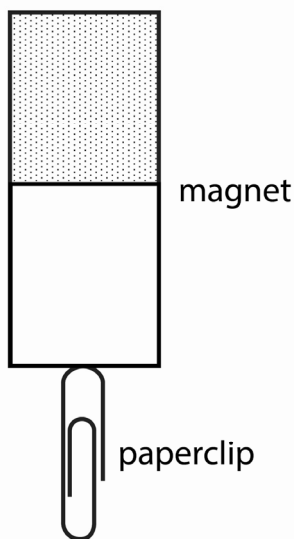
Your teacher will give you a copy of the diagram on film for these questions.

Missing words, numbers or letters are shown by the symbol --

.....

[braille page 2, facing page 3]

Diagram for use with question 1 (a)



[braille page 3]

1. Magnetic forces

1 (a) Ali has four different magnets and some paperclips. The paperclips are attracted to the magnets.

Use the film copy of the diagram on the opposite page. Draw one arrow to show the direction of the magnet's force on the paperclip. [1 mark]

1 (b) Name the force on the paperclip that pulls in the opposite direction to the magnet. [1 mark]

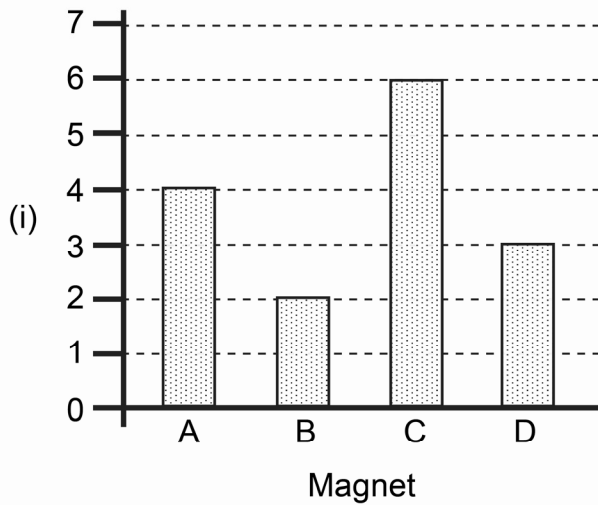
1 (c) Ali wants to find the strongest magnet. He adds paperclips to a magnet one at a time so they make a chain. He stops when no more paperclips stick.

He repeats this with the other three magnets.

How will Ali know which magnet is the strongest? [1 mark]

[braille page 4, facing page 5]

Graph for use with question 1 (d)



[braille page 5]

1 (d) The graph on the opposite page shows Ali's results. One axis on the graph has been labelled.

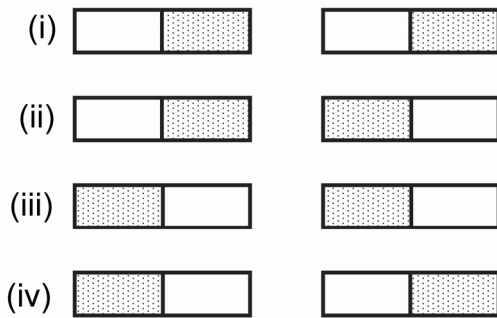
(i) Write the label for the other axis. [1 mark]

1 (e) Ali moves magnet A towards magnet B. Magnet B moves away from magnet A even though Ali does not touch magnet B.

Why did magnet B move away from magnet A? [1 mark]

[braille page 6, facing page 7]

Diagrams for use with question 1 (f)



[braille page 7]

1 (f) Ali tries different ways of putting the magnets together.

Look at the diagrams (i), (ii), (iii) and (iv) on the opposite page.

The magnets in diagram (i) will move together.

(ii) Write down what the magnets will do in diagram (ii). Write move together, move apart or do not move.

(iii) Write down what the magnets will do in diagram (iii). Write move together, move apart or do not move.

(iv) Write down what the magnets will do in diagram (iv). Write move together, move apart or do not move.

[1 mark]

[braille page 8]

2. Electricity investigation

2 (a) Lena has this equipment: 1 switch, 6 wires, 2 large cells (batteries), 1 small cell (battery) and 1 bulb.

Which three questions can Lena investigate using only the equipment listed above? Choose three answers from A, B, C, D and E below.

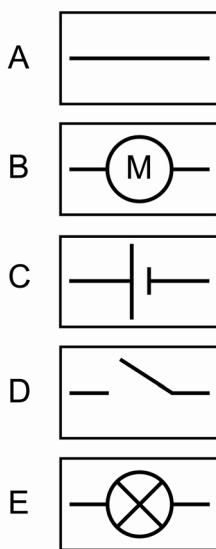
- A. Do different cells affect the brightness of a bulb?
- B. How many bulbs can be lit by one cell?
- C. Does the number of cells affect the brightness of a bulb?
- D. Does the number of switches affect the brightness of a bulb?
- E. Does the direction of cells affect the brightness of a bulb?

[2 marks]

[braille page 9, facing page 10]

Diagram for use with question 2 (b)

Symbol



[braille page 10]

2 (b) Look at the diagrams on the opposite page.

- (i) Which diagram A, B, C, D or E shows the symbol for a bulb?
- (ii) Which diagram A, B, C, D or E shows the symbol for a wire?
- (iii) Which diagram A, B, C, D or E shows the symbol for a cell?
- (iv) Which diagram A, B, C, D or E shows the symbol for a switch?

[1 mark]

2 (c) Lena collected some wires. The wires are made of different metals. They are the same width and have different lengths.

Lena says, "I want to know if the wires made of different metals will change the brightness of the bulb in the circuit."

What must Lena do to the wires to make her test fair? [1 mark]

[braille page 11]

2 (d) Lena makes her test fair.

Which two statements show the two pieces of evidence Lena should collect for her results? Choose two answers from A, B, C and D below.

- A. how quickly the bulb lights up
- B. how bright the bulb is
- C. how many wires there are
- D. what metals the wires are made of

[1 mark]

3. The solar system

3 (a) Joe is finding out about the solar system.

He writes four statements about the Sun.

Write true or false for each statement about the Sun.

- (i) The Sun is a light source.
- (ii) The Sun orbits the Earth.
- (iii) The Sun is smaller than the Earth.
- (iv) The Sun is a circle.

[2 marks]

[braille page 12]

3 (b) Joe finds out that days and years take different amounts of time on different planets.

planet	time for one day (earth days)	time for one year (earth days)
Mercury ...	59	88
Venus	243	225
Earth	1	365
Mars	1	687
Jupiter	0.4	4329

Look at the table.

- (i) Which planet has the shortest day? [1 mark]
- (ii) Which planet orbits the Sun quickest? [1 mark]

3 (c) Joe says, "The planets with shorter days have shorter years."

Look at the table above.

Do the planets with shorter days have shorter years? Write yes or no.

Use the information in the table to explain your answer. [1 mark]

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3 (d) All of the planets in our solar system have days and nights.

What movement in space causes day and night on Earth? [1 mark]

[braille page 14]

4. Investigating grip

4 (a) Andy and Jun have different ways of testing how well different shoes grip.

Andy's plan

- 1) Ask someone to run around in the playground.
- 2) Time how long it is before they fall over.
- 3) Do the test again with different shoes.

Jun's plan

- 1) Put the shoe on a table and tie string to it.
- 2) Add a weight to the other end of the string and let it hang over the edge of the table.
- 3) See how much weight it takes to move each shoe.
 - (i) What is the unit of measurement used to measure how much time it takes to fall over? [1 mark]

(ii) What is the unit of measurement used to measure how much weight it takes to move the shoe? [1 mark]

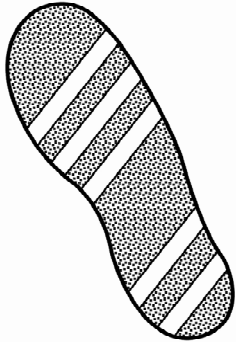
4 (b) Andy and Jun both plan to make their tests fair.

Suggest one reason why Jun's plan is better than Andy's plan.

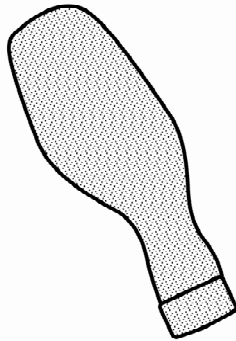
Jun's plan is better because --. [1 mark]

[braille page 15, facing page 16]
Diagrams for use with question 4 (c)

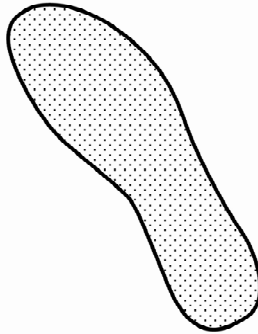
Shoe A



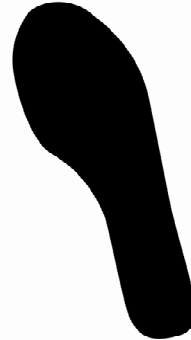
Shoe B



Shoe C



Shoe D



[braille page 16]

4 (c) They decide to use Jun's plan to test some shoes.

Jun predicts that shoe D will have the least grip. Look at the shoes in the diagrams on the opposite page.

Explain why shoe D is likely to have the least grip. [1 mark]

4 (d) Look at the table of results below.

shoe weight needed to move the shoe (units)

A 250

B 100

C 125

D 25

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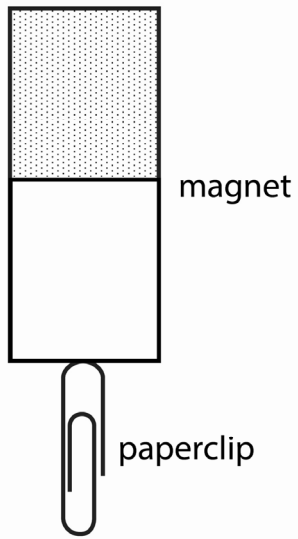
Do the results support Jun's prediction that shoe D will have the least grip?
Write yes or no.

Explain how the results support or do not support Jun's prediction. [1 mark]

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Please check your answers
End of test

[Diagram and film copies for use with question 1 (a)]



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