

**ENTRY LEVEL CERTIFICATE
 SCIENCE (SCIENCE PLUS)**

R482 P.4 (v.1)

Test P.4 G Force
Version 1

Approx. 15 minutes



Candidate
 Name

Centre
 Number

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Candidate
 Number

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Date

TIME You will need about 15 minutes for this test.

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number, candidate number and the date in the spaces at the top of this page.

Answer all questions.

Write your answers in the spaces provided on the question paper.

					FOR TEACHER'S USE	
					Raw mark /15	
Raw mark	3–5	6–8	9–11	12–15	Points /2	
Points	0.5	1	1.5	2		

This document consists of **4** printed pages.

- 1 The unit of force was named after a famous scientist.
Who was the scientist?

Put a tick () in the correct box.



Albert Einstein



James Joule



Isaac Newton

[1]

- 2 Which two of these are caused by the force of gravity?

Put rings around the two correct answers.

apple falling from a tree

current in an electrical circuit

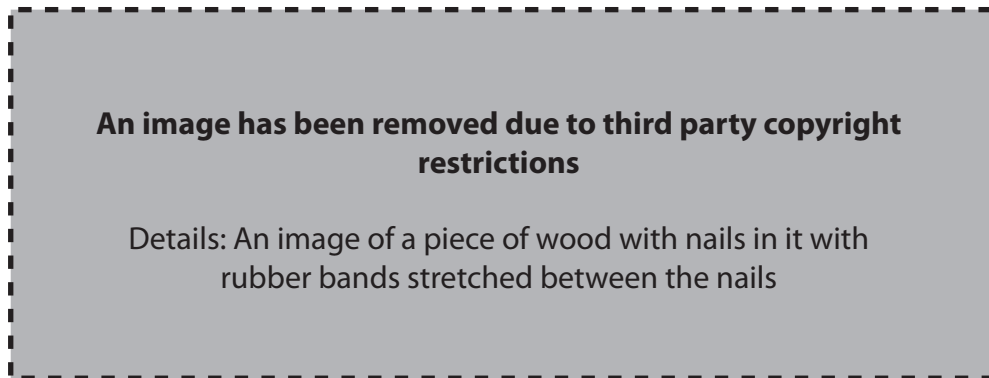
magnets repelling

weight

[2]

- 3 Kim has three rubber bands. They are exactly the same and they are all 5 cm long.

He stretches them between nails in a piece of wood. They are now different lengths.



- (a) Which band needs most force to stretch it? Choose A, B or C. _____ [1]
- (b) Which band exerts most force on the nails? Choose A, B or C. _____ [1]
- (c) Kim takes band A off the nails and measures it. It is 5 cm long.
How long is band C after he takes it off the nails?

Put a ring around the correct answer.

less than 5 cm 5 cm more than 5 cm [1]

- 4 The picture shows a Space Shuttle being launched.

(a) Write down the name of the part labelled R.
_____ [1]

(b) What is the job of the part labelled R?
_____ [1]

(c) Which part in the diagram comes back to Earth and can be reused?
_____ [1]

(d) What happens to parts that do not get back through the atmosphere?
_____ [1]



- 5 (a) Speed cameras help to reduce the speed of cars.
Finish the sentences. Choose words from this list.

air bags
chicanes
crumple zones
seat belts
speed humps

**A photograph has
been removed due to
third party copyright
restrictions**

Details: A photograph
of a speed camera

The speed of cars can also be reduced by using

_____ and _____ .

The driver and passengers are safer in a crash if they wear

_____ .

_____ act as large cushions to protect the

driver from hitting the steering wheel.

[4]

- (b) Robyn wants to find the speed of cars, in metres per second, as they pass in front of the school.

She measures a distance of 100 metres.

A friend helps her measure the time it takes for a car to travel 100 metres.

Robyn uses an equation to calculate the speed .

Finish the equation she uses.

speed =

[1]