

Ma

KEY STAGE

2

LEVELS

3–5

# Mathematics

## Paper 2

Calculator **not** allowed

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
School name						
DfE number						

2015



D 0 0 0 7 0 A 0 1 2 4

[BLANK PAGE]

Please do not write on this page.



# Instructions

You **may not** use a calculator to answer any questions in this paper.

Work as quickly and as carefully as you can.

You have **45 minutes** for this test.

If you cannot do one of the questions, **go on to the next one**.

You can come back to it later, if you have time.

If you finish before the end, **go back and check your work**.

**Follow the instructions for each question carefully.**



This shows where you need to put the answer.

If you need to do working out, you can use any white space on a page.

Do not write over any barcode.

**Some questions have an answer box like this:**



For these questions you may get a mark for showing your working.



D 0 0 0 7 0 A 0 3 2 4

1

Write in the missing number.



$$1 + 10 + \boxed{\phantom{00}} = 100$$

1

1 mark

2

Put these temperatures in order, starting with the **lowest**.

21°C

-13°C

-24°C

0°C

35°C



°C

°C

°C

°C

°C

lowest

2

1 mark



3

These are some prices in a fish and chip shop.

Fish	£2.30	Peas	35p
Sausage	£1.80	Curry sauce	40p
Chips (small bag)	60p	Bread roll	30p
Chips (large bag)	90p	Pickled onion	28p

Alfie buys one fish, a large bag of chips and a pickled onion.

How much does he pay?



3a

1 mark

Megan buys a sausage and a bread roll.

Chen buys a small bag of chips and a curry sauce.

How much **more** does Megan pay than Chen?



Show  
your  
working

3bi

3bii

2 marks



D 0 0 0 7 0 A 0 5 2 4

4

Here is a doubling sequence.

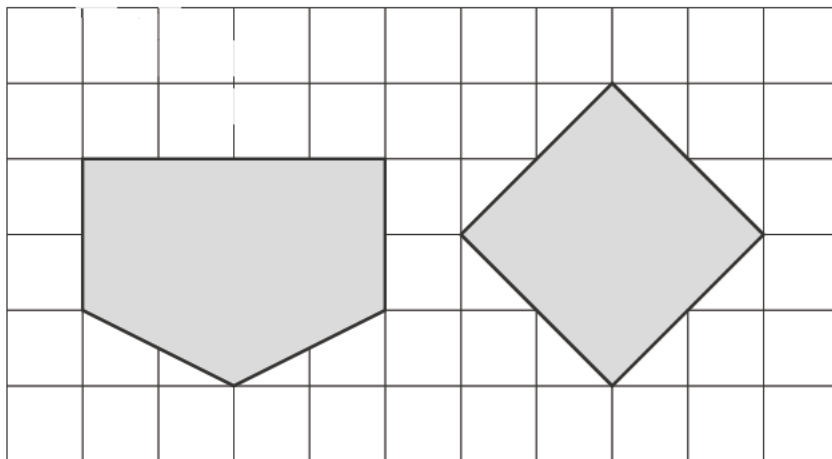
Write the three missing numbers.

\_\_\_\_\_ 4i  
\_\_\_\_\_ 4ii  
\_\_\_\_\_ 2 marks

5

Here are two shapes on a square grid.

For each shape, write how many **right angles** it has.



5

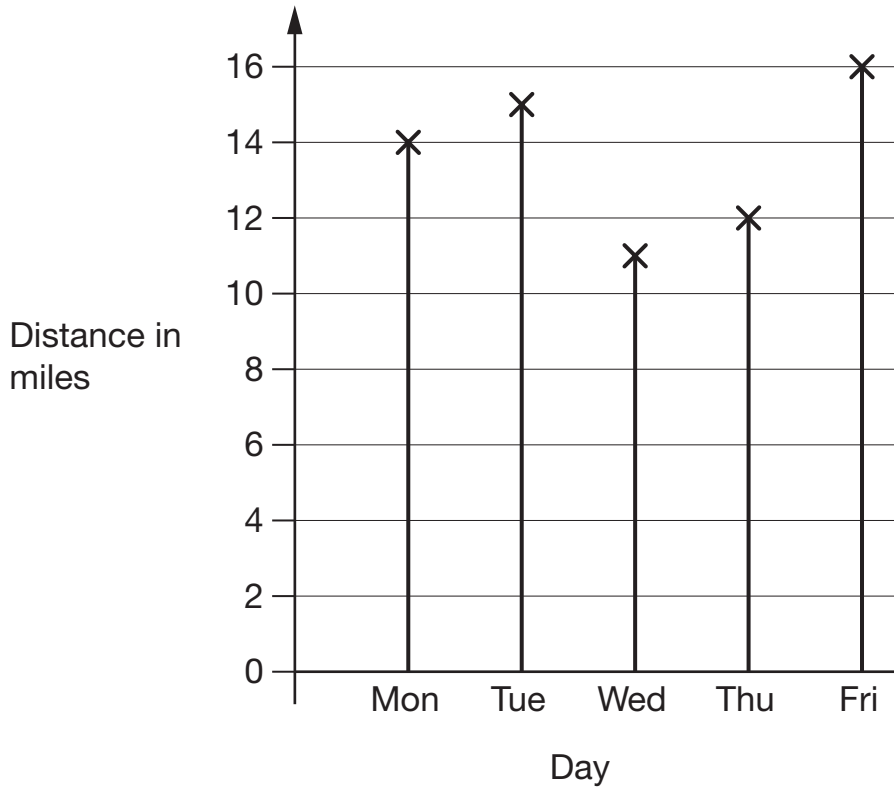
1 mark



6

Amy went on a cycling holiday.

This chart shows how far she cycled each day.



How much **further** did Amy cycle on Friday than on Wednesday?



miles

6a

1 mark

How far did Amy cycle **altogether** on the three days she cycled the most?



miles

6b

1 mark



D 0 0 0 7 0 A 0 7 2 4

7

Megan has a rectangular tile with this design on it.



Here are five more rectangular tiles.



A



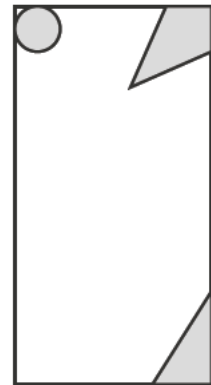
B



C



D



E

Write the letters of **all** the tiles that have the same design as Megan's tile.



\_\_\_\_\_

71

711

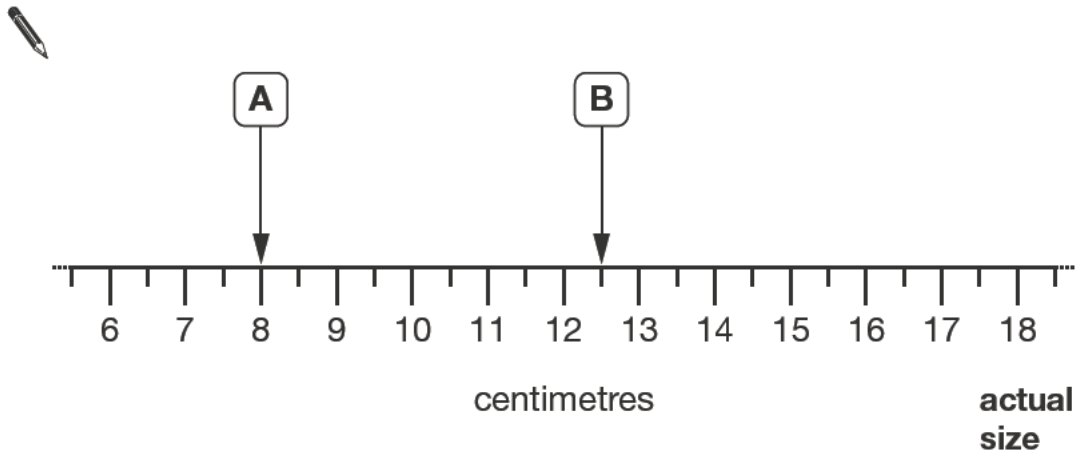
2 marks





8

Here is part of a centimetre scale, with two points marked.



What is the distance between point **A** and point **B**?

A small pencil icon is positioned to the left of a rectangular box. Inside the box, the text 'cm' is written.

8a

1 mark

Point **C** is **twice as far** from point A as it is from point B.

On the scale above, mark one place where point C could be.

8b

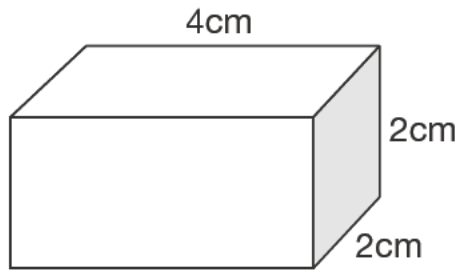
1 mark



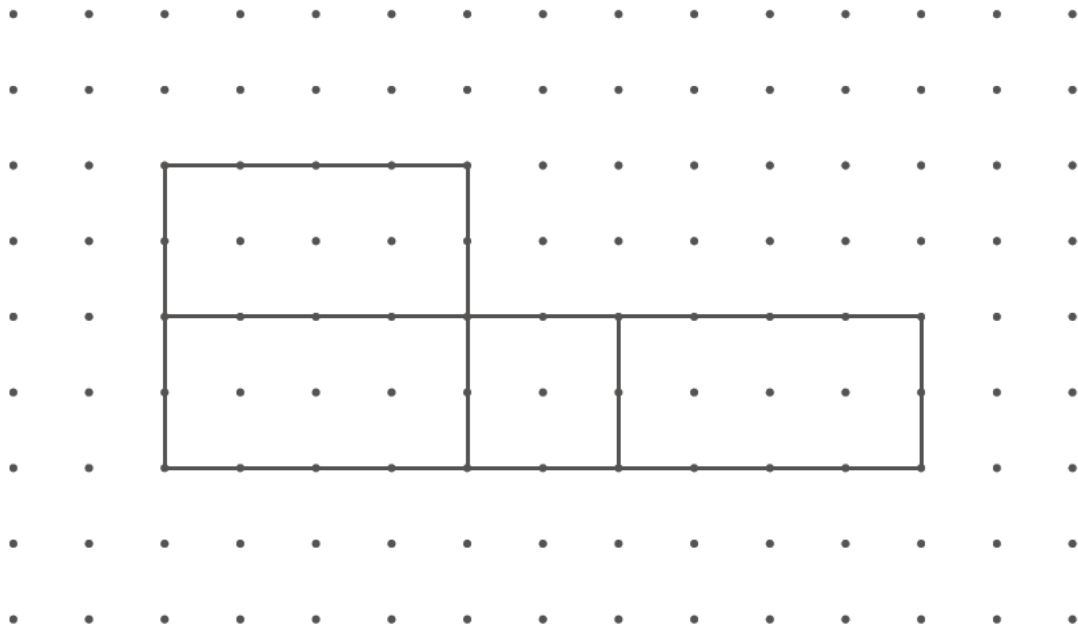
D 0 0 0 7 0 A 0 9 2 4

9

Look at the cuboid below.



Draw **two** more faces to complete the net of the cuboid.



9a

1 mark

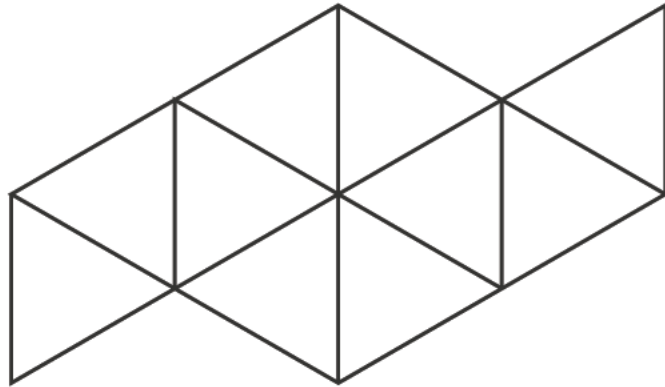
9b

1 mark



10

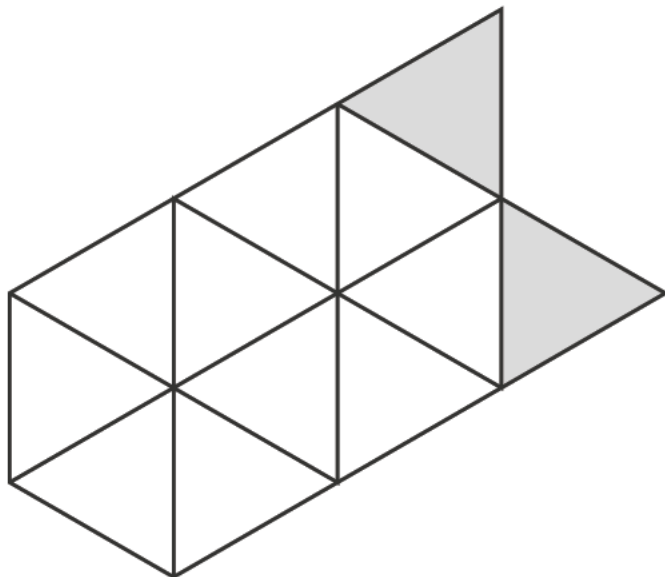
Shade  $\frac{1}{5}$  of this shape.



10a

1 mark

Shade **more** triangles on this shape so that  $\frac{1}{3}$  is shaded.



10b

1 mark

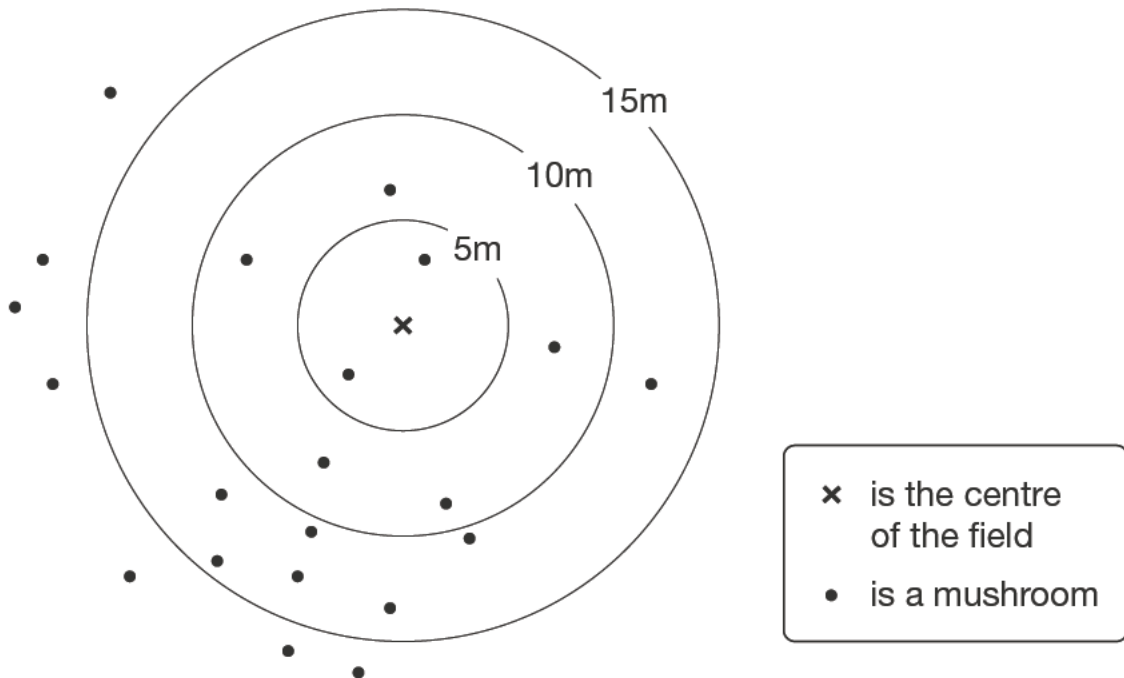


D 0 0 0 7 0 A 0 1 1 2 4

11

Class 6 did a survey of mushrooms growing in a field.

The diagram shows the distances of mushrooms from the centre of the field.



How many mushrooms were more than 10 metres from the centre?



11a

1 mark

What **fraction** of the mushrooms were less than 10 metres from the centre?



11b

1 mark

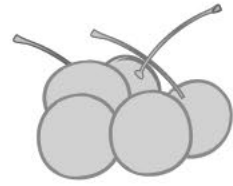


12

Seb had some cherries.

Every day he ate 10 cherries and gave 5 away.

After he gave the last 5 cherries away, he had eaten 40 cherries altogether.



How many cherries did Seb have at the start?

12i

12ii

2 marks

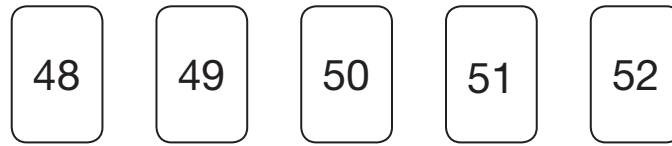
Show your working

A large rectangular box for showing working. On the left side, there is a callout box with a pencil icon and the text "Show your working". Inside the main box, at the bottom right, there is a smaller, empty rectangular box for the final answer.

D 0 0 0 7 0 A 0 1 3 2 4

13

Here are five number cards.



Use each card **once** to make every statement below correct.



is a multiple of 3

is a multiple of 4

is a multiple of 5

is a multiple of 6

is a multiple of 7

13i

13ii

2 marks



14

Write in the missing number.



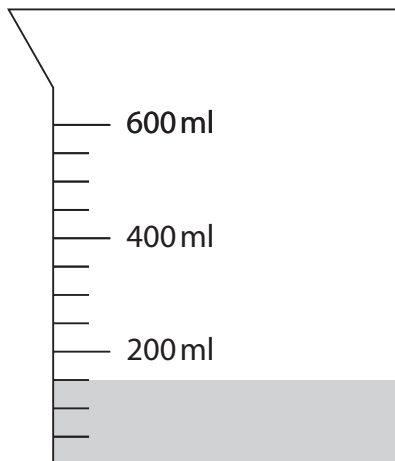
$$8.5 + 14.7 = 10.2 + \boxed{\phantom{00}}$$

14

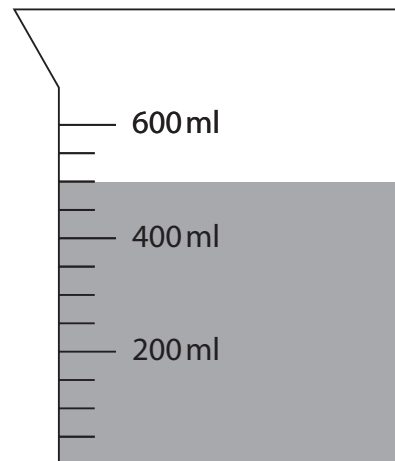
1 mark

15

One jug contains water and the other jug contains oil.



Water



Oil

How much **more** oil is there than water?


15

1 mark



D 0 0 0 7 0 A 0 1 5 2 4

Write the missing number in each calculation.



$$25 \div \square = 3 \text{ remainder } 4$$

16a

---

1 mark

$$35 \div \square = 4 \text{ remainder } 3$$

16b

---

1 mark



**17**

Here is part of the morning bus timetable from Winton to Yansley.

Winton	9:35	9:55	10:15	10:35
Ingham	9:45	10:05	10:25	10:45
Carston	10:01	10:21	10:41	11:01
Dubley	10:23	10:43	11:03	11:23
Yansley	10:55	11:15	11:35	11:55

How many minutes does the bus take to get from Ingham to Dubley?




17a

1 mark

Megan is in Carston.

She wants to be in Yansley before 11:30

What is the time of the latest bus she can take from Carston?




17b

1 mark

One morning, the 10:35 bus from Winton gets to Carston  
3 minutes early.

What time does it get to Carston?




17c

1 mark



D 0 0 0 7 0 A 0 1 7 2 4

18

Circle the number that is closest to 20



19.95

20.1

19.09

20.09

20.201

18  
1 mark

19

Calculate  $936 \div 36$

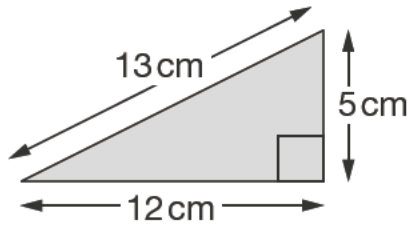


Show  
your  
working

19i  
19ii  
2 marks

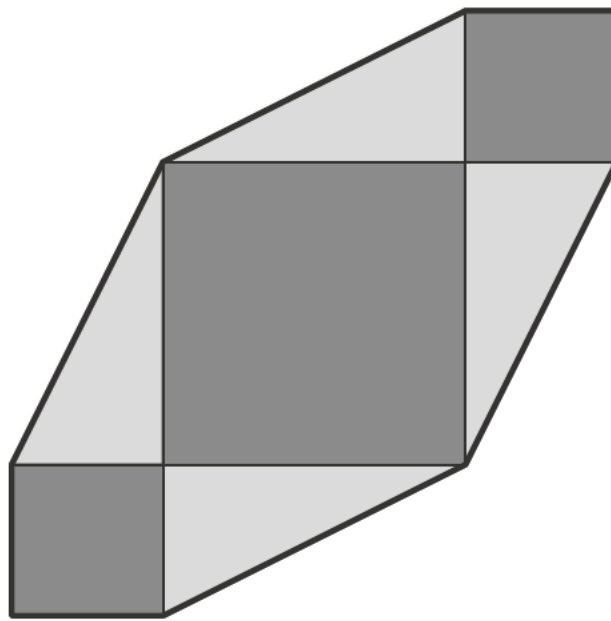


Chen has some right-angled triangular tiles.



Not actual size

He makes this shape with four of his triangular tiles and three square tiles.



Not actual size

What is the **perimeter** of Chen's shape?

Show your working

cm

20i

20ii

2 marks



D 0 0 0 7 0 A 0 1 9 2 4

21

The numbers in this sequence increase by equal amounts each time.

Write in the three missing numbers.



21i

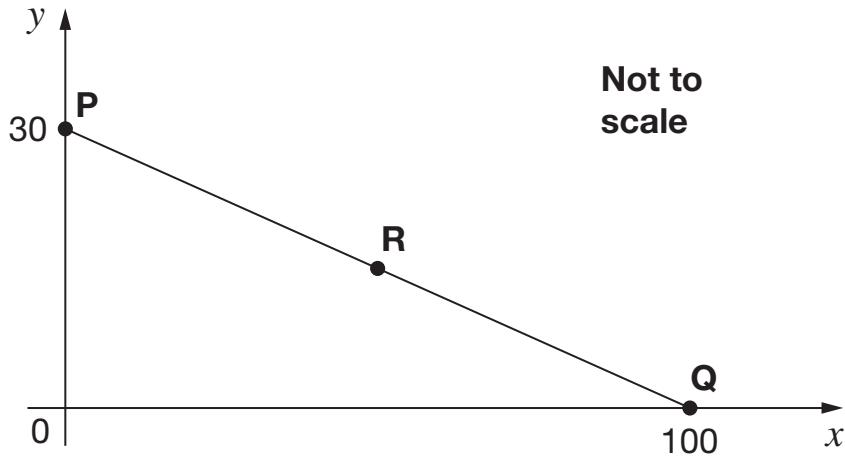
1 mark

21ii

1 mark

22

In this diagram **R** is an equal distance from **P** and **Q**.



What are the coordinates of **R**?



**R** =

22

1 mark

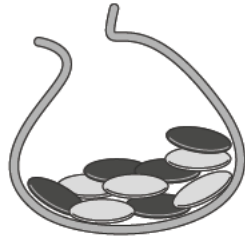


23

Megan and Chen each have a bag of counters.

Megan's bag has **5** blue counters and **5** green counters.

Chen's bag has **10** blue counters, **5** green counters and **5** red counters.



Megan's bag



Chen's bag

They each take a counter from their bag without looking.

Chen says,

***'I am more likely than Megan to take a blue counter.'***

Is Chen correct?  
Circle **Yes** or **No**.

 Yes / No

Explain how you know.



23

1 mark



D 0 0 0 7 0 A 0 2 1 2 4

[END OF TEST]

Please do not write on this page.



[BLANK PAGE]

Please do not write on this page.





2015 key stage 2 levels 3–5 mathematics test: paper 2 - calculator not allowed  
Print version product code: STA/15/7214/p ISBN: 978-1-78315-416-6  
Electronic PDF version product code: STA/15/7214/e ISBN: 978-1-78315-444-9

### For more copies

Additional printed copies of this booklet are not available. It can be downloaded from [www.gov.uk/government/publications](http://www.gov.uk/government/publications) from Tuesday 7 July.

© Crown copyright and Crown information 2015

### Re-use of Crown copyright and Crown information in test materials

Subject to the exceptions listed below, the test materials on this website are Crown copyright or Crown information and you may re-use them (not including logos) free of charge in any format or medium in accordance with the terms of the Open Government Licence v3.0 which can be found on the National Archives website and accessed via the following link: [www.nationalarchives.gov.uk/doc/open-government-licence](http://www.nationalarchives.gov.uk/doc/open-government-licence). When you use this information under the Open Government Licence v3.0, you should include the following attribution: "Contains public sector information licensed under the Open Government Licence v3.0" and where possible provide a link to the licence.



### Exceptions - third party copyright content in test materials

You must obtain permission from the relevant copyright owners, as listed in the '2015 key stage 2 test materials copyright report', for re-use of any third party copyright content which we have identified in the test materials, as listed below. Alternatively you should remove the unlicensed third party copyright content and/or replace it with appropriately licensed material.

### Third party content

These materials contain no third party copyright content.

If you have any queries regarding these test materials contact the national curriculum assessments helpline on 0300 303 3013 or email [assessments@education.gov.uk](mailto:assessments@education.gov.uk).



5 050070A02424