

# Key stage 1

## Mathematics

Administering the mathematics test  
Paper 2: reasoning

# CONFIDENTIAL

This pack must be kept secure and unopened until **Tuesday 3 May 2016**. The pack must not be opened until the pupils are in the test room ready to complete the first administration of the test.

Please ensure you have read and understood the 2016 test administration guidance before opening this pack.

### Pack contents:

- An overview of the key stage 1 mathematics: Paper 2: reasoning (overleaf)
- 10 copies of Paper 2: reasoning

**For test administration**

## 2016 Key stage 1 mathematics test Paper 2: reasoning

The key stage 1 mathematics test consists of 2 papers. The papers must be administered in order. Pupils do not have to sit both papers on the same day. If both papers are administered on the same day, pupils may benefit from a break between papers. Both papers can be administered to the whole class, smaller groups of pupils or on an individual basis. However, test packs must not be opened until the pupils are in the test room ready to complete the first administration of the test.

### Paper 2: reasoning

The following information explains how to administer mathematics Paper 2: reasoning. If you have any questions, you should check with your headteacher or key stage 1 test co-ordinator before you administer the test.

Please make sure you follow these instructions correctly to ensure that the test is properly administered. Failure to administer the test correctly could result in a maladministration investigation at the school.

<b>Format</b>	<ul style="list-style-type: none"><li>• This component of the test consists of a single test paper.</li><li>• It is expected that the reasoning paper will take approximately 35 minutes to complete (not strictly timed).</li><li>• It is at your discretion to choose when or if pupil(s) require a break during the test or whether, if appropriate, to stop the test early.</li><li>• The paper includes a practice aural question and 5 aural questions.</li><li>• After the aural questions, the time for the remainder of the paper should be approximately 30 minutes.</li></ul>
<b>Equipment</b>	<p>Each pupil will need the equipment specified below:</p> <ul style="list-style-type: none"><li>• a blue / black pen or a dark pencil</li><li>• a sharp, dark pencil for mathematical drawing</li><li>• a ruler (showing centimetres and millimetres)</li><li>• a rubber (optional). If rubbers are not provided, you should tell pupils that they may cross out any answers they wish to change.</li></ul> <p>Pupils may use the following equipment, if this is normal classroom practice, provided they only give word-for-word translations:</p> <ul style="list-style-type: none"><li>• bilingual dictionaries or electronic translators</li><li>• bilingual word lists</li><li>• monolingual English electronic spell checkers.</li></ul> <p>Pupils are <b>not</b> allowed the following equipment in the test:</p> <ul style="list-style-type: none"><li>• calculators</li><li>• tracing paper</li><li>• number apparatus e.g. ten base materials, number squares, number lines etc.</li></ul>
<b>Assistance</b>	<ul style="list-style-type: none"><li>• You must ensure that nothing you say or do during the test could be interpreted as giving pupils an advantage, e.g. indicating that an answer is correct or incorrect, or suggesting the pupil looks at an answer again.</li><li>• If a pupil requests it, a question may be read to the pupil on a one-to-one basis. You can also read questions 6 to 31 if a pupil has difficulty in reading them for themselves.</li><li>• If reading to a pupil, you can read words and numbers but not mathematical symbols. This is to ensure that pupils are not given an unfair advantage by having the function inadvertently explained by reading its name.</li><li>• There is no specific hearing impairment guidance for this test, but be careful when signing numbers and mathematical signs. You must ensure you do not convey information that would give pupils an advantage. Guidance for administering the test to pupils with a visual impairment is contained in the modified test packs.</li><li>• At a pupil's request, you may point to parts of the test paper such as charts, diagrams, statements and equations, but you must not explain the information or help the pupil by interpreting it.</li></ul>

<b>Assistance</b> (continued)	<ul style="list-style-type: none"> <li>For this paper there is an optional script for the aural questions, which you can choose to provide to pupils to access this part of the test.</li> </ul> <p>The examples below illustrate how to deal with some common situations.</p> <p><b>Q.</b> What does 'fraction' mean?  <b>A.</b> I can't tell you, but think hard and try to remember. We can talk about it after the test.</p> <p><b>Q.</b> What does '&gt;' or '&lt;' mean?  <b>A.</b> I can't tell you, but think hard and try to remember. We can talk about it after the test.</p> <ul style="list-style-type: none"> <li>If any everyday context or words related to a question are unfamiliar to a pupil, you may show them related objects or pictures, or describe the related context.</li> </ul>
<b>Before the test begins</b>	<ul style="list-style-type: none"> <li>Review the list of pupils with any particular individual needs, e.g. pupils who may need to use the optional pupil script for the aural questions, or who may need a scribe or a transcript made at the end of the test.</li> <li>Ensure that you know how to administer any access arrangements correctly. Please refer to the 2016 key stage 1 access arrangements guidance.</li> <li>The optional pupil script for the aural questions can be found at the back of this document. Please photocopy it for the pupils that need it.</li> <li>Check that there are enough administrators to maintain supervision and support for the test. You should consider the possibility of at least one test administrator needing to leave the room with a pupil.</li> <li>Ensure that you understand how to deal with issues during the tests.</li> </ul>
<b>How to deal with issues during the test</b>	<p>It is impossible to plan for every scenario. Whatever action you take, pupil safety must always be your first consideration.</p> <p>In the following circumstances, you will need to stop the test either for an individual pupil or for the whole cohort:</p> <ul style="list-style-type: none"> <li>test papers are incorrectly collated or the print is illegible</li> <li>a fire alarm goes off</li> <li>a pupil is unwell</li> <li>a pupil needs to leave the test room during the tests</li> <li>a pupil is caught cheating.</li> </ul> <p>If you need to stop the test:</p> <ul style="list-style-type: none"> <li>make a note of the time</li> <li>make sure pupils are kept under test conditions and that they are supervised</li> <li>if they have to leave the room, ensure they don't talk about the test</li> <li>speak to your test co-ordinator or a senior member of staff for advice on what to do next</li> <li>consider contacting the national curriculum assessments helpline on 0300 303 3013 for further advice.</li> </ul> <p>You should brief your headteacher on how the incident was dealt with, once the test is over.</p>
<b>What to do at the start of the test</b>	<ul style="list-style-type: none"> <li>Check that seating is appropriately spaced and that no pupil can see another pupil's test paper.</li> <li>Check that pupils don't have any materials or equipment that may give them extra help.</li> <li>Check that pupils don't have mobile phones or other disruptive items.</li> <li>Ensure that each pupil has a copy of mathematics Paper 2: reasoning.</li> </ul>

## What to say at the start of the test

It is important to brief pupils fully at the start of each test. You should use these instructions to introduce mathematics Paper 2: reasoning.

### **The wording of these instructions can be adapted, provided the meaning is retained.**

- Explain to the pupils that this is the key stage 1 mathematics Paper 2: reasoning. Tell the pupils that they should have a test booklet in front of them.
- Tell the pupils to write their name on the front of their test booklet.
- Tell the pupils that you will explain how to write answers to each question and that they will have plenty of time to work out the answers.
- Tell the pupils that they must work on their own and they must not call out the answers.
- Tell the pupils, if they want to change an answer, they should put a line through the response they don't want to be marked.
- Explain to the pupils that, if they need to change a diagram or graph, they must ensure they rub out their answer completely before writing a new answer.
- Explain that some questions will have boxes for them to write their answers in and they can do any working out in the white spaces around the boxes, if they need to.
- Where necessary, you can show the pupils how to draw a tick, circle or cross to indicate the answer.
- Ask the pupils to open their test booklet at page 2. Explain that Amy and Abdul are 2 children who are in these questions. Explain that there are different children mentioned in other questions as well. Their names are Sam, Ben, Sita and Kemi.

### **Introducing the aural questions**

- Explain to the pupils that you will read aloud some questions for them to answer. Explain that you will read each question twice only, leaving a short gap in between. Tell the pupils that they must listen very carefully when you read the questions.

(If any pupils are using the optional pupil script to support their access to these 5 questions, you should follow the guidance at the back of this document.)

- Ask the pupils to turn to page 3 of the booklet. Explain that there is a practice question on page 3.
- When reading the question to the pupils, remember to repeat the question.
- Repeat the bold text only.

*This is a practice question for us to do together.*

(You may help pupils locate the question where necessary.)

#### **Look at the domino.**

#### **How many dots does the domino have altogether?**

*Write your answer in the box.*

- Before proceeding, ensure that the pupils know where they should have written their answer and the number they should have written and discuss methods the pupils used to work out their answer. Allow the pupils to change their answers to the correct one by crossing out or rubbing out, to make sure they know how to correct errors.
- Explain to the pupils that you will now read out questions 1 to 5.
- Tell the pupils that they should try to answer all of the questions. They should write their answer in the correct place for that question. (If any pupils are using the optional pupil script, remind them to write their answers in the test booklet and not on the script.)
- Remind the pupils that you can't help them answer these next questions. Tell the pupils that they should try to work them out on their own. If they can't answer a question, they should move onto the next one.
- Ask the pupils if they have any questions they want to ask you before you start.
- Then read questions 1 to 5, allowing time for pupils to write their answers. When reading the question to the pupils, remember to repeat the question. Repeat the bold text only. At the end of each question, allow sufficient time for pupils to complete what they can.

<b>Question 1</b>	<p>Question 1</p> <p><b>Circle the correct number of tens and ones to make sixty-three.</b></p>
<b>Question 2</b>	<p>Turn the page in your booklet and find the answer box for question 2.</p> <p>Question 2</p> <p><b>There are eleven girls and twelve boys in a class.</b></p> <p><b>How many children are there in total?</b></p> <p>Write your answer in the box.</p>
<b>Question 3</b>	<p>Question 3</p> <p><b>Listen to the number sequence.</b></p> <p><b>Zero, three, six, nine...</b></p> <p><b>Write the next two numbers in the sequence.</b></p>
<b>Question 4</b>	<p>Look at the next page and find question 4.</p> <p>Question 4</p> <p><b>Three numbers add up to fifty-seven.</b></p> <p><b>The first number is forty.</b></p> <p><b>The second number is seven.</b></p> <p><b>What is the third number?</b></p> <p>Write your answer in the box.</p>
<b>Question 5</b>	<p>Question 5</p> <p><b>Write down <u>all</u> the odd numbers between twenty and thirty.</b></p> <p>Write them in the box.</p>
<b>What to say after questions 1 to 5</b>	<p><b>Introducing the written questions</b></p> <ul style="list-style-type: none"> <li>• Tell the pupils that for the rest of the test they will need to read the questions in the booklet themselves (teachers may need to amend this instruction if they are supporting some pupils by reading).</li> <li>• Tell the pupils that they must work on their own and they must not call out the answers.</li> <li>• Tell the pupils, if they want to change an answer, they should put a line through the response they don't want to be marked. Additionally, where necessary, you can show the pupils how to change their answers if they think they have made a mistake.</li> <li>• Explain to the pupils that, if they need to change a diagram or graph, they must ensure they rub out their answer completely before writing a new answer.</li> <li>• Where necessary, you can show the pupils how to draw a tick, circle or cross to indicate the answer.</li> <li>• Explain that in some places there will be an answer box. In other places, they may need to write their answer on a diagram or picture.</li> <li>• Explain that they can use the white spaces on the page to do any working out, if they need to.</li> <li>• Tell the pupils that they have approximately 30 minutes to complete the rest of the paper.</li> <li>• Tell the pupils to turn to page 6 and start working.</li> </ul>
<b>What to do at the end of the test</b>	<ul style="list-style-type: none"> <li>• Follow your school's procedure for collecting and storing the pupils' test scripts.</li> <li>• If any pupil needs a transcript, complete it with the pupil at the end of the test, under test conditions. Particular care should be taken to ensure accurate transcriptions are made and pupil's answers are not corrected or amended.</li> </ul>
<b>Marking the tests</b>	<ul style="list-style-type: none"> <li>• Use the key stage 1 test mark schemes to mark the test, following both the general guidance and any specific guidance for each question.</li> </ul>

## Optional pupil script for the aural questions

### 2016 Key stage 1 mathematics test Paper 2: reasoning

This is an optional script.

Some pupils may need extra visual support to access the first 5 aural questions of the key stage 1 mathematics reasoning test. The class teacher can provide this optional script to the pupil(s) in addition to their test booklet, if they consider it necessary.

Pupils should use the script alongside their test booklet when listening to the aural questions read by the teacher.

<b>Who is the script for?</b>	<p>The 'optional pupil script' may be used with any pupil who would find it difficult to access and respond to the aural questions and the visual prompts in the test booklet.</p> <p>Before administering the test with the 'optional pupil script', you should consider:</p> <ul style="list-style-type: none"><li>• Does the pupil have any needs where providing the 'optional pupil script' alongside the test would improve their access to the aural questions?</li><li>• You should only use this script with pupils where you are confident that the use of the additional script will not confuse the pupils.</li></ul>
<b>Assistance</b>	<ul style="list-style-type: none"><li>• You must adhere to the administration guidelines in the test administration booklet when administering the test.</li><li>• Pupils using the optional pupil script will need support so that they can manage the script, the test booklet and listen to the teacher appropriately.</li></ul>
<b>Before the test begins</b>	<ul style="list-style-type: none"><li>• Make a note of pupils who will have access to the 'optional pupil script' for aural questions.</li><li>• Make copies of the 'optional pupil script' on the next page, as required.</li><li>• Provide a copy of the test booklet and the additional 'optional pupil script' to the designated pupils.</li><li>• Tell the pupils that they should use the script to help them follow the questions as you read them.</li><li>• Refer to the teacher aural script to administer the aural section of the test.</li></ul>
<b>What to say at the start of the aural questions</b>	<ul style="list-style-type: none"><li>• Follow the administration guidance provided in this document.</li><li>• Tell the pupils to write their name on their optional script as well as their test booklet.</li><li>• Remind pupils who have the optional script that they should follow each question as you read it aloud.</li><li>• Explain to pupils that they should record their answers in their test booklet and not on the optional script.</li></ul>
<b>After the aural questions have been administered</b>	<ul style="list-style-type: none"><li>• After the last aural question has been read aloud, collect the 'optional pupil scripts'.</li></ul>
<b>Marking the aural questions</b>	<p>Use the key stage 1 test mark schemes to mark the tests, following both the general guidance and any specific guidance for each question. Answers given in the test booklet should take precedence. However if a pupil has written their answer on the optional script and not in the test booklet, teachers should mark accordingly as long as the pupil's answer is not contradicted elsewhere.</p>

2016 key stage 1 mathematics test Paper 2: reasoning  
Optional pupil script for the aural questions

You may photocopy the optional pupil script for each pupil who is using it during the administration of the aural questions (1 to 5) of Paper 2. Please refer to the guidance above before using it.

First name	
Middle name	
Last name	

Practice question	Look at the domino. How many dots does the domino have altogether?
Question 1	Circle the correct number of tens and ones to make 63.
Question 2	There are 11 girls and 12 boys in a class. How many children are there in total?
Question 3	0, 3, 6, 9... Write the next two numbers in the sequence.
Question 4	Three numbers add up to 57. The first number is 40. The second number is 7. What is the third number?
Question 5	Write down <b>all</b> the odd numbers between 20 and 30.

2016 key stage 1 mathematics: Administering the mathematics test Paper 2: reasoning  
Print version product code: STA/16/7507/PKp ISBN: 978-1-78644-096-9  
Electronic version product code: STA/16/7507/PKe ISBN: 978-1-78644-097-6

© Crown copyright and Crown information 2016

**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.

Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

Sourced from SATs-Papers.co.uk



Standards  
& Testing  
Agency

**OGL**

<https://www.SATs-Papers.co.uk>