

National Numeracy Tests

REASONING

9ER15TS

**The script for the
reasoning test**



128994



Llywodraeth Cymru
Welsh Government

Information for administrators

This booklet provides you with the script you read to learners when presenting the stimulus materials immediately prior to the National Numeracy Test (Reasoning). Note that the script and the accompanying slide presentation should **not** be used for learners using the modified large print or Braille modified test materials. The script and stimulus materials for these learners are included in the *Notes for teachers* that accompany the modified tests.

The stimulus materials are a crucial element of the test as they enable learners to engage with the context of the first set of questions, and also reduce both reading demand and test anxiety.

It is **essential** therefore that you prepare in advance for the test by going through the script in detail, in conjunction with the slide presentation (on the computer disk). You **must** make sure that you understand the presentation and can present the information with confidence. If learners do not understand, they may be unable to engage with the test questions.

Before administering the presentation

Detailed information on administering the presentation is provided in the *Test administration guidance* that accompanies the test and in the *National Reading and Numeracy Tests – Test administration handbook 2015* on the Learning Wales website learning.wales.gov.uk

Immediately before showing the presentation to learners, check that:

- everyone can see and hear, and is focused on what you are presenting
- access arrangements have been made by the school for any learner requiring them
- the technology works.

Administering the presentation

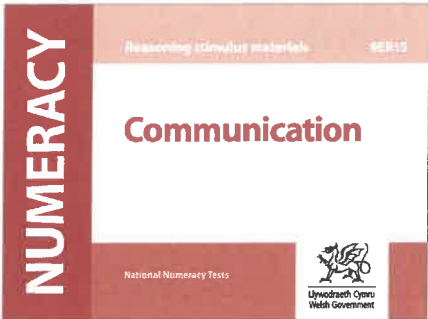


School trials of the tests clearly show the crucial importance of the presenter in ensuring that learners engage with, and are enthusiastic about, the contexts. Your role therefore is of great significance to your learners, so please:

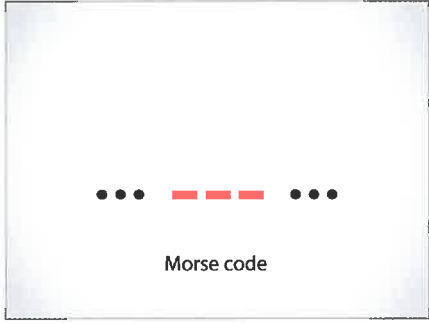

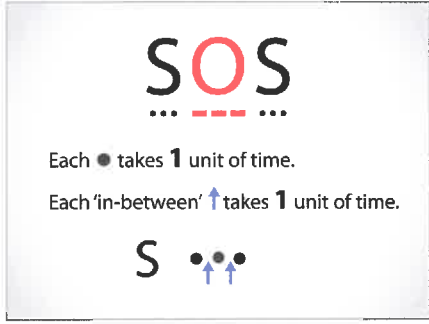
- make it interesting! To achieve the engagement and interest of learners, you, as presenter, need to be seen as confident and enjoying the materials. Use intonation and present with enthusiasm. You can (as appropriate for the age group) act out parts, use different voices or use any appropriate methodology to ensure that learners understand the contexts
- ask questions to engage learners. For example, if the context were about the rules of rugby, you could start by asking them who likes rugby and who knows anything about the rules. Get them involved in the context, wanting to know more
- make sure you include all the elements within the script – they are there for a good reason
- check understanding (both visually and, if necessary, by asking learners) and then expand if appropriate. However, if you do expand, you must not at any time extend discussion or commentary about the numerical content beyond that provided in the presentation, as this could help learners with the test questions. Within the script, you may be advised about issues you should not discuss (all such information is given in italics – this clearly should not be read out loud).

Learners must not be given any help that could influence their test performance.

Presentation to be shown to learners before doing question 1

The text in the right-hand boxes (but not italics) should be read to learners. You can use your own words, or provide additional explanation of contexts, if necessary. However, help should not be given with the numeracy that is to be assessed.

Slide 1		<p><i>(Keep this slide on the screen until you are ready to start the presentation.)</i></p>
Slide 2		<p>Communication is really important in our lives – we use phones, texts, e-mail and social media to keep in touch with our friends, but how did people communicate over long distances before phones and computers were invented?</p>
Slide 3		<p>Does anyone know what this photograph is showing? The person is sending a message through telegraph wires using something called Morse code.</p> <p>In Morse code, each letter has a different code, so the person sending the message taps this button (<i>point</i>) and sends a code for each letter. Someone at the other end of the telegraph wires, which could be many miles away, receives the code and changes it back into text. And the first ever Morse code message to be sent across the sea was in Wales in 1897!</p> <p>Using Morse code seems really slow to us now, but 100 years ago it was one of the only ways of communicating. And because it was used all over the world, countries agreed an international Morse code.</p>

<p>Slide 4</p>	 <p>Morse code</p>	<p>One of the most famous international Morse code messages is based on the English alphabet and goes like this: dot, dot, dot; dash, dash, dash; dot, dot, dot. Does anyone know what that code stands for? Yes, it's the code for S.O.S. which is used in emergencies – S.O.S. means that help is needed urgently.</p>
<p>Slide 5</p>	 <p>Morse code</p>	<p>So, the Morse code for S.O.S. is dot, dot, dot for the letter S, dash, dash, dash for the letter O and dot, dot, dot again for the letter S.</p> <p>The person receiving the code hears the dots and dashes as signals. They need to be sure which parts of the code they hear are dots and which are dashes – so the person sending the code must make sure that each dot sounds exactly the same and that each dash sounds exactly the same. Let's look at how they do this for dots.</p>
<p>Slide 6</p>	 <p>Each ● takes 1 unit of time. Each 'in-between' ↑ takes 1 unit of time.</p> <p>S ●●●</p>	<p>Each dot must last for exactly the same amount of time – we call this one unit of time for each dot. But there needs to be a pause between each of the dots. We can call these the 'in-betweens' – and each one of these also takes one unit of time.</p> <p><i>(Skilled operators tap codes extremely quickly, but the unit of time varies according to the operator. This explains why we work in units of time rather than seconds. You may wish to explain this to learners, but it is not essential to the task.)</i></p> <p>So, it takes five units of time to send the letter S: one for each dot and one for each in-between (point to the code).</p>

Slide 7

Each **-** takes **3** units of time.
Each 'in-between' **↑** takes **1** unit of time.

Dashes take longer to send than dots.

Each dash takes three units of time, but again you have to allow for the in-betweens which each take one unit of time. So how long does it take to send the letter O, dash, dash, dash? (*11 units of time; 3×3 for the dashes + 2 for the in-betweens.*)

Good. Morse code makes use of the English alphabet and it uses only dots and dashes. Let's look at the code for some other letters.

Slide 8

Each **•** takes **1** unit of time.
Each **-** takes **3** units of time.
Each 'in-between' takes **1** unit of time.

The code for G is dash, dash, dot and the code for K is dash, dot, dash.

How many units of time does it take to send G? (*2×3 for the dashes + 1 for the dot, + 1 for each of the two in-betweens, total 9 units of time.*)

How many units of time does it take to send K? (*Same as G because they both have two dashes and one dot.*)

Now you are going to answer some questions about the international Morse code. All the information you need is in your booklet.

When you have finished there are other questions to answer. Remember that for some of the questions you will need to use your calculator, and it is very important to show your working so that someone else can understand what you are doing and why.

You have 30 minutes.

© Crown copyright 2015