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Consultation Document

National Literacy and Numeracy Framework and Tests

Date of issue: **11 June 2012**
Action required: Responses by **12 October 2012**

National Literacy and Numeracy Framework and Tests

Overview
The recently published National Literacy Programme and the soon to be published National Numeracy Programme set out the actions the Welsh Government intends to implement to improve literacy and numeracy standards in Wales. The plans for a statutory national framework and for a system of national testing are integral to both programmes.

How to respond
Response forms should be e-mailed to curriculumdivision@wales.gsi.gov.uk (please enter 'LNF and tests' in the subject matter box) or posted to Steven Nicholas at the address below by **12 October 2012**.

Further information and related documents
Large print, Braille and alternate language versions of this document are available on request.

The consultation documents can be accessed from the Welsh Government's website at www.wales.gov.uk/consultations

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Data protection

How the views and information you give us will be used

Any response you send us will be seen in full by Welsh Government staff dealing with the issues which this consultation is about. It may also be seen by other Welsh Government staff to help them plan future consultations.

The Welsh Government intends to publish a summary of the responses to this document. We may also publish responses in full. Normally, the name and address (or part of the address) of the person or organisation who sent the response are published with the response. This helps to show that the consultation was carried out properly. If you do not want your name or address published, please tell us this in writing when you send your response. We will then blank them out.

Names or addresses we blank out might still get published later, though we do not think this would happen very often. The Freedom of Information Act 2000 and the Environmental Information Regulations 2004 allow the public to ask to see information held by many public bodies, including the Welsh Government. This includes information which has not been published. However, the law also allows us to withhold information in some circumstances. If anyone asks to see information we have withheld, we will have to decide whether to release it or not. If someone has asked for their name and address not to be published, that is an important fact we would take into account. However, there might sometimes be important reasons why we would have to reveal someone's name and address, even though they have asked for them not to be published. We would get in touch with the person and ask their views before we finally decided to reveal the information.

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Introduction

The recently published National Literacy Programme and the soon to be published National Numeracy Programme set out the actions the Welsh Government intends to implement to improve literacy and numeracy standards in Wales. The plans for a statutory national framework and for a system of national testing are integral to both programmes.

This consultation provides stakeholders and members of the public the opportunity to comment and seeks views on the Welsh Government's proposals for the following:

- a statutory National Literacy and Numeracy Framework

- National Reading and Numeracy Tests.

It comprises the consultation document (contents as set out below) and the Literacy and Numeracy Framework (LNF) itself. In order to respond to this consultation, stakeholders and members of the public will need:

- the consultation document

- the LNF

- the consultation response form.

This consultation document has two sections.

- **Section 1** provides an introduction to the National Literacy and Numeracy Framework (LNF).

- **Section 2** provides an introduction to National Reading and Numeracy Testing.

There are three appendices at the end of this document.

- **Appendix 1** provides a list of the consultation questions we would like you to consider as part of the consultation process.

- **Appendix 2** provides a glossary of literacy terms.

- **Appendix 3** provides a glossary of numeracy terms.

The **LNF** is broken down into two components – one for literacy and one for numeracy. The LNF also includes two further components for learners with additional learning needs. More information on the different components is given in the relevant sections of this document.

Responses to this consultation on the National Literacy and Numeracy Framework and Testing can be made by completing the consultation response form. All responses need to be received by 12 October 2012.

Section 1: National Literacy and Numeracy Framework

The Minister for Education and Skills has made raising standards of literacy and numeracy in schools a priority. In his keynote address 'Raising Schools Standards' on 29 June 2011, to the Institute of Welsh Affairs, he announced the intention to introduce a new National Literacy and Numeracy Framework for all learners aged 5 to 14.

Purpose and aims of the Literacy and Numeracy Framework (LNF)

There has been mounting evidence that the literacy and numeracy skills of young people in Wales have not been good enough and this was highlighted in Estyn's *Annual Report* in 2011. Literacy and numeracy skills are absolutely essential in order for young people to reach their potential whether they are planning to enter further or higher education or the employment market.

The LNF has been developed to help achieve our aims that the children of Wales are able to develop excellent literacy and numeracy skills during their time in school. The current national curriculum introduced from 2008 seeks to weave skills development throughout the curriculum and is, therefore, underpinned by the non-statutory *Skills framework for 3 to 19-year-olds in Wales* (Welsh Assembly Government, 2008) which covers developing thinking, communication, ICT and number. There is strong evidence that the skills framework has not succeeded in bringing about skills development across the curriculum, with too few schools using the skills framework as a basis for planning the curriculum. Estyn's report, *Evaluation of the impact of the non-statutory skills framework at Key Stage 2* in July 2011 and the similar report for Key Stage 3 in May 2012 suggest that one reason for this has been the non-statutory nature of the skills framework. The LNF will replace the communication and number element of the non-statutory skills framework and will be a **statutory curriculum requirement**.

Practitioners have also raised concerns over the approach to progression and the development of skills over time that is set out in the non-statutory skills framework, in particular that there is a lack of clarity. The LNF has been developed as a curriculum planning tool for schools that will provide a continuum of development, clearly setting out annual expected outcomes in literacy and numeracy. While we acknowledge that skills development for younger learners, in particular, may be more erratic, effective cross-curriculum planning for skills and a framework for continued development is important for all learners.

The **key aims** of the LNF are to:

- help teachers of **all** subjects to identify and provide opportunities for learners to apply literacy and numeracy across the curriculum, and is broken down by year group

- describe, with precision, the **annual national expectations for literacy and numeracy** for learners 5–14, and progression indicators for learners with additional learning needs

- help determine **learner progress** in literacy and numeracy and provide annual reports to parents/carers based on teacher assessment so that teachers, learners and parents/carers are all clear how learners are progressing and what are the next steps.

Development and implementation of the LNF

The LNF is based on research into effective teaching, assessment, recording and reporting practice, and the success of similar international systems. It has been developed in partnership with Association of Directors of Education in Wales (ADEW) advisory panel consisting of local authority literacy and numeracy advisers.

The LNF is first and foremost a curriculum planning tool that supports all teachers to embed literacy and numeracy in their teaching of the curriculum. Our aim is to support all teachers to see themselves as having an important role in developing the literacy and numeracy skills of their learners. All schools currently have curriculum planning arrangements and these will need to be adapted to support cross-curricular planning using the LNF. In addition, guidance will be available to help to support teachers in cross-curricular planning.

Key features of the LNF

The LNF has a number of key features.

- It sets out the skills we expect learners to develop throughout their time in school, from ages 5 to 14, and is broken down into year groups.

- It is split into components for literacy and numeracy, which are in turn split into strands.

- The literacy strands are: reading for information, writing for information and oracy.

- The numeracy strands are: developing numerical reasoning, using number skills, using measuring skills and using data skills.

- Each strand is further split into elements, with literacy also broken down into aspects.

- The literacy component is available in both English and Welsh. The expectations in both English and Welsh are similar, with a few distinctive elements in the Welsh literacy component, reflecting the unique requirements of the Welsh language.

- In addition to being a curriculum planning requirement, the LNF is also to be used by teachers for formative assessment.

- It will be used to inform teachers' assessment of learners' literacy and numeracy skills and will be reported annually to parents/carers.

Following consultation the final version of the LNF will be available online from January 2013 for schools to use on a non-statutory basis and on a statutory basis from September 2013.

It will be fully supported by a comprehensive range of online guidance and training materials and we will assess the need for further training.

About the LNF

What is the LNF's relationship to the whole curriculum?
The LNF is a curriculum planning tool, which builds on the current good practice that exists in many schools. It aims to help bring about coherent approaches to developing literacy and numeracy across the curriculum, informing teachers of all subjects how they can provide opportunities for learners to apply literacy and numeracy across the curriculum. Therefore, in both primary and secondary schools planning for developing literacy and numeracy skills needs to be truly cross-curricular rather than focused on English, Welsh and mathematics lessons.

The national curriculum implemented from 2008 introduced a skills-based approach to the curriculum designed to ensure that skills were developed across the curriculum. It is underpinned by the non-statutory skills framework which covers thinking, communication, ICT and number skills. As set out earlier in this document, there is strong evidence that the skills framework has not been as successful in achieving these aims as intended. The LNF builds on the expectations set out in the skills framework, but it will

be a statutory curricular requirement, providing a better basis on which to plan the whole curriculum. It will also provide greater clarity for teachers to assess and track skills progression. The LNF will replace the communication and number components of the non-statutory skills framework. The thinking and ICT skills components remain in place to guide schools on these important skills and these will be looked at separately for future guidance.

In developing the LNF we have had to consider carefully what the appropriate expectations at each age and key stage should be. During this process questions have been raised about the current curriculum requirements, particularly in respect of English, Welsh and mathematics, and whether the current attainment levels specified in the subject Orders are sufficiently rigorous or stretching. The expectations set out in the LNF seek to raise the bar in some instances. We have taken the opportunity to realign expectations to ensure we have a rigorous approach to raising standards and ensuring our learners reach their potential. This means that LNF expectations for end of Key Stage 2 are closer to Level 5 and expectations at end of Key Stage 3 are closer to Level 6. In the light of this, we are considering current assessment arrangements and a broader look at the curriculum to ensure there is alignment.

What will the LNF do and how is it organised?
The LNF describes in detail the skills that we expect children and young people to acquire and master from ages 5 to 14. It has two components – literacy and numeracy. These are divided into the following strands.

Within **literacy** we expect children and young people to become accomplished in:

- reading for information

- writing for information

- oracy.

Within **numeracy** we expect children and young people to become accomplished in:

- developing numerical reasoning

- using number skills

- using measuring skills

- using data skills.

The LNF focuses on the learners' **acquisition of** and ability to **apply** the skills and concepts they have learned to complete realistic tasks appropriate for their stage of development.

Teachers will be able to use the LNF to:

- develop curriculum content to ensure that all learners have opportunities to develop and refine the skills set out in the LNF

- integrate literacy and numeracy into their teaching – whatever the subject matter

- inform discussions with parents/carers, learners, and other teachers about learner performance

- help learners with their own self-assessment activities and planning for learning

- monitor, assess, and report on individual learner performance

- identify learners who may benefit from intervention or who are working beyond age-related expectations.

Learners and parents/carers will benefit from the clearer understanding of literacy and numeracy skills and the better picture of learning needs and progression that the LNF will provide.

Does the LNF include learners with additional learning needs (ALN)?

We intend the LNF to be inclusive of all learners. We have, therefore, designed a set of expectations that are inclusive of all learners and will ensure that those with ALN are included in each element. Progression is identified from early precursor skills which are described in detail in the *Routes for Learning* routemap (available at www.wales.gov.uk/topics/educationandskills/schoolshome/curriculuminwales/additionaleducationalneeds/routeslearning/?lang=en). The framework sets out how learners' skills are refined and augmented as they progress towards the expected standards for Reception. Some skill elements will not emerge until a later stage of the LNF. In such cases, the relevant cells in the LNF are shaded grey to show this.

Teachers, learners, parents and carers will use these progression statements in similar ways to those described above. The LNF also describes a continuum of development and learners may progress further or faster in some aspects than in others, with achievements spanning several years. This may apply particularly to learners with ALN, especially where a disability might prevent the achievement of specific items.

For more able and talented learners working at higher levels, schools should provide greater challenge. The level of demand may be increased by extending the breadth, depth and complexity of tasks.

How will Welsh-medium schools use the LNF?

There are separate English and Welsh versions of the literacy component of the LNF, recognising the distinctive nature of each language. However, the English and Welsh versions of the literacy component of the LNF are very similar and this will help schools in their planning.

In Welsh-medium primary schools we recognise that language and literacy skills acquisition in the early years may follow a different pattern with year-on-year learner progress affected by the child's home language and the use of immersion methodology to develop children's Welsh language skills. As a consequence we propose that in reception to Year 3 inclusive, Welsh-medium schools should only be required to use the Welsh literacy component of the LNF (alongside numeracy). From Year 4 onwards we expect Welsh-medium schools to use both the English and Welsh components. Schools can of course also use the English component in the Reception year and Years 1–3 if they wish. We would welcome views on this proposal and a specific question on this is contained in the consultation response form.

The LNF will be used by Welsh-medium schools in curriculum planning, making sure that all teachers incorporate literacy and numeracy skills into their teaching as already described. The LNF will inform teacher assessment and these assessments will be formative. This means that teachers, as part of providing a narrative assessment and reporting to parents/carers will be able to put learners' language development into context, particularly where the learner's home language is not Welsh.

How does LNF support progression for all learners?

Providing year-on-year expectations provides clarity to support progression. It provides teachers with a clear understanding of what children are expected to have achieved and what they will go on to learn about in future years. However, we also recognise that not all children progress in the same way and in particular children's development in the early years can follow different trajectories. Nevertheless, the year-by-year nature of the LNF allows teachers to ensure that they are incorporating the appropriate skills into their delivery of the curriculum and its content.

The LNF also allows teachers to take account of the needs of their more able learners. It enables teachers to plan for and support skill development where learners are making faster progress than might typically be expected and where learners would benefit from further stretch or challenge.

Setting out year-on-year expectations is important for all learners in order to give clarity about a learner's progress and to ensure that the critical building blocks for skill development are in place for all learners.

How does the LNF support assessment?

The LNF is primarily a curriculum planning tool. It is also an assessment tool in that it informs teacher assessment. Assessment against the LNF is intended to be used formatively by schools and individual teachers to support learner progress, classroom and curriculum planning. Assessment will be narrative, allowing for flexibility in learners' progress – it is not intended to be a 'best-fit' approach. Teachers will use the LNF to:

• assess individual progress to form the basis for informed discussion with learners, parents/carers and between teachers about learners' current strengths and areas for development

• assess group progress to inform curriculum and school development planning.

Progression through the LNF will demonstrate how learners are performing against the expectations for literacy and numeracy at the end of each academic year.

There will be no national data collection in relation to assessments made against the LNF. Teachers will not be expected, nor would it be appropriate, to use the LNF to arrive at a single statement about whether a learner is working at/above/below the expected level for their age. Instead, the LNF and assessment against it should be used to help describe a learner's progress, areas of strength and next steps for development.

In both primary and secondary schools planning for assessment needs to be truly cross-curricular rather than being undertaken through English, Welsh and mathematics alone. Schools will need to be satisfied that whole-school systems are in place to support the cross-curricular assessment of literacy and numeracy skills.

Schools will be required to report on individual progress, strengths and areas for development in literacy and numeracy to parents/carers on an annual basis and to report on the overall progress and standards across the school on an annual basis. It is our expectation that these reports will be narrative in their format.

The assessments made against the LNF will generate valuable information about patterns of performance, strengths and areas of concern. This will be useful for teachers, parents/carers, governors and those who support school improvement at a local or regional level.

How does the LNF fit with the national tests?

In addition to the LNF and the formative, narrative assessments made against it we are introducing national reading and numeracy tests.

These will provide summative data, collected and analysed nationally and used as part of the national accountability model. Test data will give teachers clear indicators of skill development and progress, and will make an important contribution to the evidence teachers use to make annual judgments about learners' skill acquisition.

Assessment against the LNF and the outcomes of tests will give different perspectives on learner's progress. This reflects the fact that they are assessing slightly different aspects of the same skills and that one is a snapshot, summative view while the other will draw on a far broader range of evidence.

Where test results seem to contradict outcomes against the LNF or in other assessments the most important thing will be for teachers to consider the reasons for any difference and address them appropriately.

Overview of the literacy component of the LNF

Literacy is the use of language skills in daily activities at school, at home, at work, and in the community. It involves both using literacy skills and knowing how to use English and Welsh.

Literacy describes a set of skills, including speaking, listening, reading and writing, which enable us to make sense of the world around us. Literacy is not narrowly about the mechanics of being able to decode the words on a page or write a grammatically correct sentence, although these are essential skills in their own right. It is about the skills needed to understand written and spoken language, to interpret what has been written or said, and draw inferences from the evidence that surrounds us. It is also about being able to communicate in our turn – fluently, cogently and persuasively.

Literacy is based on reading, writing, and oral language development across all subject areas. The literacy component is designed to assess learners' abilities to use the reading, writing and oracy skills they have learned to address realistic and age-appropriate tasks and problems. Literacy is not the same as English or Welsh; as a consequence the LNF expectations do not address all aspects of the English and Welsh subject Orders and need to be used in combination with other forms of assessment to develop a comprehensive picture of learner achievement.

Curriculum connection
In schools, responsibility for developing and assessing literacy skills rests with all teachers and not just the language specialist(s). The literacy component of the LNF will help teachers in primary, secondary and special schools address the skills requirements of the English/Welsh programmes of study. All learners are expected to apply and extend their literacy skills across the curriculum.

Progression in literacy
The aim of the literacy expectations is to encourage learners to develop and demonstrate their skills in oracy (speaking and listening), reading and writing for different purposes. The expectations are essentially concerned with developing and recognising learners' ability to select and apply literacy skills in ways that are appropriate to each context.

The expectations are designed to recognise learners' progression in terms of both underpinning techniques and of the skills of application.

Each age-related expectation builds on the previous year's expectation to ensure year-on-year progression for each element. It is important to note that, where the wording of an expectation is identical to the previous year's expectation the progression is inherent in another aspect of the expectations, for example the strategies and challenges will be more demanding at each stage.

Learners with ALN may be working below age-related expectations for most, or all, of their school career. Therefore below reception, statements reflect incremental progression but are not related to age.

Strands of literacy
The LNF focuses on three strands of literacy, with distinct elements within those strands. These are set out below.

Strand 1 – Reading for information
The performance expectations for reading describe learner achievement in reading for information.

Through reading, people access the ideas, information, and experiences that help them to understand themselves, their world and to learn and work effectively. People also read for entertainment.

While reading skills are a primary focus of the national curriculum subject Orders for English and Welsh, learners must extend and apply these skills across all curriculum areas. The literacy component of the LNF help teachers plan and assess the extent to which learners are able to apply the skills and strategies in purposeful, age-appropriate reading tasks in a whole-school cross-curricular approach.

The reading for information strand focuses on three elements.

- Reading strategies
  - Using word skills and comprehension strategies.
  - Accessing information to ascertain meaning.
  - Evidence from observation and listening to learners read.

- Comprehension, and response and analysis
  - Identifying main ideas, events and supporting details.
  - Predicting, making inferences, describing relationships.
  - Making connections within/across a range of texts/themes and from personal experience.
  - Offering opinions, critically analysing the author's message and techniques.

Strand 2 – Writing for information

People write to record and explore their thoughts, feelings, and opinions; to communicate with others; and to express their ideas through the power and beauty of language.

Learner success in and out of school is strongly related to their ability to communicate ideas. Writing for information includes work that is intended to present information (e.g. articles or reports), outline procedures (e.g. instructions) and persuade others (e.g. editorials).

The writing for information strand focuses on five elements.

- **Meaning**
  - Planning and adapting writing style to suit the audience and purpose.
  - Improving writing through independent review and redrafting.

- **Form**
  - Attention to the 'rules' of the particular form of writing (e.g. news stories, instructions).
  - Organisation of ideas and information.

- **ICT**
  - Using increasingly complex ICT programmes to improve the quality of presentations.

- **Language**
  - Using technical terms, language and expression consistent with the subject and content.

- **Presentation, spelling, punctuation, grammar and handwriting**
  - Legibility, spelling, punctuation, grammar and sentence structure.

The specific criterion for each aspect varies depending on the type of writing and the age level.

Strand 3 – Oracy

People communicate their needs, feelings, thoughts; retell experiences with others; and express their ideas through the power and beauty of the spoken word. People refer to their intentions by asking questions, voicing/expressing opinions and making choices through a variety of media, and by building on previous experiences. Listening and responding appropriately to others and a range of other media is an essential component in the development and use of language.

The oracy strand focuses on three elements.

- **Speaking**
  - Communicating ideas and information to a wide range of audiences and a variety of situations.

- **Listening**
  - Listening and responding to the viewpoints and ideas of others.

- **Collaboration and discussion**
  - Contributing to discussions and presentations.

  - Discussing the viewpoints/ideas of others', and sharing personal ideas and opinions.

Overview of the numeracy component of the LNF

Numeracy refers to the application of mathematical understanding in daily activities at school, at home, at work, and in the community. There is more to numeracy than teaching the rules and procedures of mathematics. However, it is imperative that the fundamental mathematical techniques are taught to a standard that allows learners to be numerate.

Numeracy describes the set of skills needed to tackle real-world problems in a variety of situations by applying numerical reasoning in order to plan how to solve the problem, and then carrying out the mathematical procedures to find the solution.

Numeracy is different to the mathematics subject in that it is the application of the skills learned in mathematics in a cross-curricular, real-world way, and not purely about the skills themselves. The numeracy component of the LNF reflects this, especially in Key Stage 3, where it is not expected that the procedure skills need to become much more advanced, but the context and problem will become more difficult and so the reasoning skills (e.g. knowing how to solve the problem) are expected to develop

Curriculum connection

In schools, responsibility for developing and evaluating numeracy skills is that of **all** teachers. Depending on the tasks developed or selected, using the numeracy component will help teachers in primary, secondary and special schools address a wide range of outcomes from the mathematics programmes of study.

Learners in all schools are expected to apply and extend their numeracy skills across all subject areas (e.g. map reading/making in geography, tracking progress in physical education, using perspective in visual arts, etc.). The numeracy component of the LNF has therefore also been developed to apply in all curriculum areas.

Numeracy tasks and problems typically draw on concepts and skills from across the curriculum, and can be grouped according to purpose or context, e.g. when managing finances.

Progression in numeracy

Progression through the stages is demonstrated by increasing ability to independently solve problems and carry out the relevant mathematical procedures.

It is important to note that, where the wording of an expectation is identical at different ages, the progression is inherent in another aspect of the expectations or in the greater complexity of the problem. This is particularly the case in Key Stage 3, where many of the numerical procedures are known, but the challenge is in improving numerical reasoning through increasingly complex tasks.

Strands of numeracy

The LNF focuses on four strands of numeracy, with distinct elements within those strands. The expectations in each of the strands help teachers to get precision in the expected progress of these skills in an age-appropriate context. The supporting exemplification material will demonstrate how these skills can be seen in tasks from across the curriculum. The strands are set out below.

Strand 1 – Developing numerical reasoning

Reasoning skills are important for numeracy as they describe the skills involved in recognising what procedures are needed to solve a real-world problem.

Through reasoning, people are able to recognise how to use numbers to tackle a real-life situation, and planning a strategy to solve it. In a variety of situations, the ability to reason using numbers

enables people to access and understand information such as sports statistics, reading maps, building an object to scale, managing money and others. Without this skill, people will not be able to use their mathematics ability in the real world.

The elements underneath this strand refer to the skills needed to identify what processes are needed to solve a real-world problem, how to express that approach in their workings, and how to draw conclusions by reviewing their own processes and answers for reasonableness. The developing numerical reasoning strand focuses on three elements.

- Identify processes and connections.

- Represent and communicate.

- Review.

Once it is known how to tackle a problem, there is a separate set of skills in carrying out the procedures to get the correct answer. These procedures can further be broken down into using number skills, measuring, and handling data, which is reflected in the structure of the numeracy component.

Strand 2 – Using number skills

Number skills describe the fundamental skills needed to be comfortable with using and manipulating numbers when carrying out procedures. It is here that a learner will learn how to count, that numbers come in a certain order, that non-whole numbers can be represented in different ways, and how to use checking strategies to ensure that the procedure has been carried out correctly.

Also reflected in this strand is the specific context of money and the building blocks of financial education. The using number skills strand focuses on five elements.

- Use number facts and relationships.

- Fractions, decimals, percentages and ratio.

- Calculate using mental and written methods.

- Estimate and check.

- Money.

Strand 3 – Using measuring skills

Measuring skills mainly reflect the importance of knowing what measurements to use in which context and what standard units to use, as well as giving precision on how and when these concepts can be introduced. Later on, the concepts of mixing units to give compound measures is introduced, e.g. speed as metres per second. The using measurement skills strand focuses on five elements.

• Length, weight (mass) and capacity.

• Time.

• Temperature.

• Area and volume.

• Angle.

Strand 4 – Using data skills

Representing the results of tackling the problem or question involves handling data, and can be done in several ways, such as through a single answer, a table or a chart of some kind. Applying the correct, or best, data-handling procedure is a procedural skill in itself, and this strand of the component helps to show what skills teachers can expect to see in learners of a given year group who are operating at their expected level.

More advanced data skills also allow the learner to draw conclusions and hypotheses from the results. The using data skills strand focuses on three elements.

• Collect and record data.

• Present and analyse data.

• Interpret results.

Section 2: National Reading and Numeracy Testing

In his keynote address 'Raising School Standards' delivered on 29 June 2011 to the Institute of Welsh Affairs, the Minister for Education and Skills also announced the intention to introduce national tests of reading and numeracy for all learners in year groups 2 to 9.

Purpose and aims of the reading and numeracy tests

Currently there is no consistent pattern in the use of reading and numeracy tests across Wales.

The intention is that it will be a statutory requirement for all schools in Wales to use the Welsh Government's bespoke reading and numeracy tests on an annual basis. All learners in Years 2 to 9, or aged 7 to 14, in maintained schools in Wales will be required to take the tests. The tests will be available in both English and Welsh.

Quality assessment informs learning; it does not just measure it. It can also form the basis of internal evaluation, inform learners and parents/carers, and perform functions related to external accountability.

The Minister for Education and Skills has set out a clear expectation that some of the data generated from the national tests will be used as part of the accountability framework and that all data should be used to support effective planning, self-evaluation and learner tracking.

Data used to support accountability and self-evaluation must be reliable, valid and consistent; summative assessment data is best suited to this purpose.

However, in order to make the national tests as beneficial to informing as well as measuring learning and to ease the implementation path of tests into schools, we recognise a need for both summative and formative elements.

The tests therefore will generate summative, highly reliable, comparable data needed to allow us to measure progress, compare and focus attention on performance. They will also include formative elements, generating data from which teachers can gain an accurate picture of where a learner is in terms of their skills and ability.

Development of the national tests

The test design is based on research into the use and content of current tests and evidence of what makes testing of reading and numeracy most informative and supportive of improvement.

Research conducted on behalf of the Welsh Government indicated that, while most schools use reading tests and many use some form of numeracy or mathematics testing, there is no consistency of approach across Wales.

As a result there is no single view of standards or progress and of the sharing of valuable data and information on learner ability. There is also no consistent basis on which the need for additional intervention and support can be identified and its impact assessed.

Our research also indicated that the available English- and Welsh-language reading tests were not directly comparable and that numeracy or mathematics tests focused mainly on assessment of process with little assessment of the underlying reasoning skills that can be a more effective measure of learners' true numeracy skills and potential.

These research findings were significant factors in the decision to commission bespoke reading and numeracy tests for use in Wales.

For further details of the research undertaken at the specific request of Welsh Government please visit www.wales.gov.uk/about/aboutresearch/social/latestresearch/childrenmathematical/?lang=en

Development of the tests
The National Foundation for Education and Research (NFER) has been awarded contracts for development of the reading and numeracy tests.

The tests are being developed around a number of design requirements intended to maximise usefulness, minimise burden and ensure as much flexibility in the administration arrangements as possible.

We want the tests to be a true reflection of children and young people's abilities in reading and numeracy, not a test of how well they cope under 'exam' conditions.

General features of the tests include the following.

- Designed for group administration – this might mean small group, class or year group depending on the age of the learners and local preference.

- A maximum of 60 minutes per test although there will be flexibility in administration to allow for the test to be delivered in shorter chunks for younger learners or those with additional needs.

- Test dates will not be set nationally; rather there will be a specified 'window' of around two weeks within which the tests must be administered.

- Flexibility in administration to allow for testing in smaller groups where appropriate, e.g. for younger learners.

- Reflective of the skills set out in the LNF.

Features specific to the reading tests include the following.

- A statutory main test focused on delivery of valid summative data using mainly closed and short response items; data from this test will be collected nationally.

- A suite of additional formative assessment materials available for local use at local discretion – these will use more open response questions; data will not be collected.

- Separate but comparable tests in English and Welsh, not translations.

- Each test will be valid for use with learners across two year groups.

Features specific to the numeracy tests include the following.

- Testing of both mathematical process and numeric reasoning, with separate scores produced for each.

- Each test will be valid for use with one year group.

- Test material that will change year-on-year and previously used test items will be made available for local use at schools' discretion.

- Testing of mathematical process will be introduced first, starting in May 2013.

- Test material for assessing numerical reasoning will be piloted in May 2013 for introduction in May 2014.

Development of the reading tests is progressing well with trialling taking place in June 2012 followed by standardisation in the autumn term 2012.

Development of the numeracy tests is just starting. Trialling of test items will take place in the autumn term 2012 with standardisation being undertaken as part of the first test round in summer 2013.

How will Welsh-medium schools use the tests?

The tests will be available in both English and Welsh. The reading tests will be separate but comparable tests; they will not be translations.

Learners following a Welsh language programme of study will take a reading test in Welsh only in Years 2 and 3 but in both English and Welsh from Year 4 onwards. Schools will have the option to use both tests in Year 3. Learners will take the numeracy test in either English or Welsh.

Do the tests include learners with additional learning needs (ALN)?

We intend the tests to be inclusive of all learners as far as is possible. We have, therefore, specified that the tests should include a range of questions to cover a broad range of abilities. Tests will be available in alternative formats to facilitate access for some learners and arrangements will be made where possible to meet learners' additional needs.

We accept that for some learners, especially those with complex or severe additional needs, it may not be appropriate for them to sit a test. Arrangements will be made to enable schools to identify those learners for whom sitting a test would be inappropriate.

How will the tests be administered and marked?

The tests will be administered and marked in schools with schools able to plan the tests to best suit their timetable and learners within specified guidelines.

Clear and concise guidance will be provided to ensure consistency of administration, balanced with clear indications of where flexibility can be applied to ensure that administration is straightforward and does not present too great a burden on learners or teachers.

Broadly speaking, summative assessments make greater use of closed questions. Diagnostic or formative assessment requires greater use of open questions. Closed questions are more straightforward to mark; they tend to have only one correct answer and are therefore less likely to be subjective, require moderation or be open to variation between teachers and schools.

The use of closed questions in the statutory part of the reading test will make marking quicker and easier. It will also mitigate against the need for a moderation exercise as there will be little or no scope for ambiguity over what is, or is not, a correct answer. This approach will also apply to the process section of the numeracy test.

The open response questions in the optional reading assessment material will be open to ambiguity as teacher discretion will be needed in the marking. However, as this data is for internal use only this will not have a negative impact. Likewise the reasoning section of the numeracy test will be open to a certain amount of ambiguity in teachers' interpretation of the mark scheme.

The exact detail of how this will be managed within the numeracy tests will be the subject of detailed discussion during their development.

In the autumn term of 2012, approaches and options for administration and marking will be 'trialled' with a cross section of teachers and schools in order to inform final arrangements. Similar considerations are being built into the development for the numeracy tests.

Will test data be collected?

Data from the statutory testing will be collected so that it can be used locally and nationally for accountability, self-evaluation and to measure progress.

There are three main ways in which the data might be used by Welsh Government.

- To supplement data already available to schools to support self-evaluation, e.g. by inclusion of school level analysis of the data in All Wales Core Data Sets.

- To measure progress on a national or regional basis and inform statistical analysis.

- To inform accountability, e.g. by use of the data as part of the school banding methodology.

In order to make the process as straightforward as possible and to provide as much analysis back to schools as quickly as possible, we propose that schools will upload raw scores from the tests via their standard Management Information Systems (MIS) to the DEWi online data collection tool.

DEWi will use the raw score and learner information from the MIS to calculate standardised scores and progress scores. These will be generated for import back into the school MIS.

Over time a selection of analyses and reports will also be generated by DEWi; these could include individual reports to facilitate reporting test results to parents/carers, school- and class-level analyses to support planning and self-evaluation.

Welsh Government will be able to draw down the data it needs from DEWi to inform creation of reports in the All Wales Core Data Sets and for accountability and statistical analysis so no additional data collection exercise will be necessary.

Appendix 1: List of consultation questions

Question 1 – Do you think the expectations for year-on-year assessment are pitched correctly? If not, please explain why and suggest alternatives.

Question 2 – Are the right skills emphasised? Do you think any have been missed that should be included?

Question 3 – Is the language used in the framework precise enough? If not can you give specific examples of changes needed.

Question 4 – Is it appropriate that Welsh-medium schools be required to also assess against the English framework from Year 4 onwards?

Question 5 – Teachers will be required to complete an assessment for every learner against the appropriate age-related statements in the framework. Would a template for optional use for recording and reporting those assessments be useful for teachers?

Question 6 – Should *Routes for Learning* become the statutory basis for assessment of learners with profound and multiple learning difficulties/complex needs?

Question 7 – Alongside the statutory reading tests, additional formative material will be developed for use in the classroom. These 'tests' will be optional, but how likely are classroom teachers to make use of this resource and what would make it most useful?

Question 8 – The reading and numeracy tests will generate standardised scores and progress scores. Should an age equivalence also be provided?

Question 9 – What do you consider to be the practical implications of administering and marking reading and numeracy tests in your school?

Question 10 – What analyses of the test data (for example, included in your Core Data Set or provided via DEWi when data is uploaded) would be useful to support planning at individual learner, class, school or local authority (LA) level, and to support self-evaluation?

Appendix 2: Glossary of literacy terms

Note: The focus of this glossary section is on the terms and concepts that are relevant to literacy and the performance-based standards framework. It includes some, but not all, of the specialist terms that appear in the standards.

For more information see:

- Language, Literacy and Communication Skills

- Guidance on the teaching of writing skills

- Developing higher-order literacy skills across the curriculum.

Writing

Text types

Discussion/argument
Exploration of pros and cons of a topic, presenting arguments and information from differing viewpoints, sometimes resulting in a conclusion.

Explanation
Reasons and details are included to show why and how, often including expressions of causes and consequences, and connections between events or ideas.

Instruction/instructional
Describes text written to help readers do something properly, *e.g. recipes, vehicle repair manuals, self-assembly instructions*. Instructional text tends to use imperative verbs and to provide step-by-step instruction.

Persuasion
To be persuasive is to try to influence or convince the reader. A continuous, persuasive text typically consists of a statement of the viewpoint, arguments and evidence for this thesis, possibly some arguments and evidence supporting a different view and a final summary or recommendation. Other types of persuasive texts (*e.g. advertisements*) use a combination of textual features including words, sounds and images, in order to persuade.

Recount/narrative
Retells events in chronological order. It may be fictional or include information.

Report
An event or a process described, not necessarily chronologically.

Grammar

Adjective
A word that describes or modifies a noun. It may come before or after the noun, *e.g. 'the blue chair' or 'the chair is blue'*. There are different kinds of adjective: number or quantity (*e.g. 'few'*), quality (*e.g. 'good'*), possessive (*e.g. 'my'*), interrogative (*e.g. 'which'*) and demonstrative (*e.g. 'this'*).

Adverb
A word that describes or modifies a verb, *e.g. 'she ran fast', 'he arrived late'*.

Clause
A distinct part of a sentence including a verb. There are two kinds: a **main clause** (*e.g. 'I will do my homework'*) and a **subordinate clause** (*e.g. 'when I get home'*). The clause makes sense on its own, but the subordinate clause does not.

Complex sentence
A sentence with an independent clause and at least one dependent clause (subordinate clause). The dependent clause is introduced either by a conjunction, *e.g. 'although' or 'because'*, or by a relative pronoun, *e.g. 'who' or 'which'*.

Compound sentence
A compound sentence is created when two simple sentences are joined by conjunctions, *e.g. 'and', 'or' and 'but'*.

Conditional
A tense of a verb which expresses the idea that what happens depends on something else. Conditional forms often involve conjunctions, *e.g. 'if' or 'then'*, and verb forms, *e.g. 'would' or 'may'*.

Noun
A word that names a thing or a feeling. The four types of noun are: common (general, *e.g. 'animal', 'chair'*), proper (a specific name, *e.g. 'Bangor'*), abstract (an idea or concept, *e.g. 'happiness'*) and collective (a group, *e.g. 'herd', 'crowd'*).

Paragraph
A section of a piece of writing. A new paragraph indicates a change of time, place, subject or speaker in a dialogue and begins on a new line. Sometimes the writer also uses a one-line gap or an indent on the first line.

Subject–verb agreement
Linked words agree with each other in terms of number, case, gender and person, *e.g. 'I say', 'he says' (person); 'the girls carried their books' (number).*

Verb
A word that expresses an action or state of being. Verbs can be in different tenses. Verbs can be active or passive, *e.g. 'Jenny drove the car' (active), 'The car was driven by Jenny' (passive).*

Spelling

Consonant
All letters of the alphabet except 'a', 'e', 'i', 'o', 'u'.

Prefix
A group of letters added to the beginning of a word to change its meaning, *e.g. 'unclear'.*

Root word
A word to which prefixes and suffixes may be added to make other words, *e.g. the root word is 'polite' in 'politely', 'impolite', 'politeness'.*

Suffix
A group of letters added to the end of a word to change its meaning, *e.g. 'run' to 'runner' or 'walk' to 'walked'.*

Punctuation

Apostrophe (')
Used to show contraction, *e.g. 'haven't'*, or possession, *e.g. 'the dog's basket'.*

Colon (:)
Used to introduce a list, a second clause or a quotation that expands or illustrates the first clause.

Comma (,)
Used to separate parts of a sentence or list.

Exclamation mark (!)
Used at the end of a sentence to show emotion such as shock, humour, joy, anger.

Full stop (.)
Used to indicate the end of a sentence.

Question mark (?)
Used at the end of a sentence to show that it is a question.

Semicolon (;)
Used to separate a clause or phrase in a sentence. It is stronger than a comma, but not as strong as a full stop.

Speech marks (" ")
Sometimes called inverted commas, used to show direct speech in a text.

Organisational features (of a document)
Refers to those aspects of the visual display of text that give a clue to its status and to its relation to other pieces of text. Such features include contents pages, chapter headings and other subheadings, bulleted lists, captions to photographs and illustrations, text presented in display boxes, tables, footnotes, indexes, etc.

Reading

Graphic knowledge
The ability to understand the key features of a language's writing system, including the basic shape of the letters, the plural form of nouns, spelling patterns in verb endings, the difference between upper and lower case, etc. The term may also be used to refer to understanding of the other features of a text (*e.g. typographical or visual*) that hold clues to its meaning.

Phonics
Relates to vocal, or speech, sounds; breaking down words into letters.

Scanning
Involves looking over a text very quickly, trying to find information by locating key words.

Skimming
Involves reading to get an initial overview of the subject matter and main ideas of a passage.

Sight vocabulary
Focuses on words that a learner recognises on sight without having to decode them or work them out.

Synthesis
To synthesise information is to go beyond simply summarising findings from reading. It involves assessing and sorting facts, opinions and ideas from a range of sources and bringing them together to present a consistent and coherent interpretation.

Speaking

Formal language
Characterised by more elaborate grammatical structures and by more conservative vocabulary, *e.g. 'obtain' rather than 'get', 'gratuity' rather than 'tip'*.

Formal discussion
A formal discussion or situation is where there are rules of conduct, *e.g. a meeting*.

Informal language
More colloquial than formal language, uses simple grammatical structures and less technical or complex vocabulary.

Appendix 3: Glossary of numeracy terms

Note: The focus of this glossary section is on the terms and concepts that are relevant to numeracy and the performance-based standards framework. It includes some, but not all, of the specialist mathematical terms that appear in the standards.

Appropriate
Suitable for intended task, context and complexity. The use of 'appropriate' in the framework recognises that different contexts require different treatments.

Approximation
Refers to an estimate, result or check that is not exact but is close enough to be useful in a practical context.

Average
Sometimes used synonymously with 'arithmetic mean'. Measures of average include mean, median and mode.

Bar chart/bar graph
A form of representation of numerical data. Frequencies are represented by bars of equal width where the lengths of the bars represent the frequencies. The bars may be presented vertically or horizontally.

Capacity
A measure of quantity of liquids.

Compound measures
Compound measures combine two different types of measurement, *e.g. speed in metres per second, population density in number of people per square kilometre or run rate in runs per over.*

Compound shape
Complex shapes that can be broken down into separate simple shapes.

Data
- **Discrete data**
  Data resulting from a count of separate items or events, *e.g. number of people at a football match*.

- **Continuous data**
  Data that can take any value, *e.g. length, capacity, time, temperature*.

Fractions

- **Proper fractions**
  The numerator (top number) is less than the denominator (bottom number), *e.g. ¼*.

- **Improper fractions**
  The numerator is greater than the denominator, *e.g. 7/4*.

- **Mixed numbers**
  A whole number and a proper fraction together, *e.g. 1¾*.

Frequency table
A table for a set of observations showing how frequently each event or quantity occurs.

Grouped data
Organising large amounts of data into groups that are consecutive and non-overlapping, where appropriate, arranged in equal intervals.

Inverse operations
Operations that are opposite to each other, *e.g. addition and subtraction, multiplication and division, square and square root*.

Mass
In everyday usage, mass is often referred to as weight, the units of which are often taken to be kilograms (*e.g. a person may state that their weight is 75 kg*). In scientific use, however, the term 'weight' takes gravitational force into account.

Mean
A type of average based on equal sharing. The mean is the sum of quantities divided by the number of them, *e.g. the mean of 5, 6, 14, 15 and 45 is (5 + 6 + 14 + 15 + 45) ÷ 5 = 17*

Median
A type of average. The median is the middle number or value when all are arranged in order, *e.g. the median of 5, 6, 14, 15 and 44 is 14*. Where there is an even number of values, the mean of the two middle values is calculated, *e.g. the median of 5, 6, 7, 8, 14 and 44 is (7 + 8) ÷ 2 = 7.5*.

Mixed numbers
See **Fractions**.

Mode
A type of average. The most frequently occurring value in a set of data, *e.g. the mode of 1, 8, 2, 2, 9, 3, 3, 3, 3, 7 is 3*

Order of operations
A convention of using operations in a particular order often expressed as BODMAS or BIDMAS.

B	Brackets first	**B**	
O	Orders (i.e. powers, square roots, etc.)	**I**	Indices
DM	Division and Multiplication	**DM**	
AS	Addition and Subtraction	**AS**	

Pictogram
A form of representation of data. Pictures/symbols/icons are used to represent objects. For large numbers, one symbol represents a number of objects. Part symbol represents a proportion of a number.

Pie chart
A form of representation of data. A circle is divided into sectors where the size of the sector represents appropriate proportions of the data.

Proportion
A part of quantity often described using terms such as percentage, fraction, decimal, and ratio.

Range (in relation to data handling)
A measure of spread in statistics, i.e. the numerical value calculated by finding the difference between the greatest and the least values in a set of numerical data.

Ratio
A comparison of quantities written *a:b*, *e.g. a mixture made up of two ingredients in the ratio 3:1 is three parts of the first ingredient to one part of the second*.

Reciprocal
What to multiply a value by to get 1, *e.g. the reciprocal of 4 is ¼*.

Round (verb)
To express a number or measurement to a required degree of accuracy, *e.g. 537 rounded to the nearest 10 is 540*.

Scale
The ratio between the size of something real and the size of a representation of it.

Standard form
Using powers of 10 to record very large or very small numbers, *e.g. 6 500 000 can be written as 6.5 x 10 6 and 0.000000321 can be written as 3.21 x 10-7*.

Standard units
Units that are agreed throughout a community, *e.g. a metre is a standard unit of length*. Non-standard units are, therefore, those that are not widely agreed, *e.g. cupful*.

Table
An orderly arrangement of information, numbers or letters, usually in rows and columns.

Tally
(Make) marks to represent objects counted.

Volume
A measure in three-dimensional space.

Weight
See **Mass**.