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# National Numeracy Programme



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<b>Audience</b>	Lead members for education, regional consortia, local authority directors of education, local authority advisers, headteachers and schools' senior management, and teacher training institutions.
<b>Overview</b>	This document provides an overview of the Welsh Government's intended actions to improve standards of numeracy in Wales.
<b>Action required</b>	This document may be used by regional consortia, headteachers and senior school leaders to plan for and implement change.
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<b>Additional copies</b>	This document can be accessed from the Welsh Government's website at <a href="http://www.wales.gov.uk/educationandskills">www.wales.gov.uk/educationandskills</a>

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## Introduction

### The ambition for Wales

Our Programme for Government stated that our aim for education is to ‘help everyone reach their potential, to reduce inequality, and to improve economic and social well-being’.

The Minister for Education and Skills’ priorities are improving standards of literacy and numeracy, and reducing the impact of deprivation on educational attainment.

The document *Improving schools* (Welsh Government, 2012) sets out the way forward for ensuring a robust education system in Wales. Improving the three priority outcomes of literacy, numeracy and breaking the link between these levels and deprivation remain at the heart of this plan.

The National Numeracy Programme (NNP) for Wales sets out the actions that will be taken by the Welsh Government and our partners to achieve a step-change in standards of numeracy over the next five years.

Numeracy is an essential life skill and learners need to be able to apply this skill across the curriculum in different subject areas, and in real life contexts. Mathematics is a part of numeracy, but to be numerate means you are able to apply some of these mathematical skills in many more contexts than in mathematics lessons and across several subject areas. It is therefore our expectation that **all** teachers will be teachers of numeracy.

To help distinguish between numeracy and mathematics, we have defined numeracy in the following way for the purposes of this programme:

“ Identifying and applying numerical reasoning skills in order to solve a problem, and carrying out the numerical procedures which enable people to work out and show their solutions. ”

To create a system where these skills are taught and learned effectively, we must set out our ambition and vision, and back this up with firm, supportive actions and funding.

We need to provide a curriculum that is representative of the skills, concepts and principles that are needed in later life, outside of a purely mathematical context. Numeracy must be considered as a ‘whole-school’ approach and should be integrated across the whole curriculum.

If all learners are to achieve their potential, we need the continued support and commitment of all teaching practitioners across Wales. In addition, we must ensure that parents and carers value equally the education that their child receives, and embrace the improved opportunities in numeracy that will be available.

We need to ensure that everyone is aware of the importance and relevance of numeracy as a skill. Being numerate adds value to a person's earning power, and a nation of numerate people will add value to the Welsh economy. A partner programme for addressing literacy has recently been introduced. The National Literacy Programme shares a number of the actions seen within this programme which are aimed at jointly addressing both numeracy and literacy standards.

This programme has an overall objective of raising numeracy levels across Wales, through a number of activities designed to support practitioners, learners and parents/carers. All activities and supporting materials are available through the medium of English and Welsh.

The NNP will be reviewed on a regular basis in order to allow for new actions to be added, if needed, and to ensure our plans align with the best advice available. We will do this with the support of an external expert panel consisting of academics and practitioners. This will keep us focused on our goal which is to have robust and consistent standards of numeracy across Wales, allowing us to tackle disadvantage and be better able to compete economically on a global scale.

## The need for action

We know that we need to have a focused approach to improving numeracy standards in Wales. Currently, numeracy standards in Wales are below our expectations and we need to take affirmative action to improve these.

One of the areas that PISA (Programme for International School Assessment) tests is mathematical literacy. Their [definition](#) for mathematical literacy is close to our definition of numeracy, and is defined as:

“an individual’s capacity to identify and understand the role that mathematics play in the world, to make well-founded judgements and to use and engage with mathematics in ways that meet the needs of that individual’s life as a constructive, concerned and reflective citizen.”

The 2009 PISA results for mathematical literacy were disappointing. Wales did not perform as well as the other UK nations, and its mathematics scores were below the OECD (Organisation for Economic Co-operation and Development) average.

The table below illustrates this.

### **PISA mathematics scores, UK and OECD average (2006 and 2009)**

	Wales	England	Scotland	Northern Ireland	OECD average
2006	484	498	506	494	498
2009	472	492	499	492	496

Source: [PISA](#) and [NFER](#)

A 38 point gap from the OECD average is taken to be the equivalent of one school year in education. The difference of 24 points between Wales’s score and the OECD average would indicate that Welsh children are the equivalent of over half an academic year behind that average, and around half a year behind their nearest neighbours in England. Indeed, we can also see that Wales went backwards in PISA compared to 2006. Sixty-five countries took part in the 2009 PISA round. In mathematics, 35 countries performed better than Wales.

Beyond the PISA results, we don’t have many measures that specifically focus on numeracy performance. However, we can use mathematics results as a proxy to give an indication of underlying

numeracy standards. In the 2010/11 GCSE results for Wales, 60 per cent of entrants in GCSE mathematics achieved grade A\*–C, which shows progress from 54 per cent in 2005/06. However, this compares with progress from 54 per cent in 2005/06 to 67 per cent in 2010/11 in England.

Both these measures highlight the fact that we are progressing, but not as much as we would like, and not as quickly as our nearest neighbours. It is vital that we address this and implement a targeted approach to raising numeracy standards. Not only do we want to close the gap, we want to establish ourselves as a nation within the top PISA countries. Doing nothing is not an option.

We would like to build on those areas where we are successfully developing numeracy skills. The 2010 Estyn report, *Improving numeracy in key stage 2 and key stage 3* noted that standards of numeracy have been stronger in Key Stage 2 than in Key Stage 3 in school inspections since September 2005. It also noted that in primary schools, a good standard of numeracy occurs where numeracy skills are applied across the curriculum. Conversely in secondary schools, the report highlighted that only a few schools have good strategies to develop learners' numeracy skills across the curriculum. This tells us that we need to make numeracy skills relevant to the whole curriculum, and particularly within secondary schools. This will be a focus for the NNP.

## The impact on Wales

Not being numerate often means that a person will steer clear of a mathematical field of work. A lack of numeracy skills significantly impacts upon young people's career choices and affects a person's role in the economy. Adults with an equivalent of a Level 1 (expected at the end of Year 9) ability in numeracy or above, earn on average 26 per cent more than adults with skills below this level. When allowing for education level, social class, parental/carer interest in the child's education and type of school attended, there is still a 10 per cent earnings premium for numeracy. The London School of Economics has [noted](#) that the raw wage premium from having adequate numeracy skills is greater now than it was in the early 1990s.

In 2009, the Every Child a Chance Trust published a [report](#) which examined the link between numeracy skills and the cost to the economy of not having these skills. It claimed that there is a significant return to investment by lifting up the numeracy standards of those who would otherwise leave school without numeracy skills – of the order of between £12 and £19 for every £1 spent. Whilst this report looked at the impact on England, if it is even only partly true for Wales, then the benefits of raising numeracy standards to the Welsh economy, and its people, are great.

The impact on the economy of having, or not having, numeracy skills is too great to ignore.



## The challenges we need to address

It is essential that we understand why numeracy levels in Wales are not as high as we would like, and identify appropriate actions to address this. We have consulted local and international academics and experts specialising in numeracy and in school improvement, and have also conducted a Rapid Evidence Assessment (REA). The REA undertook a review of the available evidence base in relation to what works for the effective teaching of numeracy for children aged 5 to 14. The REA can be found at the following [link](#).

Our research has informed the development of this programme, and a number of key challenges have emerged. These themes and some of the key findings are summarised below.

### **Curriculum factors**

There is a need to integrate the teaching of numeracy across the curriculum as a whole, with learners given the opportunity to apply numeracy principles across different subject areas, enabling numeracy to be taught in a way that does not look like mathematics.

### **Teaching practice**

'How we teach' was identified as a key factor, and consideration of teaching practice and methods is crucial if we are to maximise student engagement and motivation.

### **Teachers' professional development**

Teachers' own skills in numeracy and mathematics are vital in giving them the confidence and ability to teach numeracy and mathematical techniques. This can be considered during initial teacher training and also in relation to continuing professional development.

### **Interventions**

Well-designed, individually tailored intervention programmes for learners that have mathematical and numerical difficulties are critical as without a sound grasp of the building blocks of mathematics, children cannot progress to higher levels of skills and understanding. Early identification and intervention for those learners is crucially important.

### **Attitudinal change**

Separate from the REA, a YouGov poll commissioned in February 2012 found that 80 per cent of adults questioned would be embarrassed to admit that they could not read or write properly. By comparison, only 56 per cent would be embarrassed to admit that

they were bad at mathematics/numeracy. There is a perception by some that it is 'okay not to be good with numbers'. The ability to use numbers well is important to the Welsh economy, and can have a significant impact on well-being and future prospects. We will seek to make sure that all people in Wales realise the importance and benefits of numeracy.

We also need to ensure that we foster a behavioural change, and address some of the unhelpful attitudes that are currently associated with numeracy. We need to highlight the differences between numeracy and mathematics and change the negative thoughts and feelings that teachers, parents/carers and learners sometimes have towards numeracy.

We have developed and adapted these themes to form a structure for the NNP. These are:

- enhancing the numeracy curriculum
- advancing teaching practice in numeracy
- supporting learners quickly and successfully
- communicating the power of numeracy.

We believe that these themes will collaboratively impact and raise numeracy standards. We need to ensure that we have a world-class curriculum, with highly skilled teaching staff, and a range of interventions specifically designed to ensure that all learners reach their potential.

We are committed to achieving the clear vision that is outlined in the NNP to improve numeracy standards across Wales. We will support teachers of every subject area, across all phases of education to become confident and capable teachers of numeracy.

We envisage that the NNP will encourage greater collaboration within and across local authorities, sharing best practice, development and opportunities. Individual schools, practitioners, parents/carers, local authorities and consortia all have a part to play.

We appreciate that we have set ourselves an ambitious programme, but with your commitment we are confident that the NNP will be a success.

## What we want to achieve

By embedding numeracy skills in every aspect of education, and by providing quality support, our aim is to achieve the following.

- Learners of all ages will become more confident in their numeracy skills and will be able to apply these within different subjects and contexts.
- Teachers are more confident in teaching and using numeracy, and are better equipped in terms of subject content and its approaches and delivery methods.
- Learners who are falling behind their peers are identified early and supported to achieve their potential.
- More able and talented learners are appropriately challenged and developed.
- Learners leaving compulsory education will have the numeracy skills that are vital for successful employment or further education experience.
- Teachers, parents/carers and learners are fully aware of the need to improve numeracy levels, and of the benefits of doing so.

We will measure the success of the delivery of our actions, and the impact that they have on the above outcomes through a programme of ongoing evaluation.

## How we will achieve our goal – description of main activities

### **Enhancing the numeracy curriculum**

The curriculum was identified in our research as having a resounding impact on numeracy standards. The research highlighted the importance of integrating numeracy across the curriculum, and of assessing it appropriately. National expectations and standards for numeracy are necessary to ensure that schools are able to develop a coherent approach to embedding numeracy skills across the curriculum. We will also ensure we have a way of measuring progress against those skills.

In order to ensure that we have clear, precise expectations for the improvement of numeracy across the curriculum a **National Literacy and Numeracy Framework** (LNF) has been developed. It draws on the features of high-performing international models by setting out annual expected outcomes in literacy and numeracy. The LNF will replace the number element of the non-statutory skills framework and will be a statutory curriculum requirement. Having national expectations and standards are integral to our programme.

The framework will contain components for numeracy. These will:

- establish annual expected outcomes in numeracy for all learners aged 5 to 14
- determine how learners are performing against national standards for numeracy and provide a continuum of development
- inform teachers of all subjects about how to apply numeracy across the curriculum to raise levels of attainment
- enable schools to identify how best to support and challenge all of their learners
- ensure that learners, parents/carers and teachers are clear as to how learners are progressing and what the next steps are.

Following the consultation period, the LNF will be launched as a final version in January 2013 and will become a statutory curriculum requirement from September 2013. From 2013, senior managers and teachers will have access to a wide range of guidance materials to support the effective implementation of the LNF, including examples of learners' work to support decision making regarding formative assessment.

Alongside the LNF, we are developing annual **national numeracy tests**. These bespoke tests are for all learners in Years 2 to 9, and are being developed by the National Foundation for Educational Research (NFER) in partnership with Acumina. The tests will generate summative, highly reliable, comparable data which will enable schools and local authorities to measure learner progress and focus attention on improving 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.

In December 2011 we commissioned independent research to review numeracy tests in Wales for children aged 5 to 14 years old. The research identified that numeracy tests currently available focus mainly on assessment of process (i.e. carrying out mathematical procedures properly and presenting their findings) with little testing of the underlying reasoning skills (i.e. the ability to understand what mathematical skills are needed to solve a problem and how to apply it). Previous research suggests that reasoning abilities play at least as an important role in their mathematical learning as does their knowledge of mathematical procedures.

The testing of numerical process will be introduced first in May 2013, with a test for assessing numerical reasoning piloted in tandem. The numerical reasoning tests will then be introduced in May 2014.

Ongoing assessment is a core element of good teaching practice. The tests in themselves will not raise standards; it is what happens in response to the tests that will make a difference.

The formative assessment of learners through the LNF and the summative assessment of the numeracy tests will provide teachers with an indication of learner progress in numeracy. This will allow schools to better identify and support learners who are falling behind with appropriate intervention strategies, and provide more able and talented learners with greater challenge.

The additional focus on strengthening numerical reasoning skills in the LNF and numeracy tests represents a major development in numeracy in the curriculum, to which both teachers and learners will need to adapt.

Teachers will be supported to meet this new challenge. A suite of guidance and training materials will be developed to support senior managers and teachers across the curriculum in order to effectively implement the LNF and tests.

## Advancing teaching practice in numeracy

‘What we teach’ cannot be considered in isolation. The key to success for learners also depends on the quality of teaching. We must ensure that all teachers become accomplished teachers of numeracy and foster a greater understanding of different approaches to teaching. In addition, we must ensure that all teachers across the curriculum improve their own knowledge of numeracy to ensure they can teach their learners effectively.

We are committed to developing the numeracy skills and expertise of new teachers through initial teacher training and the early induction period, and also the continued development of existing teachers throughout their careers.

We have recently implemented revised requirements for the provision of **initial teacher training** courses in Wales. We are keen to ensure that good standards of numeracy are a requirement for all teachers wishing to obtain qualified teacher status and not just mathematics teachers. Our statutory requirements insist that all teachers have a minimum academic qualification entry standard equivalent to a GCSE grade B in mathematics. All ITT providers must ensure that entrants are assessed as having functional numeracy skills applicable to a professional teaching context, and that they are regularly and accurately assessed to ensure they continue to meet the required standards.

The review of professional standards, performance management and professional development that we undertook in 2010 revealed that the interpretation, quality and implementation of the arrangements for induction and early professional development of teachers varied widely across schools in Wales. In response to this we are launching a **Masters in Educational Practice** (MEP) for newly qualified teachers. The MEP will be:

- practical in nature and focussed on improving teaching practice
- about improving practice and raising standards, and will be awarded for demonstrating excellent, effective practice
- focused on the Minister’s three key priorities, including numeracy.

Once our new statutory induction arrangements and MEP are implemented, we will carry out a review of newly qualified teachers to assess their skills and ability in the teaching of numeracy, to ensure we continue to develop new entrants.

The MEP qualification will be supported by **high-quality resources**; a single repository of resources which are quality-assured and hosted on the new Learning Wales website. Academic research will be available for those practitioners studying for their Masters course, and a range of other materials to suit the varying needs of practitioners across Wales will also be available. All teachers in Wales will be able to access resources that offer a range of proven approaches and strategies in the development of numeracy skills, teaching strategies and approaches.

We have recently reviewed and revised **professional standards** for practicing teachers in order to raise the standards of teaching and to improve learner outcomes throughout Wales. The professional standards articulate the understandings, knowledge and values that our teachers, leaders and Higher Level Teaching Assistants must demonstrate. They provide a framework to enable practitioners to identify their performance management objectives and choose the most appropriate professional development activities.

Further support is available through the introduction of a national model for **Professional Learning Communities** (PLCs). The model provides teachers with an effective method to work through issues or barriers to school improvement in the area of numeracy. It also provides an effective form of professional development for all staff involved in a PLC (including support staff). A PLC is a group of practitioners working together using a structured process of enquiry to focus on a specific area of their teaching to improve learner outcomes and so raise school standards. PLCs encourage professional collaboration and transfer of effective practice within and between schools. This can help reduce variation in teaching performance within and between schools. Effective PLCs:

- focus on learner needs and so have a clear sense of purpose
- are data informed so they work on areas in most need of improvement
- pay close attention to improvement in teaching approaches
- use structured processes of enquiry so that their outcomes lead to informed changes in professional practice
- provide practitioners with opportunities to engage in purposeful collaborative work to innovate, develop and learn together
- operate through distributed leadership with all members participating in decisions and taking joint responsibility for the outcomes of their work.

Improving learning and teaching in numeracy will be a key element of the action enquiry undertaken by PLCs.

As they develop, we expect that the informal evidence gathered from the implementation of the LNF and formal data gathered from the numeracy tests will provide the focus for the PLCs' action enquiry.

The Welsh Government will, through the School Effectiveness Grant, require that regional consortia identify **outstanding teachers of numeracy** to work with their peers to build the skills, knowledge and capacity of other teachers and practitioners in sharing effective practice in numeracy. These outstanding teachers will be released from a percentage of their teaching commitments on a regular basis to model best practice, support PLCs, and partner other teachers and schools with less expertise in numeracy. They are likely to be successful teachers whose skills will depend on the role they are fulfilling, for example they may be numeracy experts or subject teachers with a particular expertise in improving learners' levels of numeracy.

## **Supporting learners quickly and successfully**

Interventions are approaches and methods that can be used when there are recognised problems or difficulties with a learner's understanding of numeracy or in a learner's ability to understand numeracy teaching. In addition to additional teaching, there are a number of approaches that can be used to enable a learner to catch up, without falling behind again, and achieve their full potential.

All teachers need to be able to identify and diagnose learners who need catch-up support. The LNF together with the national numeracy tests will help identify learners who are considered to be falling behind their peers.

Guidance will be available on the Learning Wales website on effective English and Welsh-medium catch-up provision available. This guidance has resulted from an extensive review of existing interventions available and lists specific programmes where evidence of impact was found. The document will be updated to include additional interventions as and when suitable interventions are evaluated.



The guidance document will provide information on how to identify learners who need catch-up support, and detailed information on each intervention, including:

- the nature of the intervention, i.e. if it is purely numeracy-focused and whether it focuses on a more specific element within those skills
- an overview and detailed synopsis of the catch-up programme, including target audience, method of delivery, practitioner support available, cost and evidence of impact
- guidance on implementing each programme, in terms of who delivers the intervention, the duration of the programme, the environment in which it should be delivered; ways of communicating information about the intervention to parents/carers; the process of measuring and recording individual progress and development, succession and future tracking.

The School Effectiveness Grant will provide funding for the implementation of catch-up programmes.

**Employer engagement** programmes can cover a range of activities including student mentoring, job shadowing, employer engagement in curriculum development and employer delivery in the classroom. Where these work well, there is evidence of young people performing better in exams and assessments as a result of that activity. Employers gain the benefits of having an input into school teaching and take a greater role in their local community.

We have seen that there are benefits to such schemes, and in particular when the purpose of these schemes is focused on specific areas of the curriculum, such as numeracy. We are proposing to broker employer engagement programmes between schools and employers to exploit the skills in the workforce to support teachers and learners in lifting levels of numeracy. Through this, teachers and employers will work together to create relevant subject materials which provide business and real life contexts for learners; the aim is increased engagement from both teachers and learners.

## Communicating the power of numeracy

We need to address the attitudes and behaviours of young people, teachers and parents/carers towards numeracy. There appears to be a much greater degree of social acceptability in 'not being good with numbers'. This behaviour is often ingrained not only in learners, but in parents/carers and even teaching staff too.

Not all learners will wish to study mathematics to a higher level but numeracy is a real world skill which is vital to all. We need to ensure that there is a greater awareness of how numeracy differs from mathematics, and how numeracy skills are employed in everyday life.

Communications and engagement actions within the NNP will seek to redress these attitudes by highlighting the importance of numeracy and how it is just as essential as being able to read.

We will also seek to create additional resources for early learners to help them encounter number, and its applications, early in their lives. This will help to raise the status of numeracy in the next generation of learners.

It is clear that the NNP sets an ambitious vision for the next five years. It aims to:

- raise the numeracy standards of all learners
- break the cycle of underachievement in numeracy in Wales
- raise the competence and confidence of teachers in teaching numeracy
- improve social attitudes and behaviours around numeracy.

There are many schools across Wales that are demonstrating good practice and we need to build on this to ensure that learners in all schools across Wales benefit from excellent teaching of numeracy and develop the skills that are so vital to their future success.

## Annex A: Actions to be implemented

The Welsh Government has set four clear priorities and associated actions to guide our work and the work of our partners over the next five years. Milestones for key actions are available on the [Welsh Government website](#).

### **1. Enhancing the numeracy curriculum**

- We will provide a clear vision for numeracy in Wales that has commitment and support from local authorities, consortia, teachers and other practitioners.
- We will encourage a whole-school approach to tackling numeracy by developing a statutory National Literacy and Numeracy Framework, establishing annual expected outcomes in numeracy for all learners aged 5 to 14. This framework will be implemented in schools, which will be supported by regional consortia.
- Learners' progress can be tracked more efficiently and compared against national standards by developing national numeracy tests for all learners in Years 2 to 9.
- Ensure that the numeracy skills are taught and assessed on both reasoning and procedural skills, with a more developed description of reasoning skills.

### **2. Advancing teaching practice in numeracy**

- Revised requirements for initial teacher training courses will be implemented to ensure that we further raise the calibre of new entrants into teaching, and ensure that all new teachers have competent standards of numeracy.
- New teachers will be supported in their professional development through a new Masters in Educational Practice (MEP) which includes a focus on numeracy. This professional development material is also to be made available to all teaching staff in Wales.
- Welsh Government will work to provide a repository of high-quality resources to meet the Continuing Professional Development (CPD) needs of all practitioners across Wales, to ensure that we enhance their numeracy skills and expertise.
- Professional Learning Communities (PLCs) will be promoted as a vehicle to develop professional skills in numeracy, which is supported by appropriate guidance.

- Regional consortia will be funded to identify and deploy outstanding teachers of numeracy to work with their peers to build the skills, knowledge and capacity of other teachers and practitioners in sharing effective practice in numeracy.
- We will ensure that teaching practitioners receive support in the teaching of numeracy and the delivery of the National Literacy and Numeracy Framework.
- We will continue to seek proven approaches to teaching numeracy and share these with teaching practitioners to enhance teaching practice.
- We are supporting teachers in primary and secondary settings to update their skills to teach financial capability – a specific, and important, application of numeracy.
- A review of Key Stage 4 mathematics will be published by the Welsh Government's School Standards Unit (SSU) in the autumn term. Our data analysis has highlighted the significant underperformance across Wales in mathematics at GCSE, and the report will focus on what works in secondary schools that buck the trend and in which performance in GCSE mathematics is as good or higher than performance for English/Welsh first language.

### **3. Supporting learners quickly and successfully**

- Schools will be provided with guidance on interventions available for those learners who are falling behind their peers to ensure that all teachers are able to identify those learners in need of support and implement an appropriate intervention.
- A programme will be developed to encourage employers to work with schools specifically to support teachers in the teaching of numeracy to learners.

### **4. Communicating the power of numeracy**

- We will continue to reinforce the messages of the importance of numeracy with a variety of communications and engagement activities, working with like-minded partners where possible.
- Additional resources on numeracy will be created to give to children as they enter the Foundation Phase.
- The Wales Omnibus Survey will tell us whether attitudes to numeracy are improving over the lifetime of this programme.

## Annex B: Who is delivering what

This section makes it clear who is expected to deliver the actions within the National Numeracy Programme (NNP).

### **Schools and teachers are expected to:**

- use the National Literacy and Numeracy Framework (LNF) and available support to plan their curriculum and to monitor learner progress, inform self-evaluation, report to parents/carers and to identify where support for learning is needed
- administer the numeracy tests, analyse and use the data at individual learner and group level to outline the next learning steps and to address learning gaps and problems creatively and proactively to raise standards
- use the numeracy tests at whole-school level to identify strengths and areas for improvement in learning and teaching
- use the numeracy tests to help inform school self-evaluation, development planning and areas of improvement, and identify whole-school resourcing and individual staff CPD needs
- encourage and support newly qualified teachers to take the Masters in Educational Practice (MEP) or access the relevant learning materials for CPD purposes
- use the teacher CPD resources on the Learning Wales website
- be active users of Learning Wales and feed back if there are areas of numeracy support that can be enhanced and developed further
- take part in PLCs to develop their own professional skills in numeracy and applying the LNF
- seek an opportunity to be, or to learn from, outstanding teachers of numeracy
- take up opportunities to gain from CPD support in financial literacy
- use consortia guidance and support to identify learners needing catch-up programmes in numeracy, and make use of proven interventions to help those children progress
- use opportunities funded by Welsh Government to work with employers in specific actions to raise numeracy standards
- work with Foundation Phase materials focusing on early number skills, where applicable.

**Local authorities and regional consortia are expected to:**

- place numeracy at the heart of support and challenge for school improvement
- set out in their annual School Effectiveness Grant spending plans how they will improve standards of numeracy
- support schools and teachers in implementing the National Literacy and Numeracy Framework (LNF) and in teachers' own numeracy skills
- monitor schools' progress in numeracy tests and provide support and challenge appropriately
- identify and share good practice and areas for improvement in relation to the use of numeracy test data
- use teacher CPD resources on Learning Wales to develop teachers' skills in teaching numeracy
- work with PLCs to develop professional skills in numeracy
- lead on the identification and deployment of outstanding teachers of numeracy to support other teachers in their consortia
- support teachers to diagnose the need for catch-up interventions and deliver the most appropriate catch-up support which is proven to work
- train teachers to deliver catch-up support
- collect and supply information to the Welsh Government, as needed, which tracks the effectiveness of actions delivered as part of the School Effectiveness Grant, and the impacts of those actions
- encourage and facilitate the numeracy employer engagement programme, where available.

### **Welsh Government is expected to:**

- set out the programme for raising numeracy standards
- develop a National Literacy and Numeracy Framework (LNF)
- develop a national numeracy test for Years 2 to 9
- deliver a national support programme for teachers to implement the LNF
- raise the expectations in terms of mathematics qualifications for initial teacher training entrants
- develop a Masters in Educational Practice (MEP) for newly qualified teachers
- publish high-reliability teacher CPD resources and teaching materials on numeracy on the Learning Wales website
- publish online guidance and make available face-to-face support for PLCs to ensure their activity has focus and impact
- fund outstanding teachers of numeracy
- research proven approaches to teaching fundamental numeracy skills
- provide CPD support to teachers in financial literacy
- publish guidance showing catch-up interventions which are proven to work
- fund catch-up programmes through the School Effectiveness Grant
- create a programme for employers and schools to work together to lift up numeracy standards
- communicate messages on the definition and value of numeracy in everyday contexts
- develop Foundation Phase materials focusing on early number skills
- monitor the success of this programme through evaluation and seeking advice from a numeracy expert panel.