

# Primary National Strategy

## Primary Framework for literacy and mathematics

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# Primary Framework for literacy and mathematics

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The renewed Primary Framework for literacy and mathematics marks another important step in our drive to raise standards and personalise learning so that all our children can achieve their full potential. Since 1998, much progress has been made by primary schools in raising standards, drawing on the support of the National Literacy and Numeracy Strategies. However, despite the distance travelled national test results show progress is not being sustained across the board. We know more can be achieved and the Framework provides a fresh momentum for securing progressive gains. It is critical not to lose the focus on Key Stage 1 in particular as this is the major milestone on the way to children being confident in literacy and mathematics by the time they leave their primary schools.

The renewed Framework takes account of the significant developments that have taken place since the publication of the original Frameworks at the end of the 1990s and of the best practice seen in our most successful primary schools, which is ensuring high achievement for all children. The recommendations of the *Independent review of the teaching of early reading* – the Rose Report – and the central role of systematic phonics instruction are firmly embedded within the Framework. The electronic structure will help teachers in their planning, improving access to the wide range of resources produced through the Primary National Strategy to support improvements to teaching and learning.

It is in our primary schools and Foundation Stage settings that curiosity and enthusiasm for learning is first nurtured and our children develop the confidence to read, to write and to calculate. It is imperative that all our children develop these basic skills to sustain their learning and the confidence to access the curriculum as they move into secondary education. I am sure that the new Primary Framework for literacy and mathematics provides teachers and practitioners with the tools they need in order to achieve this goal.

A handwritten signature in cursive script that reads "Andrew Adonis".

**Andrew Adonis**

Parliamentary Under-Secretary of State for Schools

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**In the electronic version of this document, each subsection has an overview of the intended audience, purpose and key messages**

# Introduction

## Ambitions and challenges for the future

The renewal of the Primary Framework for literacy and mathematics offers everyone involved in teaching children aged from 3 to 11 an opportunity to continue the progress made in raising standards by embedding the principles of both *Every child matters: change for children* (2004) and *Excellence and enjoyment: learning and teaching in the primary years* (0518-2004 G) into practice.

*Excellent teaching gives children the life chances they deserve... Enjoyment is the birthright of every child. The most powerful mix is the one that brings the two together. Children learn better when they are excited and engaged – but what excites and engages them best is truly excellent teaching.*

*Excellence and enjoyment: A strategy for primary schools* (ref: 0377-2003)

The aim of the Primary Framework for literacy and mathematics is to support and increase all children's access to excellent teaching, leading to exciting and successful learning.

There is a shared determination between the Primary National Strategy, schools, settings and local authorities (LAs) that all children are appropriately supported to make the progress of which they are capable.

Children deserve:

- to be set appropriate learning challenges
- to be taught well and be given the opportunity to learn in ways that maximise their chances of success
- to have adults working with them to tackle the specific barriers to progress they face.

The Primary Framework for literacy and mathematics is designed to help practitioners, teachers, schools and settings achieve this ambition.

# About the Primary Framework

The original Frameworks for teaching literacy and mathematics, which were introduced in the late 1990s, have contributed significantly towards raising standards and supporting improvements in teaching and learning in our primary schools. Through a combination of greater guidance and continuing professional development (CPD) for teachers, the quality of teaching and consequently the quality of learning and achievement of children in literacy and in mathematics has improved. The National Strategies have continued to build their support for teachers through developing materials and resources that complement the Framework for teaching literacy and mathematics in response to independent evaluation of what is working and of what is needed to support further improvement.

Standards in English and mathematics have risen significantly since the introduction of the Framework but challenges remain. Nearly a quarter of 11-year-olds are still not confidently attaining level 4 or above in mathematics by the time they leave primary school and more still needs to be done to improve standards in writing. To ensure that all our children achieve well and develop the skills to read, write and calculate with confidence and competence, there is a need to personalise further the use of guidance in these original Frameworks.

Much has changed in education since the launch of the original Frameworks for teaching literacy and mathematics. The Foundation Stage was developed and became the first stage of the National Curriculum. Technology and its use in teaching and learning have developed significantly. Much has been learned from further research into children's learning, including longitudinal studies into the lasting effects of early education. There have been developments within the National Curriculum along with a move towards greater personalisation. *Every child matters* set a clear focus on improving five outcomes for children, with a clear continuation of the drive towards improved standards. Developments in the area of early reading as a response to research and the publication of the Rose Report: *Independent review of the teaching of early reading in 2006* have similarly signalled the need to take stock and to look afresh at children's learning and support for teaching. Work is in hand to develop a new statutory framework for children's learning and development from birth to five: the Early Years Foundation Stage (EYFS). The time is therefore right to renew the original Frameworks in order to encapsulate the developments that have taken place over the last eight years.

We want teaching to be of the highest quality and to engage children in learning that secures the achievement of high standards for all children.

## Changes to the original Frameworks

The changes contained in the renewed Primary Framework for literacy and mathematics reflect national policy developments and are built upon research and evaluation undertaken since the late 1990s. There has been widespread consultation on the content of the Framework, and changes that have been incorporated include:

- extend it to the beginning of funded education, to create greater coherence and continuity within and between stages of care and education
- create a clearer set of outcomes to support teachers and practitioners in planning for progression in literacy and mathematics, to help raise the attainment of all children, personalise learning and secure intervention for those children who need it
- bring an increased sense of drive and momentum to literacy and mathematics through the primary phase, involving some scaling up of expectations and a greater focus upon planning for progression through a teaching sequence over an extended unit of work covering two or three weeks

- support schools and settings in implementing the recommendations of the Rose Report through the provision of high-quality teaching of phonics and early reading
- support improved leadership and management of literacy and mathematics to stimulate and improve standards further
- reduce workload and foster professional dialogue on how to use the Framework flexibly to meet the needs of children through focused CPD
- introduce a new, electronic format which allows for customised planning, teaching and assessment, with the ability to link quickly to a wide range of teaching and learning resources available through the Primary National Strategy.

## Framework format, organisation and structure

### Format

The electronic version of the Framework provides more help with planning, teaching and assessment – there is more about this in the literacy section on page 15 and in the mathematics section on page 65.

The electronic and interactive structure to the Framework will help to:

- provide direct links to a wealth of useful materials which will help in planning teaching and children's learning
- provide a clearer picture of progression in core aspects of literacy and mathematics, including the development of early reading within the EYFS and supporting whole-school curriculum targets which identify key steps in learning that children need to secure if they are to make progress and achieve appropriately high standards throughout the primary phase
- improve access to guidance that will support the teaching of specific ideas that children may find difficult, with greater control on how much or how little of this guidance to use, depending on the context and needs facing teacher and practitioners
- clarify and support the significant development in the teaching of early reading, in the teaching of phonics, and in the implementation of the 'simple view of reading'
- support assessment and its effective use
- support the development of longer-term planning of teaching sequences that build learning over time
- integrate provision for speaking and listening strands to promote children's learning in literacy and mathematics
- offer significant support on how the key aspects of learning in the teaching of literacy and mathematics can be applied across the curriculum
- place greater emphasis on the use of ICT to support learning and teaching in literacy and mathematics.

### Organisation and structure

The Framework is organised into strands (12 for literacy and seven for mathematics). These relate directly to the Early Learning Goals and to the National Curriculum Orders for English and mathematics at Key Stage 1 and Key Stage 2. The construction of the Framework around strands provides a useful vehicle for highlighting some of the specific aspects of literacy and mathematics that some children find difficult to learn. The slimmed-down objectives give a clearer sense of the important aspects of literacy and mathematics that children need to learn.

The objectives are presented in two ways: firstly, by year or stage, as structured in the previous Frameworks; then, in response to requests to make progression clearer, the objectives are also presented across the strands showing the specific progression in learning through each strand. The learning objectives cover the Foundation Stage to Year 6. Foundation Stage elements mirror the

relevant sections in the EYFS and the objectives shown in bold are Early Learning Goals. Objectives also show Year 6 progression into Year 7. The structure and presentation of the objectives have been organised in ways that help teachers and practitioners manage their planning and assessment, recognising that within any one class, there will be a range of ability with some working beyond the level of the majority and some working below that level. The presentation of objectives in the electronic Framework shows the progression in learning both before and beyond the objectives in each year group. The organisation and range of objectives are designed to help teachers and practitioners plan across the primary age range, and to support planning for mixed-age classes and those with a broad range of ability. The Year 6 progression to Year 7 identifies aspects of mathematics and literacy that extend and challenge Year 6 children's learning.

## More about the EYFS

The Childcare Act 2006 provides the underpinning legislation for a single quality framework for children from birth to five (the EYFS). The EYFS and the renewed literacy and mathematics Framework provide integrated advice to practitioners about supporting children's care, learning and development from birth to five. The EYFS will be statutory from 2008. Until then, practitioners and teachers should continue to plan and assess on the basis of the *Curriculum guidance for the Foundation Stage* (QCA/00/587) and undertake observational assessment at the end of the stage in line with the Foundation Stage Profile with an awareness of how to move towards implementing the EYFS in September 2008.

In order to support practitioners in developing continuity for children, particularly between the Foundation Stage and Year 1, the relevant sections of the EYFS and literacy and mathematics Framework mirror each other. Practitioners will also continue to find useful support for children's continuity in learning in the approaches outlined in *Continuing the learning journey* (QCA 2005).

## Six areas of learning

It is important to note that all six areas of learning in the Foundation Stage are interrelated and approaches to learning and teaching in the Foundation Stage must match the development and age of the learner. The curriculum planned for the child will be shaped by the principles in the *Curriculum guidance for the Foundation Stage* and the particular needs of individuals and different groups of children, considering each child as an individual.

The six areas of learning represent an integrated structure for supporting the developing curiosity, enjoyment of learning and achievement of young children.

Personal, social and emotional development concerns children's emotional well-being, developing respect for others, and building social skills and a positive disposition to learn. Communication, language and literacy depend on learning and being competent in a number of key skills, together with having the confidence, opportunity, encouragement, support and disposition to use them.

Problem solving, reasoning and numeracy is one of the EYFS areas of learning and development. This area of learning is embedded in the mathematics section of the Framework to maintain continuity once the EYFS is implemented. It involves children building an understanding of problem solving, reasoning and numeracy in a broad range of contexts in which they can explore, enjoy, learn, practise and talk about their developing understanding. Mathematical development depends on becoming confident and competent in learning and using key skills. This area of learning includes seeking patterns, making connections, recognising relationships, working with numbers, shapes, space and measures, counting, sorting and matching. The development of mathematical understanding should include the use of stories, songs, games and imaginative play.



In developing a knowledge and understanding of the world, children are developing the crucial knowledge, skills and understanding that help them to make sense of the world in which they live. This forms the foundation for later work in science, design and technology, history, geography, and information and communication technology (ICT). The physical development of babies and young children is inseparable from all other aspects of development because they learn through being active and interactive. They use all their senses to learn about the world around them and make connections between new information and what they already know. Physical development is about improving skills of coordination, control, manipulation and movement. Creativity is fundamental to successful learning. Being creative enables babies and young children to make connections between one area of learning and another. They need opportunities to explore and share their thoughts, ideas and feelings through a variety of art, mathematics, design and technology, music, movement, dance and imaginative and role-play activities.

It is important that the learning experiences provided for young children in the Foundation Stage provide sufficient opportunity for exploration and a good balance between practitioner-led and child-initiated activity. As practitioners plan learning experiences for young children, it is essential that full account is taken of the links that can be created across the areas of learning to ensure that such experiences contribute to the broad and holistic learning and development.

The Primary Framework for literacy and mathematics provides guidance for children all the way through schools and settings from Foundation Stage to Year 6, and shows progression into Year 7. Practitioners in schools and settings will be working with both the EYFS and this Framework – in order to plan for transition and continuity it is important that Year 1 teachers are familiar with the EYFS.

The EYFS and the literacy and mathematics Framework have been developed alongside each other, with relevant sections mirroring each other. Schools and settings will find that the guidance provided in the literacy and mathematics Framework for the Foundation Stage matches the sections in the EYFS on communication, language and literacy and problem solving, reasoning and numeracy.

- The objectives for the end of the Foundation Stage in the literacy section of the renewed Framework are the Early Learning Goals for communication, language and literacy, and in mathematics they are the Early Learning Goals for problem solving, reasoning and numeracy.
- The learning objectives highlighted in bold within the Foundation Stage for both literacy and mathematics form the Early Learning Goals, with the other objectives in the literacy and mathematics Framework aiming to provide more detailed steps in learning, including additional bullets taken from the stepping stones in the *Curriculum guidance for the Foundation Stage*.

One of the key principles underpinning the development of the renewed Primary Framework for literacy and mathematics has been to ensure that the messages and guidance for Foundation Stage practitioners are consistent between the EYFS and Framework in order that practitioners are not given mixed messages or forced to make choices between available guidance that may appear inconsistent. The integration of advice on early reading following significant developments taking place and incorporated into the Primary Framework will be reflected in the EYFS, building upon the principles outlined in the Rose Report.

## Accessing and implementing the renewed Primary Framework

The renewed Framework for literacy and mathematics is available from autumn term 2006. The electronic Framework can be accessed at [www.standards.dfes.gov.uk/primaryFramework](http://www.standards.dfes.gov.uk/primaryFramework). The material on the website is also available in the form of a DVD. However, the electronic Framework provides a resource that will be added to and expanded with additional support and material as the Framework project develops over the coming year. This will include any necessary revisions to the Early Years elements following the EYFS consultation. The online version will always be the most comprehensive and up to date.

LAs are supporting schools and settings with the effective implementation of the Framework for literacy and mathematics through briefings for headteachers, specific training programmes for school staff with responsibility for leading improvements in literacy and mathematics, and through specific support on the teaching of early reading and implementing the recommendations of the Rose Report. This support has already started and will be further developed across the 2006–07 academic year. The introduction of the EYFS will similarly be supported with support and training.

## Action for schools and settings

In beginning to implement the renewed Framework, schools and settings are recommended to:

- review their current work in communication, language, literacy and mathematics; check their data in these areas; identify priorities in each area; address major weaknesses and then revise their implementation as they go, maintaining the focus upon using the Framework to help raise achievement and improve standards
- become familiar with the navigation and guidance offered by the electronic Framework
- use elements of the renewed Framework, including material and planning units that reflect the priorities arising from the review
- incorporate the outcomes of the considered and searching reviews of the effectiveness of their current work in communication, language, literacy, and in mathematics (or problem solving, reasoning and numeracy, as mathematical development will be called within the EYFS) into improvement planning with an appropriately paced implementation of the renewed Framework to tackle the issues that have arisen
- set out a calendar to tackle the issues highlighted.

In general, the vast majority of schools and settings are likely to be making extensive use of the renewed Framework at some stage during this academic year. The Framework is designed to support teachers and practitioners in raising achievement and there is, therefore, an urgency in ensuring that teachers and practitioners are fully confident in its use and that implementation is secure.

The renewed Framework for literacy and mathematics forms a significant development which builds upon the learning and development that has taken place since the original Frameworks for teaching literacy and mathematics were introduced in 1998 and 1999. Although there are good ideas and structures within the original Frameworks, the renewal marks an important step and brings new impetus and new structures that are a significant development rather than a repackaging of guidance that is already in place. Changes in the structure and content of objectives, learning and core guidance are significant and schools and settings are encouraged to understand the changes and to move towards implementation of the renewed Framework for literacy and mathematics rather than to rely upon the original Frameworks. Although there are links with the original Frameworks for teaching literacy and mathematics on the electronic version of the renewed Framework, these links are to help with the smooth transition for schools using one system as they move towards another.

# Six key areas that schools and settings are encouraged to consider

Six key areas will characterise the effective implementation of the Framework. These are:

- improving the teaching of early reading
- encouraging flexibility
- structuring learning
- raising expectations
- making more effective use of assessment
- broadening and strengthening pedagogy.

## Improving the teaching of early reading

The renewal of the Framework provides a unique opportunity to look again at how we can best support the teaching of literacy in order to secure the best learning for all children. In particular, the Rose Report provides the opportunity and the challenge for schools and settings to review their practice in the teaching of early reading. The report makes a number of recommendations for effective teaching of early reading and for the reconstruction of the National Literacy Strategy 'searchlights' model. These recommendations underpin the renewal of the literacy Framework. The electronic Framework for literacy provides both high-level guidance for the teaching of phonics and word recognition and detailed support for planning and teaching early reading.

The report advocates a systematic programme of high-quality phonic work, time limited and reinforced throughout the curriculum with careful assessment and monitoring of children's progress as they move from learning to read towards reading to learn, engaging with diverse texts for purpose and pleasure.

The recommendations relating to best practice in the teaching of phonics may be summarised as follows:

- greater attention should be paid to the development of children's speaking and listening skills
- high-quality, systematic phonic work should be taught discretely
- phonic work should be set within a broad and rich language curriculum that takes full account of developing the four independent strands of language – speaking, listening, reading and writing – and enlarging children's stock of words
- high-quality phonic work should be a priority within 'quality first' teaching to minimise the risk of children falling behind in reading.

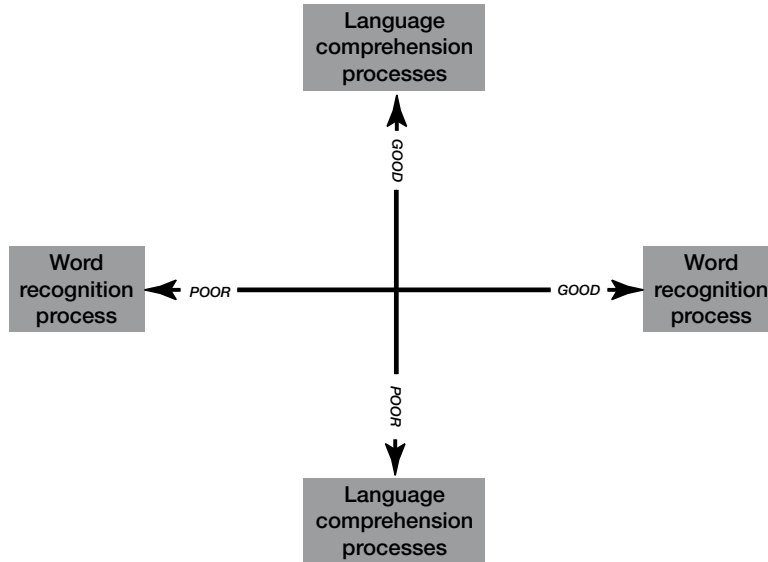
To be systematic, phonics teaching needs to be carefully planned, reinforcing and building on previous learning to secure children's progress. It needs to be taught discretely and daily and needs to be engaging and multisensory. High-quality phonics programmes need to be followed consistently and with 'fidelity to the programme' to secure the necessary pace and progression.

The report gives a definition of high-quality phonic work, based on a recommended synthetic approach, in which the key features are to teach beginner readers:

- grapheme–phoneme (letter–sound) correspondences (the alphabetic principle) in a clearly defined, incremental sequence
- to apply the highly important skill of blending (synthesising) phonemes in order, all through a word in order to read it
- to apply the skills of segmenting words into their constituent phonemes to spell

- that blending and segmenting are reversible processes.

The report makes clear the two dimensions of reading – ‘decoding’ and ‘comprehension’. These two dimensions are represented in a new conceptual framework – ‘the simple view of reading’ – as word recognition processes and language comprehension processes.



The new conceptual framework outlined in the report makes clear the important journey from ‘learning to read’ to ‘reading to learn, for pleasure and purpose’ – becoming a fluent reader with the skills to access, engage with and enjoy a wide range of texts. It emphasises that the process of phonics acquisition is time limited whereas the development of comprehension is a lifelong activity.

The renewed Framework for literacy provides high-level guidance and more detailed practical guidance material to help headteachers and leaders implement the Rose Report recommendations and to support teacher and practitioners in the teaching of phonics and early reading.

## Encouraging flexibility

The electronic version of the Framework promotes a view of planning in the EYFS which considers how all six areas of learning can link together to support the development of literacy and mathematics.

The National Literacy Strategy and National Numeracy Strategy introduced organisational structures that included carefully structured daily lessons with timed phases, for example the three-part daily mathematics lesson and the literacy hour. For Key Stage 1 and Key Stage 2, the Framework continues to promote the daily teaching of literacy and mathematics but with greater consideration of how to secure effective application of these skills across other subjects. Greater guidance on planning for progression through a longer sequence of lessons and consideration of a range of approaches to structuring learning within lessons are at the core of the Primary Framework. The literacy hour and the three-part daily mathematics lesson provide structures which have assisted many teachers and schools in their planning and organisation of literacy and mathematics lessons. However, where these models of planning are followed with undue rigidity, they can act as a constraint on using the most appropriate organisation and structure to promote and develop children’s learning. In *Excellence and enjoyment: learning and teaching in the primary years*, schools were encouraged to be flexible in their use of this default model. The renewed Framework reinforces this flexibility to ensure that the structure and organisation of the daily teaching of literacy and mathematics meet the needs of practitioners and children. In using the structure of the literacy and daily mathematics lesson in flexible ways, the following principles are suggested.

- The phases within lessons should support the learning intention of the lesson. The phases should introduce, develop and review the learning focus while maintaining a sharp beginning, coherence across the session and a clear conclusion.
- Children should know what they are learning and why, along with the extent of the progress they are making.
- While the teacher orchestrates the structure of learning, children should have the opportunity to enquire, to question and explore in order that teachers and practitioners can build children's knowledge and understanding.
- Timings of different parts of the lesson should fit the purposes of the intended focus for learning.
- While planning across terms and weeks is necessary to build in progression and to cover content, such planning will need to be adapted to meet the needs of children's learning in response to assessment and ongoing review.
- The importance of building on children's learning in the EYFS is recognised – and looking at learning across all six areas of learning provides the best foundation for children's future success.

There will be different sparks that ignite learning, making it vivid and real for different children. All children need teaching tailored to their needs – those with special educational needs (SEN), those who are gifted and talented, those learning English as an additional language (EAL), or those whose needs have not been attended to well will need their teachers to pay particular attention to tailoring teaching to meet these needs.

## Structuring learning

The daily literacy hour and mathematics lesson have been used by many teachers to provide children with daily structured lessons through Key Stages 1 and 2. The best teachers build on this and ensure that the learning is effectively structured over sequences of lessons as well as within lessons.

The electronic Framework promotes longer-term planning of teaching sequences that build learning over time, with the organisation of the year into 2-week, 3-week and 4-week units of work for each of literacy and mathematics, and a guide to medium-term planning that you can use to develop a sequence of teaching and learning that identifies objectives and cycles of review, teach, practise, apply and evaluate over each unit.

At all stages, learning can and does happen in a range of ways and in a variety of contexts. While there are many opportunities to make links between curriculum subjects, inspection evidence shows that this does not happen without careful planning by teachers about how to structure attention to potential links and without clear leadership on the importance such planning should take. For learning in literacy and mathematics to be secure, children need to understand the relevance of what they are learning and need to apply their learning in different contexts. Using and applying their literacy and mathematics knowledge and skills in other subjects and contexts helps reinforce confidence and understanding and is supported by evidence of the way in which children make best – and lasting – progress in the Early Years.

## Raising expectations

The renewal of the Framework is driven by the aim to ensure that every child succeeds within a culture of high expectations. This will include:

- ensuring that practitioners working with children in the EYFS recognise the importance of the interrelatedness of all areas of learning to underpin later progress in all areas, including literacy and mathematics

- providing key expectations for each year within the primary phase to drive the daily lessons in literacy and mathematics, providing a clear focus over time that will cause the teacher or practitioner to change plans if these aspects are not being learned successfully, and giving a clarity of expectations through to other lessons or sessions in the day
- making clearer to teachers that the progression in key aspects of literacy and mathematics, easing the process of tracking back or forward in identifying what children need to know next, is essential in securing inclusion for children working significantly below or above age-related expectations
- raising expectations in the revised learning objectives around the acquisition of phonic knowledge for early reading, spelling and sentence-level work
- smoothing and steepening the incline in expectations in mathematics across all years, particularly to inject more pace into Years 3 and 4 and to provide more opportunity for consolidation of learning in Years 5 and 6
- redefining 'pace' to be about learning rather than just momentum in lessons, which helps to motivate learners and accelerate coverage of objectives.

## Making more effective use of assessment

There are two main purposes of assessment, these being assessment of learning (also known as summative assessment) and assessment for learning (also known as formative assessment). The renewed Framework aims to cover both these important areas by integrating advice for teachers and practitioners on how to use both forms of assessment to support planning to identify the next steps in learning and monitoring the progress that children make. Assessment is about informed observation and effective questioning, which helps the teacher or practitioner note what children can do and what they need to do next. During the early stages of development of the renewed Framework, there have been many requests for clearer links between Framework objectives and assessment of children's progress using National Curriculum levels in Key Stages 1 and 2.

The electronic Framework has guidance on aspects of assessment for learning, much of which is linked directly with guidance on planning. Guidance is there to help teachers and practitioners:

- determine where to pitch teaching of specific aspects of the subject – particularly at the start of a unit of work
- assess the progress children are making during lessons and across a sequence of lessons through key questions and assessment ideas.

The National Strategies and QCA are working on further support for teachers and practitioners on more accurate and effective use of assessment to inform and direct teaching and learning in making periodic assessment of progress through the learning objectives against National Curriculum level descriptors and age-related expectations. This will be trialled in 2006–07 and made widely available in 2007.

## Broadening and strengthening pedagogy

The quality of teaching has greatly improved in recent years with increases in the percentage of teaching that Ofsted finds to be satisfactory or better in primary schools. Although the proportion of teaching that is good or better has similarly increased, Ofsted has still indicated that approximately a third of all teaching in literacy and in mathematics in primary schools is no better than satisfactory. Good teaching ensures progress in learning for all children and effective practitioners are able to draw on a wide-ranging teaching repertoire to meet the needs of all children.

Pedagogic approaches are influenced by research evidence about how children learn, the context in which the learning and teaching is to take place, and the purpose of the learning. The renewed

Framework promotes a range of pedagogic approaches, including direct, inductive, experiential, enquiry and problem-solving approaches as well as social or relationship approaches (such as role-play and simulation). Research shows that particular approaches are more effective in supporting particular forms of learning. The increased flexibility promoted through the renewed Framework aims to encourage teachers and practitioners in applying their teaching approach and pedagogy according to the needs of learners and the context of learning. The idea of 'fitness for purpose' in pedagogy is at the core of the renewed Framework. The chart below summarises the three main approaches used by most teachers and practitioners. Within each pedagogic approach, teachers and practitioners will draw on a range of teaching strategies, techniques and tools, including ICT-based resources.

Pedagogic approaches			
	Direct	Inductive	Exploratory
Purpose	To acquire new knowledge or skills.	To develop a concept or process.	To use, consolidate or refine skills and understanding.
Key features	A structured sequence, often beginning with whole-class work with modelling, demonstration or illustration. Typically, this is followed by individual or group work. The sequence often ends with whole-class review.	A structured set of directed steps. Children collect and sift information, then examine data. They construct categories, and generate and test hypotheses.	Testing a prediction or hypothesis based on the understanding of a concept. Children decide what information to collect, obtain the data and analyse it.
Examples	Developing communication skills, such as using different text types in writing; listening to argument; constructing sentences orally in French; in mathematics, drawing to scale; using a spreadsheet to model the impact of light intensity on plant growth.	Generating spelling rules. e.g. when to use <i>-sion</i> rather than <i>-tion</i> ; collecting visual and other information in order to understand the use of materials and processes to make a sculpture; assessing the usefulness of portraits as sources of historical information.	Exploring the best method of making a bridge from newspapers; exploring the likely causes of flooding in a particular area; exploring the waterproof properties of different materials.
Key questions	<ul style="list-style-type: none"> <li>• How could you...?</li> <li>• Why am I doing this?</li> </ul>	<ul style="list-style-type: none"> <li>• Can you group these?</li> <li>• Can you see any pattern?</li> </ul>	<ul style="list-style-type: none"> <li>• What might affect...?</li> <li>• What possible reasons are there for...?</li> </ul>

The increased flexibility promoted within the renewed Framework aims to encourage teachers and practitioners in applying their teaching approach and pedagogical choices according to the needs of learners and the context of learning. The structure of the three-part daily mathematics lesson and the literacy hour, which contain within them these key approaches and secure for every Key Stage 1 and Key Stage 2 child an entitlement to daily direct and structured teaching, still hold a key place within the overall design of a unit of work. The apportionment of time and attention to particular pedagogic approaches will vary according to the teacher's or practitioner's assessment of children's prior learning and the nature of the learning objective and intended learning outcomes, along with the position of the lesson or session within the unit or block of work. The focus of teaching and learning will follow distinct phases both within individual lessons or sessions and across these over time as a block or unit of work proceeds.

The literacy hour and three-part daily mathematics lessons have provided a useful structure for teachers and practitioners to help embrace pedagogic principles in providing a balance between the

direct, the inductive and the exploratory elements that underpin effective teaching. These structures have, for many, proved successful in ensuring that children are taught the knowledge and skills they need but also are provided with the opportunity to explore through group, guided and independent elements to secure greater understanding and to make sense of their newly acquired knowledge through its application.

An important element of the literacy hour and daily mathematics lesson has been the period of review, or plenary, which draws children together to review learning, to clarify misunderstandings and to plan the next steps in learning. The principles that underpin the pedagogy of the literacy hour and daily mathematics lesson still apply. However, the structuring of learning of a longer sequence of work, along with support for greater flexibility, will require teachers and practitioners to look afresh at how they structure both individual lessons and sequences of lessons to ensure that the elements of direct, inductive and exploratory approaches to teaching are appropriately planned according to the skills and knowledge to be taught, and are underpinned by a regular review of learning in order to refine the next steps and teaching approach. A balance between these three areas may be appropriate within a lesson or may be planned over a sequence of lessons. The teacher and practitioner will need to consider what children need to learn, how learning can be secured, and how these key elements are best deployed.

The electronic Framework gives further guidance on broadening and strengthening pedagogy and on the most effective strategies and approaches to support learning. The structure of the three-part daily mathematics lesson and the literacy hour still have a key place within the range of teaching strategies teachers and practitioners will need to use. However, teachers and practitioners will need to vary their use of this structure to reflect the specific context of sessions and the structure of the longer-term teaching sequence underpinning the development of learning through 2-week or 3-week units of work. The broadening of pedagogy is supported through the Framework by:

- creating a single coherent approach for children from 3 to 5, identical to and therefore fully consistent with the EYFS
- guidance on the application of literacy and mathematics beyond the daily literacy and mathematics lessons
- planning for application and links in learning
- planning for the inclusion of all learners and meeting the expectations of the statutory inclusion statement of 'Curriculum 2000'
- paying close attention to how speaking and listening, now incorporated in the renewed Framework, informs the whole curriculum – for example, speaking and listening form a key part of the Foundation Stage, and oral work is a crucial part of every mathematics lesson – and when and how extended dialogue between a practitioner and a child and within groups of children can be embedded into practice
- exploiting ICT both for teachers' and children's use.



# Improving learning and teaching

## The place of literacy and mathematics lessons

In general, children continue to need daily lessons for literacy and mathematics where they are taught the knowledge, skills and understanding set out in the National Curriculum. The guidance in the renewed Framework still places an emphasis on carefully planned, purposeful, well-directed teaching and learning. When the Frameworks were first published the context demanded that attention was given to the structure and organisation of the lesson. Now the challenge is about improving and refining what is in place.

As identified in the earlier section 'Six key areas that schools and settings are encouraged to consider', the literacy hour and the three-part mathematics lesson have been successful in structuring the pace of learning and planning for progression through Key Stages 1 and 2. However, overuse of this structure has, for some teachers, been seen to constrain learning. The literacy hour and daily mathematics lesson provide a structure for teaching in Key Stages 1 and 2 which we can adapt and revise, keeping what has worked while reorganising the features that may limit the learning. The original guidance provided an 'off-the-peg' structure for many teachers. This has now become more personalised or bespoke, and good teaching and learning retains a structure that is sufficiently flexible to meet the learning needs of all children in the context of the subject being taught.

The daily literacy and mathematics lesson may sometimes be planned as individual lessons. The renewed Framework promotes planning across a sequence of lessons that offer children continuity with a blend of approaches that sustain the challenge and maintain an interest in learning. The teaching and learning cycle that sees review, teach, practise, apply and evaluate as the process underpinning the structure of planning lies at the heart of the renewed Framework.

The cycle has assessment for learning within it and is sufficiently flexible to be implemented in a lesson or across a teaching sequence. The elements within the cycle may require different teaching approaches if they are to meet their intended purpose. All this has to be carefully planned over a teaching sequence to determine how the ebb and flow of learning is promoted and maintained. A three-part lesson may fit the cycle well when the purpose supports it. At other times greater flexibility may be required. However, for children, the lesson is still their unit of learning and a lesson needs a clear start and end so that they know what they are learning and recognise the progress that they have made.

## Literacy and mathematics across the curriculum

Making links between curriculum subjects and areas of learning deepens children's understanding by providing opportunities to reinforce and enhance learning. It does this in a number of ways, for example by:

- systematically planning opportunities for practising skills – skills such as skimming and scanning or analysing data, which are taught in the context of literacy or mathematics sessions, can be further developed through purposeful use in other areas
- providing real experiences, context and meaning for the development of core skills in literacy and mathematics
- assisting memory through providing opportunities for children to practise and use information in different contexts
- providing opportunities for application of knowledge in new contexts to involve children in higher-order thinking skills, such as reasoning and problem solving

- providing opportunities for learners to recognise and develop key aspects of learning, for example in looking for patterns and relationships, problem solving and reasoning
- building concepts through providing children with opportunities to meet the same or related information in different ways, adding to the richness of their experience.

## Including all children

For children working significantly **below** the level of their class or group, learning objectives related to the aspect on which the whole class is working should be chosen as much as possible. However, they should be right for each child at each stage of their learning and development. If, with appropriate access strategies and support, a child cannot work towards the same learning objective as the rest of the class, teachers may want to track back to an earlier objective. The structure and the new electronic format of the renewed Framework for literacy and mathematics support multi-level curriculum planning, and allow teachers to easily track back and forward through a progression strand to locate earlier and later learning objectives. It also makes direct links to a wealth of other useful materials which will help to plan teaching and children's learning.

Planning for individual children or groups of children based on informed observation and assessment for learning will be informed by knowledge of their priorities. For the majority of the time it will be appropriate for children to work on objectives that are similar and related to those for the whole class. However, at other times you will also have to consider whether the children have other priority needs that are central to their learning, for example a need to concentrate on some key skills.

Children who are working well above the overall level of their class or group will benefit from planning that may:

- add breadth (for example enrichment through a broader range of content, tasks and resources)
- increase depth (for example extension through complexity)
- accelerate the pace of learning by tracking forward to future objectives within or across key stages.

Children learning EAL must be supported to access curriculum content while also developing cognitive and academic language within whole-class, group and independent contexts. With the exception of children learning EAL who also have learning difficulties, it is critical to maintain a level of cognitive challenge consistent with that of the rest of the class. Children who are or have become conversationally fluent will continue to require explicit attention to the development of the academic language associated with the subject and of specific aspects within the subject. Planning should identify the language demands of the objectives and associated activities. Making sure that EAL learners know and can use the language demanded by the curriculum content of the unit or lesson then becomes an additional objective. To identify the language demands, teachers and practitioners will need to consider the language children will need to understand in order to access an activity. This will need to take account of the language children will need to be able to produce, either oral or written, to demonstrate success in achieving the learning intentions.

# Literacy

## Strands of objectives

A clearer structure for teaching literacy has been provided by simplifying the structure of the objectives, with the identification of 12 strands of learning giving a broad overview of the literacy curriculum in the primary phase. Learning objectives are aligned to the 12 strands, where appropriate, to demonstrate progression in each strand.

These strands reflect the four aspects of language identified as key in the Rose Report and link directly to the Early Learning Goals and aspects of English in the National Curriculum. These aspects are: speaking and listening, reading and writing. The objectives for each are grouped under two main headings:

- Speak and listen for a wide range of purposes in different contexts
- Read and write for a range of purposes on paper and on screen.

There are four strands in speaking and listening, which build on communication, language and literacy in the EYFS, reflect the detail of the National Curriculum for English, and relate closely to the QCA/ Primary National Strategy *Speaking, listening and learning* materials (0623-2003G). The incorporation of these strands into the revised Framework makes explicit the centrality of speaking and listening not only as a communicative skill in its own right but also as the bedrock of literacy development. It also reflects the key findings of the Rose Report of the importance of speaking and listening in the development of early reading and writing skills.

There are three strands in reading. These strands reflect the new conceptual framework for reading described in the Rose Report, that of the 'simple view of reading' which makes clear distinctions between word recognition and language comprehension processes. The revisions emphasise the importance of reading independently and reading for pleasure. In writing there are five strands and particular attention has been paid to the development of independent creative writers able to make informed choices about form, audience and purpose.

The organisation of the objectives into these 12 strands also supports alignment with the assessment focuses for reading and writing used in National Curriculum assessments. Covering these objectives will allow children to reach the Early Learning Goals for communication, language and literacy and the appropriate National Curriculum levels at Key Stages 1 and 2. The later objectives will be delivered through the full range of texts described in the National Curriculum for English.

The 12 strands are as follows.

## Speak and listen for a wide range of purposes in different contexts

### 1. Speaking

- Speak competently and creatively for different purposes and audiences, reflecting on impact and response
- Explore, develop and sustain ideas through talk

### 2. Listening and responding

- Understand, recall and respond to speakers' implicit and explicit meanings
- Explain and comment on speakers' use of language, including vocabulary, grammar and non-verbal features

### **3. Group discussion and interaction**

- Take different roles in groups to develop thinking and complete tasks
- Participate in conversations, making appropriate contributions building on others' suggestions and responses

### **4. Drama**

- Use dramatic techniques, including work in role to explore ideas and texts
- Create, share and evaluate ideas and understanding through drama

## **Read and write for a range of purposes on paper and on screen**

### **5. Word recognition: decoding (reading) and encoding (spelling)**

- Read fluently and automatically by using phonic knowledge of grapheme–phoneme correspondences and the skills of blending as their prime approach for decoding unfamiliar words, and thereby:
  - build up a store of words that are instantly recognised and understood on sight
  - segment words into their constituent phonemes and understand that spelling is the reverse of blending phonemes into words for reading

### **6. Word structure and spelling**

- Learn that segmenting words into their constituent phonemes for spelling is the reverse of blending phonemes into words for reading
- Spell words accurately by combining the use of grapheme–phoneme correspondence knowledge as the prime approach, and also morphological knowledge and etymological information
- Use a range of approaches to learn and spell irregular words

### **7. Understanding and interpreting texts**

- Retrieve, select and describe information, events or ideas
- Deduce, infer and interpret information, events or ideas
- Use syntax, context, word structures and origins to develop their understanding of word meanings
- Identify and comment on the structure and organisation of texts
- Explain and comment on writers' use of language, including vocabulary, grammatical and literary features

### **8. Engaging with and responding to texts**

- Read independently for purpose, pleasure and learning
- Respond imaginatively, using different strategies to engage with texts
- Evaluate writers' purposes and viewpoints, and the overall effect of the text on the reader

### **9. Creating and shaping texts**

- Write independently and creatively for purpose, pleasure and learning
- Use and adapt a range of forms, suited to different purposes and readers
- Make stylistic choices, including vocabulary, literary features and viewpoints or voice
- Use structural and presentational features for meaning and impact

### **10. Text structure and organisation**

- Organise ideas into a coherent structure including layout, sections and paragraphs
- Write cohesive paragraphs linking sentences within and between them

## 11. Sentence structure and punctuation

- Vary and adapt sentence structure for meaning and effect
- Use a range of punctuation correctly to support meaning and emphasis
- Convey meaning through grammatically accurate and correctly punctuated sentences

## 12. Presentation

- Develop a clear and fluent joined handwriting style
- Use keyboard skills and ICT tools confidently to compose and present work.

## Speaking and listening

Language is an integral part of most learning and oral language in particular has a key role in teaching and learning. A recurring message from the research into spoken language is that talk is fundamental to children's development and learning and has a central role to play in developing their knowledge and understanding. Speaking and listening play an important role in children's social, emotional and cognitive development. Excellent teaching of speaking and listening will therefore enhance children's learning and raise standards further.

In Early Years, the key aspects of language development are covered within the communication, language and literacy area of learning, and within the National Curriculum there are separate programmes of study for speaking and listening, reading and writing. Each has its own particular features yet the areas are inextricably linked. Clearly, some teaching about language is relevant to reading and writing but the curriculum for speaking and listening must also give due weight to the distinctiveness of talk. There are features of oral language that do not occur in the written form and these need to be explicitly addressed in all learning activities both within and outside the classroom environment.

Speaking and listening, reading and writing are not only interdependent but mutually enhancing. Teaching and learning about language and how it is used in the different modes will develop all four aspects. The objectives for speaking and listening complement the objectives for reading and writing. The speaking and listening objectives reinforce and extend children's developing reading and writing skills. Most children try out ideas in talk long before they are able to pin them down in writing.

Phonological skills (particularly phonemic awareness) underpin the development of word decoding skills in early reading. However, wider language skills beyond phonology are required to understand the meanings of words and sentences, to integrate these meanings across texts and to make inferences that go beyond the printed words. These wider language skills include vocabulary knowledge, grammatical skills and pragmatic abilities.

Speaking and listening can help children to consider how effectively a particular text works and how it could be improved. It helps children to organise and rehearse ideas in advance of putting them on paper. All areas of the curriculum offer distinctive opportunities for developing children's speaking and listening. Effective speaking and listening similarly offers opportunities to enhance the subject being taught through explaining and justifying choices, recognising alternative viewpoints and clarifying ideas. Spoken language can enhance thinking and learning: thoughts are not merely expressed in words but come into existence through them. Thinking aloud allows children to go beyond the here and now to think in abstractions and plan in the future. Talk is the underlying key factor in the development of literacy as well as a central feature of any successful teaching and learning.

Given the significance of speaking and listening for children's learning and overall language development, it is important to allow adequate curriculum time for it to be explicitly taught and to identify places in the timetable where children can revisit, apply and extend the speaking and listening skills which they have been explicitly taught.

## Early reading

The renewed Framework for literacy provides a wide range of materials to help schools and settings implement the recommendations of the Rose Report into the teaching of early reading. The key recommendations of that report are set out above in the section 'Six key areas that schools and settings are encouraged to consider'. These recommendations underpin the renewal of the literacy Framework. The electronic Framework provides both high-level guidance for the teaching of phonics and word recognition and detailed support for planning and teaching early reading.

The Framework makes clear the distinction between the two dimensions identified in the new conceptual framework (the 'simple view of reading') by grouping learning objectives related to word recognition under one strand. As the report makes clear, speaking and listening, while also strands in their own right, are vital to early reading development and integral to the teaching of phonics knowledge and application. The guidance in the renewed Framework supports teachers in integrating speaking and listening into the teaching of early reading and writing.

The renewed Framework offers high-level guidance through the learning objectives themselves and in five key papers:

- 'Phonics and early reading: an overview', which explains what is meant by high-quality phonics teaching
- 'The new conceptual framework for teaching reading – the simple view of reading', which explains the research basis for the recommendations in the report and how the National Literacy Strategy Searchlights model can be reconstructed to map into the new conceptual framework.
- Developing reading comprehension
- Guidance for practitioners and teachers on progression and pace in the teaching of phonics
- Guidance for practitioners on planning the daily discrete teaching session for phonics

These papers can be found in *Primary Framework for literacy and mathematics: supporting guidance for headteachers and chairs of governors* (02009-2006BKT-EN) and in the electronic Framework at [www.standards.dfes.gov.uk/primaryFramework](http://www.standards.dfes.gov.uk/primaryFramework)

As well as this high-level guidance, the renewed Framework offers more detailed practical guidance material to support headteachers and leaders in implementing the recommendations of the Rose Report and practitioners in teaching phonics and early reading. There is support for planning the teaching of early reading, within and across a series of teaching sessions, with explicit links across the four strands of speaking, listening, reading and writing. These materials, which include progression maps, audit tools and planning exemplars to support high-quality teaching of phonics work, are provided in the electronic Framework, accessed through both the Foundation Stage and the literacy sections of the electronic Framework.

While being very clear on the importance of phonics as the prime approach to teaching word recognition for the vast majority of children, including those with EAL, the report also acknowledges the need for practitioners to use their professional judgement to ensure that their teaching of phonics meets the needs of all children. It is important to remember that for a very small minority of children, for example those with some types of neuro-developmental disorders and others with particular kinds of SEN, there are considerable obstacles to learning to read and write. Leading edge interventions and training will continue to be exemplified in guidance to show how the best provision and practice are matched to different types of SEN.

## Good literacy teaching

Good literacy teaching is lively, engaging and involves a carefully planned blend of approaches that direct children's learning. Children are challenged to think. The teacher provides children with good support but requires independence as and when appropriate. The balance between adult-led and child-initiated activity is an important element of planning within the EYFS but similarly throughout the primary phase. Opportunities should be provided for children to initiate their own learning and to use and apply the literacy skills they have been taught.

In good literacy teaching the pitch and pace of the work is sensitive to the rate at which the children learn while ensuring that expectations are kept high and progress is made by all children. Although the learning focus may give greater weight to learning in a particular strand or area of literacy, the strong interdependence between speaking, listening, reading and writing should underpin planning and provision for learning. The literacy skills and knowledge that children are expected to learn are clearly defined and the teacher has mapped out how to lead the children to the intended learning. Children know that they can discuss and seek help as and when they need to. They like to be challenged and enjoy the opportunities to practise and apply their learning. Over time the children identify their attainment and recognise the progress they have made. They support one another in group work and are happy to share their ideas and to explain their reasoning and methods. Children who need more support than others are identified quickly and receive early intervention to help them maintain their progress.

Leading children's learning requires a broad repertoire of teaching and organisational approaches. There are lessons where the emphasis is on technique and the teaching is quite directive: there are lessons where the directing is less evident and teachers use carefully chosen activities and well-directed questioning. Good literacy teaching requires a good knowledge of the subject, an understanding of the progression in the curriculum being taught and recognition that some teaching approaches are better suited to promote particular learning and outcomes.

## Planning

The electronic Framework includes some new and interactive materials to support planning for progression in learning. It includes:

- suggested long-term plans, that is the organisation of the year into blocks of 2-week, 3-week and 4-week units of work
- a guide to medium-term planning that can be used to develop a sequence of teaching and learning that identifies objectives and cycles of review, teach, practise, apply and evaluate over the unit
- examples of activities and resources that can be adapted and amended and can be used to build specific units of work
- guidance on assessment to determine where to pitch the unit and the progress children are making over the unit and to review the extent to which children have achieved what was intended.

It is for teachers and practitioners to decide to what extent this guidance is used. It should be particularly useful for teachers new to a year group or wanting support with specific aspects of literacy teaching.

The exemplified long-term plan in the renewed Framework starts by clustering objectives in the Framework into the three major themes – narrative (and plays/playscripts), non-fiction and poetry. Each of these themes forms a 'block' in the medium-term planning.

<b>Narrative</b>	<b>Non-fiction</b>	<b>Poetry</b>
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Each of these blocks has then been divided into a number of units. Each unit is made up of a cluster of related objectives. Most objectives appear in more than one unit. In the Year 3 example below, an approximate number of weeks that could be spent on each unit has been identified to guide practitioners on the time allocation.

<b>Narrative block</b>	<b>Unit 1</b> Stories with familiar settings (3 weeks)	<b>Unit 2</b> Dialogue and plays (4 weeks)	<b>Unit 3</b> Myths, legends, fables, traditional tales (4 weeks)	<b>Unit 4</b> Adventure and mystery (4 weeks)	<b>Unit 5</b> Authors and letters (3 weeks)
<b>Non-fiction block</b>	<b>Unit 1</b> Reports (4 weeks)	<b>Unit 2</b> Instructions (3–4 weeks)	<b>Unit 3</b> Information texts (4 weeks)		
<b>Poetry block</b>	<b>Unit 1</b>  (4 weeks, which could be spread out)				

The units as exemplified above have been constructed to ensure progression across the year. However, schools may wish to adapt and amend this exemplified material to secure the best possible approach to teaching literacy in their specific contexts.

In this exemplification of planning, the units within each block are progressive in terms of expectations for learning and should therefore be taught in numerical order. If schools use this model of planning but adapt the order of units to meet other curriculum needs, care must be taken to maintain the progression in learning evident within each unit.

Literacy should be at the heart of curriculum planning so that the subject matter from other curriculum areas is available as content or stimulus for speaking, listening, reading and writing. Equally, skills acquired in the literacy lesson should be applied during the rest of the school day. For this reason the literacy units can be distributed in different ways across the year, so that schools can make effective links between the literacy units and the rest of the curriculum. However, because schools can choose how to distribute the units across a year, a linear teaching and learning progression through all the units will need to be decided in order to plan for progression in the direct teaching of word skills within reading and writing (word recognition and spelling).

The units of work in each block take two to four weeks to teach. This allows for sufficient time for responding to texts within reading, covering speaking and listening objectives, oral composition, writing and constructing multimodal texts.

## Mixed-age classes

Planning for mixed-age classes involves not only careful analysis of where children are in their literacy learning to support direct literacy teaching but also to manage the application and practice of literacy skills within the context of whole-curriculum planning. The organisation of literacy objectives under strands of progression is there to support teachers in identifying where children are in their current performance and attainment in literacy and to help plan for progression. The ability to use the progression of objectives to move back and forward through the electronic Framework to support planning and teaching that meets the needs for all children in the class will support the process of planning for mixed-age classes.

Further guidance and exemplification of planning for mixed-age classes will be available towards the end of the autumn term 2006.



# Core learning in literacy by year

# Core learning in literacy by year

## Foundation Stage

### Most children learn to:

#### 1. Speaking

Enjoy listening to and using spoken and written language and readily turn to it in play and learning

Use talk to organise, sequence and clarify thinking, ideas, feelings and events

Use language to imagine and recreate roles and experiences

Speak clearly and audibly with confidence and control and show awareness of the listener

Extend their vocabulary, exploring the meanings and sounds of new words

#### 2. Listening and responding

**Listen with enjoyment and respond to stories, songs and other music, rhymes and poems and make up their own stories, songs, rhymes and poems**

**Sustain attentive listening, responding to what they have heard by relevant comments, questions or actions**

**Extend their vocabulary, exploring the meanings and sounds of new words**

#### 3. Group discussion and interaction

**Interact with others, negotiating plans and activities and taking turns in conversation**

**Use talk to organise, sequence and clarify thinking, ideas, feelings and events**

#### 4. Drama

**Use language to imagine and recreate roles and experiences**

#### 5. Word recognition: decoding (reading) and encoding (spelling)

**Explore and experiment with sounds, words and texts**

**Link sounds to letters, naming and sounding the letters of the alphabet**

*Recognise letter shapes and say a sound for each*

**Use a pencil and hold it effectively to form recognisable letters, most of which are formed correctly**

**Hear and say sounds in words in the order in which they occur<sup>1</sup>**

Read simple words by sounding out and blending the phonemes all through the word from left to right

*Children move from reading simple consonant–vowel–consonant (CVC) words such as ‘cat’ and ‘bus’ to longer CCVC words such as ‘clap’ and ‘stop’, and CVCC words such as ‘fast’ and ‘milk’*

Recognise common digraphs

Read some high frequency words

**Use phonic knowledge to write simple regular words and make phonetically plausible attempts at more complex words**

**Read a range of familiar and common words and simple sentences independently**

Read texts compatible with their phonic knowledge and skills

Read and write one grapheme for each of the 44 phonemes

#### 6. Word structure and spelling

**Use phonic knowledge to write simple regular words and make phonetically plausible attempts at more complex words**

**Foundation Stage objectives in bold refer to the Early Learning Goals.**

Throughout this document, the specific objectives identified for the Foundation Stage are dependent upon the outcomes of the consultation on the EYFS.

<sup>1</sup> The wording of this objective may change depending upon the outcomes of the consultation on changes to the Early Learning Goals pending parliamentary approval.

## Most children learn to:

7. Understanding and interpreting texts	8. Engaging with and responding to texts	9. Creating and shaping texts	10. Text structure and organisation	11. Sentence structure and punctuation	12. Presentation
<p>Know that print carries meaning and, in English, is read from left to right and top to bottom</p> <p>Extend their vocabulary, exploring the meanings and sounds of new words</p> <p>Show an understanding of the elements of stories, such as main character, sequence of events, and openings, and how information can be found in non-fiction texts to answer questions about where, who, why and how</p> <p>Retell narratives in the correct sequence, drawing on the language patterns of stories</p>	<p>Listen with enjoyment to stories, songs, rhymes and poems, sustain attentive listening and respond with relevant comments, questions or actions</p> <p>Show an understanding of the elements of stories, such as main character, sequence of events, and openings and how information can be found in non-fiction texts to answer questions about where, who, why and how</p> <p>Use language to imagine and recreate roles and experiences</p>	<p>Attempt writing for various purposes, using features of different forms such as lists, stories and instructions</p>	<p>Attempt writing for various purposes, using features of different forms such as lists, stories and instructions</p>	<p>Write their own names and other things such as labels and captions and begin to form simple sentences sometimes using punctuation</p>	<p>Use a pencil and hold it effectively to form recognisable letters, most of which are correctly formed</p>

# Core learning in literacy by year

## Year 1

### Most children learn to:

1. Speaking	2. Listening and responding	3. Group discussion and interaction	4. Drama	5. Word recognition: decoding (reading) and encoding (spelling)	6. Word structure and spelling
Tell stories and describe incidents from their own experience in an audible voice	Listen with sustained concentration, building new stores of words in different contexts	Take turns to speak, listen to others' suggestions and talk about what they are going to do	Explore familiar themes and characters through improvisation and role-play	Recognise and use alternative ways of pronouncing the graphemes already taught, for example, that the grapheme 'g' is pronounced differently in 'get' and 'gem'; the grapheme 'ow' is pronounced differently in 'how' and 'show'	Spell new words using phonics as the prime approach
Retell stories, ordering events using story language	Listen to and follow instructions accurately, asking for help and clarification if necessary	Ask and answer questions, make relevant contributions, offer suggestions and take turns	Act out their own and well-known stories, using voices for characters	Recognise and use alternative ways of spelling the phonemes already taught, for example that the /ae/ sound can be spelt with 'ai', 'ay' or 'a-e'; that the /ee/ sound can also be spelt as 'ea' and 'e'; and begin to know which words contain which spelling alternatives	Segment sounds into their constituent phonemes in order to spell them correctly <i>Children move from spelling simple CVC words to longer words that include common diagraphs and adjacent consonants such as 'brush', 'crunch'</i>
Interpret a text by reading aloud with some variety in pace and emphasis	Listen to tapes or video and express views about how a story or information has been presented	Explain their views to others in a small group, decide how to report the group's views to the class	Discuss why they like a performance	Identify the constituent parts of two-syllable and three-syllable words to support the application of phonic knowledge and skills	Recognise and use alternative ways of spelling the graphemes already taught, for example that the /ae/ sound can be spelt with 'ai', 'ay' or 'a-e'; that the /ee/ sound can also be spelt as 'ea' and 'e'; and begin to know which words contain which spelling alternatives
Experiment with and build new stores of words to communicate in different contexts				Recognise automatically an increasing number of familiar high frequency words	
				Apply phonic knowledge and skills as the prime approach to reading and spelling unfamiliar words that are not completely decodable	
				Read more challenging texts which can be decoded using their acquired phonic knowledge and skills, along with automatic recognition of high frequency words	Use knowledge of common inflections in spelling, such as plurals, -ly, -er
				Read and spell phonically decodable two-syllable and three-syllable words	Read and spell phonically decodable two-syllable and three-syllable words

Foundation Stage objectives in bold refer to the Early Learning Goals.

Throughout this document, the specific objectives identified for the Foundation Stage are dependent upon the outcomes of the consultation on the EYFS.

## Most children learn to:

7. Understanding and interpreting texts	8. Engaging with and responding to texts	9. Creating and shaping texts	10. Text structure and organisation	11. Sentence structure and punctuation	12. Presentation
Identify the main events and characters in stories, and find specific information in simple texts	Select books for personal reading and give reasons for choices	Independently choose what to write about, plan and follow it through	Write chronological and non-chronological texts using simple structures	Compose and write simple sentences independently to communicate meaning	Write most letters, correctly formed and orientated, using a comfortable and efficient pencil grip
Use syntax and context when reading for meaning	Visualise and comment on events, characters and ideas, making imaginative links to their own experiences	Use key features of narrative in their own writing	Group written sentences together in chunks of meaning or subject	Use capital letters and full stops when punctuating simple sentences	Write with spaces between words accurately
Make predictions showing an understanding of ideas, events and characters	Distinguish fiction and non-fiction texts and the different purposes for reading them	Convey information and ideas in simple non-narrative forms	Find and use new and interesting words and phrases, including story language		Use the space bar and keyboard to type their name and simple texts
Recognise the main elements that shape different texts					
Explore the effect of patterns of language and repeated words and phrases		Create short simple texts on paper and on screen that combine words with images (and sounds)			

# Core learning in literacy by year

## Year 2

### Most children learn to:

#### 1. Speaking

Speak with clarity and use appropriate intonation when reading and reciting texts

Tell real and imagined stories using the conventions of familiar story language

Explain ideas and processes using imaginative and adventurous vocabulary and non-verbal gestures to support communication

#### 2. Listening and responding

Listen to others in class, ask relevant questions and follow instructions

Listen to talk by an adult, remember some specific points and identify what they have learned

Respond to presentations by describing characters, repeating some highlight and commenting constructively

#### 3. Group discussion and interaction

Ensure that everyone contributes, allocate tasks, and consider alternatives and reach agreement

Work effectively in groups by ensuring that each group member takes a turn challenging, supporting and moving on

Listen to each other's views and preferences, agree the next steps to take and identify contributions by each group member

#### 4. Drama

Adopt appropriate roles in small or large groups and consider alternative courses of action

Present part of traditional stories, their own stories or work drawn from different parts of the curriculum for members of their own class

Consider how mood and atmosphere are created in live or recorded performance

#### 5. Word recognition: decoding (reading) and encoding (spelling)

Read independently and with increasing fluency longer and less familiar texts

Spell with increasing accuracy and confidence, drawing on word recognition and knowledge of word structure, and spelling patterns

Know how to tackle unfamiliar words that are not completely decodable

Read and spell less common alternative graphemes including trigraphs

Read high and medium frequency words independently and automatically

#### 6. Word structure and spelling

Spell with increasing accuracy and confidence, drawing on word recognition and knowledge of word structure, and spelling patterns including common inflections and use of double letters

Read and spell less common alternative graphemes including trigraphs

Foundation Stage objectives in bold refer to the Early Learning Goals.

Throughout this document, the specific objectives identified for the Foundation Stage are dependent upon the outcomes of the consultation on the EYFS.

## Most children learn to:

7. Understanding and interpreting texts	8. Engaging with and responding to texts	9. Creating and shaping texts	10. Text structure and organisation	11. Sentence structure and punctuation	12. Presentation
<p>Draw together ideas and information from across a whole text, using simple signposts in the text</p> <p>Give some reasons why things happen or characters change</p> <p>Explain organisational features of texts, including alphabetical order, layout, diagrams, captions, hyperlinks and bullet points</p> <p>Use syntax and context to build their store of vocabulary when reading for meaning</p> <p>Explore how particular words are used, including words and expressions with similar meanings</p>	<p>Read whole books on their own, choosing and justifying selections</p> <p>Engage with books through exploring and enacting interpretations</p> <p>Explain their reactions to texts, commenting on important aspects</p>	<p>Draw on knowledge and experience of texts in deciding and planning what and how to write</p> <p>Sustain form in narrative, including use of person and time</p> <p>Maintain consistency in non-narrative, including purpose and tense</p> <p>Make adventurous word and language choices appropriate to the style and purpose of the text</p> <p>Select from different presentational features to suit particular writing purposes on paper and on screen</p>	<p>Use planning to establish clear sections for writing</p> <p>Use appropriate language to make sections hang together</p>	<p>Write simple and compound sentences and begin to use subordination in relation to time and reason</p> <p>Compose sentences using tense consistently (present and past)</p> <p>Use question marks, and use commas to separate items in a list</p>	<p>Write legibly, using upper and lower case letters appropriately within words, and observing correct spacing within and between words</p> <p>Form and use the four basic handwriting joins</p> <p>Wordprocess short narrative and non-narrative texts</p>

# Core learning in literacy by year

## Year 3

### Most children learn to:

1. Speaking	2. Listening and responding	3. Group discussion and interaction	4. Drama	5. Word recognition: decoding (reading) and encoding (spelling)	6. Word structure and spelling
<p>Choose and prepare poems or stories for performance, identifying appropriate expression, tone, volume and use of voices and other sounds</p> <p>Explain process or present information, ensuring that items are clearly sequenced, relevant details are included and accounts are ended effectively</p> <p>Sustain conversation, explain or give reasons for their views or choices</p> <p>Develop and use specific vocabulary in different contexts</p>	<p>Follow up others' points and show whether they agree or disagree in whole-class discussion</p> <p>Identify the presentational features used to communicate the main points in a broadcast</p> <p>Identify key sections of an informative broadcast, noting how the language used signals changes or transitions in focus</p>	<p>Use talk to organise roles and action</p> <p>Actively include and respond to all members of the group</p> <p>Use the language of possibility to investigate and reflect on feelings, behaviour or relationships</p>	<p>Present events and characters through dialogue to engage the interest of an audience</p> <p>Use some drama strategies to explore stories or issues</p> <p>Identify and discuss qualities of others' performances, including gesture, action and costume</p>	<p><b>Note</b> Year 3 is a significant year for moving the emphasis on teaching from word recognition to language comprehension. <i>The Rose Report: Independent review of the teaching of early reading (2006)</i> makes clear that the two dimensions of reading – word recognition processes and language comprehension processes – are both necessary to achieve fluent reading. However, the balance between word recognition and language comprehension should change as children acquire secure and automatic decoding skills.</p> <p>For this reason, there is no content provided for strand 5 after Year 2 and the heading itself is removed after this reference for Year 3.</p> <p>Children working significantly above or below age-related expectations will need differentiated support, which may include tracking forward or back in terms of learning objectives. EAL learners should be expected to work within the overall expectations for their year group, and where this is not the case should be enabled to reach age-related expectations as quickly as possible. Some newly arrived learners of EAL may need to undertake time limited work based on objectives for decoding/encoding in addition to overall language development work.</p>	<p>Spell high and medium frequency words</p> <p>Recognise a range of prefixes and suffixes, understanding how they modify meaning and spelling, and how they assist in decoding long complex words</p> <p>Spell unfamiliar words using known conventions including grapheme–phoneme correspondences and morphological rules</p>

Foundation Stage objectives in bold refer to the Early Learning Goals.

Throughout this document, the specific objectives identified for the Foundation Stage are dependent upon the outcomes of the consultation on the EYFS.



## Most children learn to:

7. Understanding and interpreting texts	8. Engaging with and responding to texts	9. Creating and shaping texts	10. Text structure and organisation	11. Sentence structure and punctuation	12. Presentation
<p>Identify and make notes of the main points of section(s) of text</p> <p>Infer characters' feelings in fiction and consequences in logical explanations</p> <p>Identify how different texts are organised, including reference texts, magazines and leaflets, on paper and on screen</p> <p>Use syntax, context and word structure to build their store of vocabulary as they read for meaning</p> <p>Explore how different texts appeal to readers using varied sentence structures and descriptive language</p>	<p>Share and compare reasons for reading preferences, extending the range of books read</p> <p>Empathise with characters and debate moral dilemmas portrayed in texts</p> <p>Identify features that writers use to provoke readers' reactions</p>	<p>Make decisions about form and purpose, identify success criteria and use them to evaluate their writing</p> <p>Use beginning, middle and end to write narratives in which events are sequenced logically and conflicts resolved</p> <p>Write non-narrative texts using structures of different text-types</p> <p>Select and use a range of technical and descriptive vocabulary</p> <p>Use layout, format, graphics and illustrations for different purposes</p>	<p>Signal sequence, place and time to give coherence</p> <p>Group related material into paragraphs</p>	<p>Show relationships of time, reason and cause through subordination and connectives</p> <p>Compose sentences using adjectives, verbs and nouns for precision, clarity and impact</p> <p>Clarify meaning through the use of exclamation marks and speech marks</p>	<p>Write with consistency in the size and proportion of letters and spacing within and between words, using the correct formation of handwriting joins</p> <p>Develop accuracy and speed when using keyboard skills to type, edit and redraft</p>

# Core learning in literacy by year

## Year 4

### Most children learn to:

#### 1. Speaking

Offer reasons and evidence for their views, considering alternative opinions

Respond appropriately to the contributions of others in the light of differing viewpoints

Tell stories effectively and convey detailed information coherently for listeners

Use and reflect on some ground rules for sustaining talk and interactions

#### 2. Listening and responding

Listen to a speaker, make notes on the talk and use notes to develop a role-play

Compare the different contributions of music, words and images in short extracts from TV programmes

Identify how talk varies with age, familiarity, gender and purpose

#### 3. Group discussion and interaction

Take different roles in groups and use the language appropriate to them, including the roles of leader, reporter, scribe and mentor

Use time, resources and group members efficiently by distributing tasks, checking progress and making back-up plans

Identify the main points of each speaker, compare their arguments and how they are presented

#### 4. Drama

Create roles showing how behaviour can be interpreted from different viewpoints

Develop scripts based on improvisation

Comment constructively on plays and performances, discussing effects and how they are achieved

#### 6. Word structure and spelling

Use knowledge of phonics, morphology and etymology to spell new and unfamiliar words

Distinguish the spelling and meaning of common homophones

Know and apply common spelling rules

Develop a range of personal strategies for learning new and irregular words

#### 7. Understanding and interpreting texts

Identify and summarise evidence from a text to support a hypothesis

Deduce characters' reasons for behaviour from their actions and explain how ideas are developed in non-fiction texts

Use knowledge of different organisational features of texts to find information effectively

Use knowledge of word structures and origins to develop their understanding of word meanings

Explain how writers use figurative and expressive language to create images and atmosphere

Foundation Stage objectives in bold refer to the Early Learning Goals.

Throughout this document, the specific objectives identified for the Foundation Stage are dependent upon the outcomes of the consultation on the EYFS.

## Most children learn to:

### 8. Engaging with and responding to texts

Read extensively favourite authors or genres and experiment with other types of text

Interrogate texts to deepen and clarify understanding and response

Explore why and how writers write, including through face-to-face and online contact with authors

### 9. Creating and shaping texts

Develop and refine ideas in writing using planning and problem-solving strategies

Use settings and characterisation to engage readers' interest

Summarise and shape material and ideas from different sources to write convincing and informative non-narrative texts

Show imagination through the language used to create emphasis, humour, atmosphere or suspense

Choose and combine words, images and other features for particular effects

### 10. Text structure and organisation

Organise text into paragraphs to distinguish between different information, events or processes

Use adverbs and conjunctions to establish cohesion within paragraphs

### 11. Sentence structure and punctuation

Clarify meaning and point of view by using varied sentence structure (phrases, clauses and adverbials)

Use commas to mark clauses, and use the apostrophe for possession

### 12. Presentation

Write consistently with neat, legible and joined handwriting

Use wordprocessing packages to present written work and continue to increase speed and accuracy in typing

# Core learning in literacy by year

## Year 5

### Most children learn to:

#### 1. Speaking

Tell a story using notes designed to cue techniques, such as repetition, recap and humour

Present a spoken argument, sequencing points logically, defending views with evidence and making use of persuasive language

Use and explore different question types and different ways words are used, including in formal and informal contexts

#### 2. Listening and responding

Identify different question types and evaluate their impact on the audience

Identify some aspects of talk that vary between formal and informal occasions

Analyse the use of persuasive language

#### 3. Group discussion and interaction

Plan and manage a group task over time using different levels of planning

Understand different ways to take the lead and support others in groups

Understand the process of decision making

#### 4. Drama

Reflect on how working in role helps to explore complex issues

Perform a scripted scene making use of dramatic conventions

Use and recognise the impact of theatrical effects in drama

#### 6. Word structure and spelling

Spell words containing unstressed vowels

Know and use less common prefixes and suffixes such as *im-*, *ir-*, *-cian*

Group and classify words according to their spelling patterns and their meanings

#### 7. Understanding and interpreting texts

Make notes on and use evidence from across a text to explain events or ideas

Infer writers' perspectives from what is written and from what is implied

Compare different types of narrative and information texts and identify how they are structured

Distinguish between everyday use of words and their subject-specific use

Explore how writers use language for comic and dramatic effects

Foundation Stage objectives in bold refer to the Early Learning Goals.

Throughout this document, the specific objectives identified for the Foundation Stage are dependent upon the outcomes of the consultation on the EYFS.

## Most children learn to:

### 8. Engaging with and responding to texts

Reflect on reading habits and preferences and plan personal reading goals

Compare the usefulness of techniques such as visualisation, prediction and empathy in exploring the meaning of texts

Compare how a common theme is presented in poetry, prose and other media

### 9. Creating and shaping texts

Reflect independently and critically on their own writing and edit and improve it

Experiment with different narrative forms and styles to write their own stories

Adapt non-narrative forms and styles to write fiction or factual texts, including poems

Vary the pace and develop the viewpoint through the use of direct and reported speech, portrayal of action and selection of detail

Create multi-layered texts, including use of hyperlinks and linked web pages

### 10. Text structure and organisation

Experiment with the order of sections and paragraphs to achieve different effects

Change the order of material within a paragraph, moving the topic sentence

### 11. Sentence structure and punctuation

Adapt sentence construction to different text-types, purposes and readers

Punctuate sentences accurately, including using speech marks and apostrophes

### 12. Presentation

Adapt handwriting for specific purposes, for example printing, use of italics

Use a range of ICT programs to present texts, making informed choices about which electronic tools to use for different purposes

# Core learning in literacy by year

## Year 6

### Most children learn to:

#### 1. Speaking

Use a range of oral techniques to present persuasive arguments and engaging narratives

Participate in whole-class debate using the conventions and language of debate, including standard English

Use the techniques of dialogic talk to explore ideas, topics or issues

#### 2. Listening and responding

Make notes when listening for a sustained period and discuss how note-taking varies depending on context and purpose

Analyse and evaluate how speakers present points effectively through use of language and gesture

Listen for language variation in formal and informal contexts

Identify the ways spoken language varies according to differences in the context and purpose of its use

#### 3. Group discussion and interaction

Consider examples of conflict and resolution, exploring the language used

Understand and use a variety of ways to criticise constructively and respond to criticism

#### 4. Drama

Improvise using a range of drama strategies and conventions to explore themes such as hopes, fears and desires

Consider the overall impact of a live or recorded performance, identifying dramatic ways of conveying characters' ideas and building tension

Devise a performance considering how to adapt the performance for a specific audience

#### 6. Word structure and spelling

Spell familiar words correctly and employ a range of strategies to spell difficult and unfamiliar words

Use a range of appropriate strategies to edit, proofread and correct spelling in their own work, on paper and on screen

#### 7. Understanding and interpreting texts

Appraise a text quickly, deciding on its value, quality or usefulness

Understand underlying themes, causes and points of view

Understand how writers use different structures to create coherence and impact

Explore how word meanings change when used in different contexts

Recognise rhetorical devices used to argue, persuade, mislead and sway the reader

Foundation Stage objectives in bold refer to the Early Learning Goals.

Throughout this document, the specific objectives identified for the Foundation Stage are dependent upon the outcomes of the consultation on the EYFS.

## Most children learn to:

### 8. Engaging with and responding to texts

Read extensively and discuss personal reading with others, including in reading groups

Sustain engagement with longer texts, using different techniques to make the text come alive

Compare how writers from different times and places present experiences and use language

### 9. Creating and shaping texts

Set their own challenges to extend achievement and experience in writing

Use different narrative techniques to engage and entertain the reader

In non-narrative, establish, balance and maintain viewpoints

Select words and language drawing on their knowledge of literary features and formal and informal writing

Integrate words, images and sounds imaginatively for different purposes

### 10. Text structure and organisation

Use varied structures to shape and organise text coherently

Use paragraphs to achieve pace and emphasis

### 11. Sentence structure and punctuation

Express subtle distinctions of meaning, including hypothesis, speculation and supposition, by constructing sentences in varied ways

Use punctuation to clarify meaning in complex sentences

### 12. Presentation

Use different styles of handwriting for different purposes with a range of media, developing a consistent and personal legible style

Select from a wide range of ICT programs to present text effectively and communicate information and ideas

# Core learning in literacy by year

## Year 6 progression to Year 7

### Most children learn to:

1. Speaking	2. Listening and responding	3. Group discussion and interaction	4. Drama	6. Word structure and spelling	7. Understanding and interpreting texts
<p>Use exploratory, hypothetical and speculative talk as a tool for clarifying ideas</p> <p>Tailor the structure, vocabulary and delivery of a talk or presentation so that it is helpfully sequenced and supported by gesture or other visual aid as appropriate</p> <p>Use standard English consistently in formal situations and promote, justify or defend a point of view using supporting evidence, example and illustration which are linked back to the main argument</p>	<p>Listen for and recall the main points of a talk, reading or TV programme, reflecting on what has been heard to ask searching questions, make comments or challenge the views expressed</p> <p>Identify the main methods used by presenters to explain, persuade, amuse or argue a case, e.g. emotive language</p> <p>Investigate differences between spoken and written language structures</p>	<p>Adopt a range of roles in discussion, including acting as a spokesperson, and contribute in different ways such as promoting, opposing, exploring and questioning</p> <p>Identify and report the main points emerging from discussion</p> <p>Acknowledge other people's views, justifying or modifying their own views in the light of what others say</p> <p>Work together logically and methodically to solve problems, make deductions, share, test and evaluate ideas</p>	<p>Develop drama techniques to explore in role a variety of situations and texts or respond to stimuli</p> <p>Develop drama techniques and strategies for anticipating, visualising and problem solving in different learning contexts</p> <p>Work collaboratively to devise and present scripted and unscripted pieces that maintain the attention of an audience, and reflect on and evaluate their own presentations and those of others</p>	<p>Revise, consolidate and secure knowledge of correct vowel choices, pluralisation, prefixes, word endings and high frequency words</p> <p>Record and learn from personal errors, corrections, investigations, conventions, exceptions and new vocabulary</p> <p>Draw on analogies to known words, roots, derivations, word families, morphology and familiar spelling patterns</p>	<p>Locate resources for a specific task, appraising the value and relevance of information and acknowledging sources</p> <p>Read between the lines and find evidence for their interpretation</p> <p>Identify how print, images and sounds combine to create meaning</p> <p>Infer the meanings of unknown words using syntax, context, word structures and origins</p> <p>Identify the ways writers of non-fiction match language and organisation to their intentions</p>

**Foundation Stage objectives in bold refer to the Early Learning Goals.**

Throughout this document, the specific objectives identified for the Foundation Stage are dependent upon the outcomes of the consultation on the EYFS.



## Most children learn to:

### 8. Engaging with and responding to texts

Read a range of recent fiction texts independently as the basis for developing critical reflection and personal response

Explore the notion of literary heritages and understand why some texts have been particularly influential or significant

Write reflectively about a text, distinguishing between the attitudes and assumptions of characters and those of the author and taking account of the needs of others who might read it

### 9. Creating and shaping texts

Independently write and present a text with the reader and purpose in mind

Use a range of narrative devices to involve the reader

Identify criteria for evaluating a situation, object or event, presenting findings fairly and adding persuasive emphasis to key points

Experiment with the visual and sound effects of language, including the use of imagery, alliteration, rhythm and rhyme

### 10. Text structure and organisation

Organise ideas into a coherent sequence of paragraphs

In non-chronological writing, introduce, develop and conclude paragraphs appropriately

### 11. Sentence structure and punctuation

Extend their use and control of complex sentences by deploying subordinate clauses effectively

Use punctuation to convey and clarify meaning and to integrate speech into longer sentences

Use standard English confidently and consistently in formal writing, with awareness of the differences between spoken and written language structures

### 12. Presentation

Review the legibility and neatness of their handwriting

Set personal targets to improve presentation, using a range of presentational devices, on paper and on screen

# **Core learning in literacy by strand**

# Core learning in literacy by strand

## Speak and listen for a wide range of purposes in different contexts

### 1. Speaking

#### Most children learn to:

- » speak competently and creatively for different purposes and audiences, reflecting on impact and response
- » explore, develop and sustain ideas through talk

Foundation Stage	Year 1	Year 2	Year 3
Enjoy listening to and using spoken and written language and readily turn to it in play and learning	Tell stories and describe incidents from their own experience in an audible voice	Speak with clarity and use appropriate intonation when reading and reciting texts	Choose and prepare poems or stories for performance, identifying appropriate expression, tone, volume and use of voices and other sounds
Use talk to organise, sequence and clarify thinking, ideas, feelings and events	Retell stories, ordering events using story language	Tell real and imagined stories using the conventions of familiar story language	Explain process or present information, ensuring that items are clearly sequenced, relevant details are included and accounts are ended effectively
Use language to imagine and recreate roles and experiences	Interpret a text by reading aloud with some variety in pace and emphasis	Explain ideas and processes using imaginative and adventurous vocabulary and non-verbal gestures to support communication	Sustain conversation, explain or give reasons for their views or choices
Speak clearly and audibly with confidence and control and show awareness of the listener	Experiment with and build new stores of words to communicate in different contexts		Develop and use specific vocabulary in different contexts
Extend their vocabulary, exploring the meanings and sounds of new words			

## Most children learn to:

### Year 4

Offer reasons and evidence for their views, considering alternative opinions

Respond appropriately to the contributions of others in the light of differing viewpoints

Tell stories effectively and convey detailed information coherently for listeners

Use and reflect on some ground rules for sustaining talk and interactions

### Year 5

Tell a story using notes designed to cue techniques, such as repetition, recap and humour

Present a spoken argument, sequencing points logically, defending views with evidence and making use of persuasive language

Use and explore different question types and different ways words are used, including in formal and informal contexts

### Year 6

Use a range of oral techniques to present persuasive arguments and engaging narratives

Participate in whole-class debate using the conventions and language of debate, including standard English

Use the techniques of dialogic talk to explore ideas, topics or issues

### Year 6 progression into Year 7

Use exploratory, hypothetical and speculative talk as a tool for clarifying ideas

Tailor the structure, vocabulary and delivery of a talk or presentation so that it is helpfully sequenced and supported by gesture or other visual aid as appropriate

Use standard English consistently in formal situations and promote, justify or defend a point of view using supporting evidence, example and illustration which are linked back to the main argument

# Core learning in literacy by strand

## 41 Speak and listen for a wide range of purposes in different contexts

# Core learning in literacy by strand

## Speak and listen for a wide range of purposes in different contexts

### 2. Listening and responding

#### Most children learn to:

- » understand, recall and respond to speakers' implicit and explicit meanings
- » explain and comment on speakers' use of language, including vocabulary, grammar and non-verbal features

Foundation Stage	Year 1	Year 2	Year 3
<b>Listen with enjoyment and respond to stories, songs and other music, rhymes and poems and make up their own stories, songs, rhymes and poems</b>	Listen with sustained concentration, building new stores of words in different contexts	Listen to others in class, ask relevant questions and follow instructions	Follow up others' points and show whether they agree or disagree in whole-class discussion
<b>Sustain attentive listening, responding to what they have heard by relevant comments, questions or actions</b>	Listen to and follow instructions accurately, asking for help and clarification if necessary	Listen to talk by an adult, remember some specific points and identify what they have learned	Identify the presentational features used to communicate the main points in a broadcast
<b>Extend their vocabulary, exploring the meanings and sounds of new words</b>	Listen to tapes or video and express views about how a story or information has been presented	Respond to presentations by describing characters, repeating some highlight and commenting constructively	Identify key sections of an informative broadcast, noting how the language used signals changes or transitions in focus

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

### Year 4

Listen to a speaker, make notes on the talk and use notes to develop a role-play

Compare the different contributions of music, words and images in short extracts from TV programmes

Identify how talk varies with age, familiarity, gender and purpose

### Year 5

Identify different question types and evaluate their impact on the audience

Identify some aspects of talk that vary between formal and informal occasions

Analyse the use of persuasive language

### Year 6

Make notes when listening for a sustained period and discuss how note-taking varies depending on context and purpose

Analyse and evaluate how speakers present points effectively through use of language and gesture

Listen for language variation in formal and informal contexts

Identify the ways spoken language varies according to differences in the context and purpose of its use

### Year 6 progression into Year 7

Listen for and recall the main points of a talk, reading or TV programme, reflecting on what has been heard to ask searching questions, make comments or challenge the views expressed

Identify the main methods used by presenters to explain, persuade, amuse or argue a case, e.g. emotive language

Investigate differences between spoken and written language structures

# Core learning in literacy by strand

## Speak and listen for a wide range of purposes in different contexts

# Core learning in literacy by strand

## Speak and listen for a wide range of purposes in different contexts

### 3. Group discussion and interaction

#### Most children learn to:

- » take different roles in groups to develop thinking and complete tasks
- » participate in conversations, making appropriate contributions building on others' suggestions and responses

Foundation Stage	Year 1	Year 2	Year 3
<b>Interact with others, negotiating plans and activities and taking turns in conversation</b>	Take turns to speak, listen to others' suggestions and talk about what they are going to do	Ensure that everyone contributes, allocate tasks, and consider alternatives and reach agreement	Use talk to organise roles and action
<b>Use talk to organise, sequence and clarify thinking, ideas, feelings and events</b>	Ask and answer questions, make relevant contributions, offer suggestions and take turns  Explain their views to others in a small group, decide how to report the group's views to the class	Work effectively in groups by ensuring that each group member takes a turn challenging, supporting and moving on  Listen to each other's views and preferences, agree the next steps to take and identify contributions by each group member	Actively include and respond to all members of the group  Use the language of possibility to investigate and reflect on feelings, behaviour or relationships

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

### Year 4

Take different roles in groups and use the language appropriate to them, including the roles of leader, reporter, scribe and mentor

Use time, resources and group members efficiently by distributing tasks, checking progress and making back-up plans

Identify the main points of each speaker, compare their arguments and how they are presented

### Year 5

Plan and manage a group task over time using different levels of planning

Understand different ways to take the lead and support others in groups

Understand the process of decision making

### Year 6

Consider examples of conflict and resolution, exploring the language used

Understand and use a variety of ways to criticise constructively and respond to criticism

### Year 6 progression into Year 7

Adopt a range of roles in discussion, including acting as a spokesperson, and contribute in different ways such as promoting, opposing, exploring and questioning

Identify and report the main points emerging from discussion

Acknowledge other people's views, justifying or modifying their own views in the light of what others say

Work together logically and methodically to solve problems, make deductions, share, test and evaluate ideas

# Core learning in literacy by strand

## Speak and listen for a wide range of purposes in different contexts



# Core learning in literacy by strand

## Speak and listen for a wide range of purposes in different contexts

### 4. Drama

#### Most children learn to:

- » use dramatic techniques including work in role to explore ideas and texts
- » create, share and evaluate ideas and understanding through drama

Foundation Stage	Year 1	Year 2	Year 3
<b>Use language to imagine and recreate roles and experiences</b>	Explore familiar themes and characters through improvisation and role-play  Act out their own and well-known stories, using voices for characters  Discuss why they like a performance	Adopt appropriate roles in small or large groups and consider alternative courses of action  Present part of traditional stories, their own stories or work drawn from different parts of the curriculum for members of their own class  Consider how mood and atmosphere are created in live or recorded performance	Present events and characters through dialogue to engage the interest of an audience  Use some drama strategies to explore stories or issues  Identify and discuss qualities of others' performances, including gesture, action and costume

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

Year 4	Year 5	Year 6	Year 6 progression into Year 7
Create roles showing how behaviour can be interpreted from different viewpoints	Reflect on how working in role helps to explore complex issues	Improvise using a range of drama strategies and conventions to explore themes such as hopes, fears and desires	Develop drama techniques to explore in role a variety of situations and texts or respond to stimuli
Develop scripts based on improvisation	Perform a scripted scene making use of dramatic conventions	Consider the overall impact of a live or recorded performance, identifying dramatic ways of conveying characters' ideas and building tension	Develop drama techniques and strategies for anticipating, visualising and problem solving in different learning contexts
Comment constructively on plays and performances, discussing effects and how they are achieved	Use and recognise the impact of theatrical effects in drama	Devise a performance considering how to adapt the performance for a specific audience	Work collaboratively to devise and present scripted and unscripted pieces that maintain the attention of an audience, and reflect on and evaluate their own presentations and those of others

# Core learning in literacy by strand

## Speak and listen for a wide range of purposes in different contexts

# Core learning in literacy by strand

## Read and write for a range of purposes on paper and on screen

### 5. Word recognition: decoding (reading) and encoding (spelling)

#### Most children learn to:

- » read fluently and automatically by using phonic knowledge of grapheme–phoneme correspondences and the skills of blending as their prime approach for decoding unfamiliar words, and thereby:
  - build up a store of words that are instantly recognised and understood on sight
  - segment words into their constituent phonemes and understand that spelling is the reverse of blending phonemes into words for reading

#### Foundation Stage

##### Explore and experiment with sounds, words and texts

##### Link sounds to letters, naming and sounding the letters of the alphabet

*Recognise letter shapes and say a sound for each*

##### Use a pencil and hold it effectively to form recognisable letters, most of which are formed correctly

##### Hear and say sounds in words in the order in which they occur<sup>1</sup>

Read simple words by sounding out and blending the phonemes all through the word from left to right

*Children move from reading simple consonant–vowel–consonant (CVC) words such as 'cat' and 'bus' to longer CCVC words such as 'clap' and 'stop', and CVCC words such as 'fast' and 'milk'*

Recognise common digraphs

Read some high frequency words

##### Use phonic knowledge to write simple regular words and make phonetically plausible attempts at more complex words

##### Read a range of familiar and common words and simple sentences independently

Read texts compatible with their phonic knowledge and skills

Read and write one grapheme for each of the 44 phonemes

#### Year 1

Recognise and use alternative ways of pronouncing the graphemes already taught, for example, that the grapheme 'g' is pronounced differently in 'get' and 'gem'; the grapheme 'ow' is pronounced differently in 'how' and 'show'

Recognise and use alternative ways of spelling the phonemes already taught, for example that the /ae/ sound can be spelt with 'ai', 'ay' or 'a-e'; that the /ee/ sound can also be spelt as 'ea' and 'e'; and begin to know which words contain which spelling alternatives

Identify the constituent parts of two-syllable and three-syllable words to support the application of phonic knowledge and skills

Recognise automatically an increasing number of familiar high frequency words

Apply phonic knowledge and skills as the prime approach to reading and spelling unfamiliar words that are not completely decodable

Read more challenging texts which can be decoded using their acquired phonic knowledge and skills, along with automatic recognition of high frequency words

Read and spell phonically decodable two-syllable and three-syllable words

**Foundation Stage objectives in bold refer to the Early Learning Goals.**

<sup>1</sup> The wording of this objective may change depending upon the outcomes of the consultation on changes to the Early Learning Goals pending parliamentary approval.

## Most children learn to:

### Year 2

Read independently and with increasing fluency longer and less familiar texts

Spell with increasing accuracy and confidence, drawing on word recognition and knowledge of word structure, and spelling patterns

Know how to tackle unfamiliar words that are not completely decodable

Read and spell less common alternative graphemes including trigraphs

Read high and medium frequency words independently and automatically

### Note

Some of the spelling objectives appear in both strands 5 and 6. This reflects that phonics should be the prime approach children use in both learning to read and learning to spell. The objectives in strand 6 also cover the wider approaches children need to learn and deploy to spell words accurately.

The development of children's phonic knowledge, skills and understanding is time limited and the majority of children will usually achieve the learning objectives for strand 5 by the end of Key Stage 1. This means that the emphasis of the reading curriculum shifts over time from learning to read to reading to learn, as children secure the alphabetic code, become confident in decoding and recognising words, and begin to read for purpose and pleasure. However, spelling (also covered in strand 6) takes longer to secure and teaching needs to continue rigorously throughout primary school, and beyond if necessary.

Year 3 is a significant year for moving the emphasis on teaching from word recognition to language comprehension. *The Rose Report: Independent review of the teaching of early reading (2006)* makes clear that the two dimensions of reading – word recognition processes and language comprehension processes – are both necessary to achieve fluent reading. However, the balance between word recognition and language comprehension should change as children acquire secure and automatic decoding skills.

Children working significantly above or below age-related expectations will need differentiated support, which may include tracking forward or back in terms of learning objectives. EAL learners should be expected to work within the overall expectations for their year group.

# Core learning in literacy by strand

Read and write for a range of purposes on paper and on screen

# Core learning in literacy by strand

## Read and write for a range of purposes on paper and on screen

### 6. Word structure and spelling

#### Most children learn:

- » that segmenting words into their constituent phonemes for spelling is the reverse of blending phonemes into words for reading
- » to spell words accurately by combining the use of grapheme–phoneme correspondence knowledge as the prime approach, and also morphological knowledge and etymological information
- » a range of approaches to learn and spell irregular words

Foundation Stage	Year 1	Year 2	Year 3
<b>Use phonic knowledge to write simple regular words and make phonetically plausible attempts at more complex words</b>	<p>Spell new words using phonics as the prime approach</p> <p>Segment sounds into their constituent phonemes in order to spell them correctly</p> <p><i>Children move from spelling simple CVC words to longer words that include common diagraphs and adjacent consonants such as 'brush', 'crunch'</i></p> <p>Recognise and use alternative ways of spelling the graphemes already taught, for example that the /æ/ sound can be spelt with 'ai', 'ay' or 'a-e'; that the /ee/ sound can also be spelt as 'ea' and 'e'; and begin to know which words contain which spelling alternatives</p> <p>Use knowledge of common inflections in spelling, such as plurals, <i>-ly</i>, <i>-er</i></p> <p>Read and spell phonically decodable two-syllable and three-syllable words</p>	<p>Spell with increasing accuracy and confidence, drawing on word recognition and knowledge of word structure, and spelling patterns including common inflections and use of double letters</p> <p>Read and spell less common alternative graphemes including trigraphs</p>	<p>Spell high and medium frequency words</p> <p>Recognise a range of prefixes and suffixes, understanding how they modify meaning and spelling, and how they assist in decoding long complex words</p> <p>Spell unfamiliar words using known conventions including grapheme–phoneme correspondences and morphological rules</p>

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

### Year 4

Use knowledge of phonics, morphology and etymology to spell new and unfamiliar words

Distinguish the spelling and meaning of common homophones

Know and apply common spelling rules

Develop a range of personal strategies for learning new and irregular words

### Year 5

Spell words containing unstressed vowels

Know and use less common prefixes and suffixes such as *im-*, *ir-*, *-cian*

Group and classify words according to their spelling patterns and their meanings

### Year 6

Spell familiar words correctly and employ a range of strategies to spell difficult and unfamiliar words

Use a range of appropriate strategies to edit, proofread and correct spelling in their own work, on paper and on screen

### Year 6 progression into Year 7

Revise, consolidate and secure knowledge of correct vowel choices, pluralisation, prefixes, word endings and high frequency words

Record and learn from personal errors, corrections, investigations, conventions, exceptions and new vocabulary

Draw on analogies to known words, roots, derivations, word families, morphology and familiar spelling patterns

#### Note

*Some of the spelling objectives appear in both strands 5 and 6. This reflects that phonics should be the prime approach children use in both learning to read and learning to spell. The objectives in strand 6 also cover the wider approaches children need to learn and deploy to spell words accurately.*

# Core learning in literacy by strand

Read and write for a range of purposes on paper and on screen

# Core learning in literacy by strand

## Read and write for a range of purposes on paper and on screen

### 7. Understanding and interpreting texts

#### Most children learn to:

- » retrieve, select and describe information, events or ideas
- » deduce, infer and interpret information, events or ideas
- » use syntax, context, word structures and origins to develop their understanding of word meanings
- » identify and comment on the structure and organisation of texts
- » explain and comment on writers' use of language, including vocabulary, grammatical and literary features

Foundation Stage	Year 1	Year 2	Year 3
<b>Know that print carries meaning and, in English, is read from left to right and top to bottom</b>	Identify the main events and characters in stories, and find specific information in simple texts	Draw together ideas and information from across a whole text, using simple signposts in the text	Identify and make notes of the main points of section(s) of text
<b>Extend their vocabulary, exploring the meanings and sounds of new words</b>	Use syntax and context when reading for meaning	Give some reasons why things happen or characters change	Infer characters' feelings in fiction and consequences in logical explanations
<b>Show an understanding of the elements of stories, such as main character, sequence of events, and openings, and how information can be found in non-fiction texts to answer questions about where, who, why and how</b>	Make predictions showing an understanding of ideas, events and characters  Recognise the main elements that shape different texts	Explain organisational features of texts, including alphabetical order, layout, diagrams, captions, hyperlinks and bullet points  Use syntax and context to build their store of vocabulary when reading for meaning	Identify how different texts are organised, including reference texts, magazines and leaflets, on paper and on screen  Use syntax, context and word structure to build their store of vocabulary as they read for meaning
<b>Retell narratives in the correct sequence, drawing on the language patterns of stories</b>	Explore the effect of patterns of language and repeated words and phrases	Explore how particular words are used, including words and expressions with similar meanings	Explore how different texts appeal to readers using varied sentence structures and descriptive language

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

Year 4	Year 5	Year 6	Year 6 progression into Year 7
Identify and summarise evidence from a text to support a hypothesis	Make notes on and use evidence from across a text to explain events or ideas	Appraise a text quickly, deciding on its value, quality or usefulness	Locate resources for a specific task, appraising the value and relevance of information and acknowledging sources
Deduce characters' reasons for behaviour from their actions and explain how ideas are developed in non-fiction texts	Infer writers' perspectives from what is written and from what is implied	Understand underlying themes, causes and points of view	Read between the lines and find evidence for their interpretation
Use knowledge of different organisational features of texts to find information effectively	Compare different types of narrative and information texts and identify how they are structured	Understand how writers use different structures to create coherence and impact	Identify how print, images and sounds combine to create meaning
Use knowledge of word structures and origins to develop their understanding of word meanings	Distinguish between everyday use of words and their subject-specific use	Explore how word meanings change when used in different contexts	Infer the meanings of unknown words using syntax, context, word structures and origins
Explain how writers use figurative and expressive language to create images and atmosphere	Explore how writers use language for comic and dramatic effects	Recognise rhetorical devices used to argue, persuade, mislead and sway the reader	Identify the ways writers of non-fiction match language and organisation to their intentions

# Core learning in literacy by strand

Read and write for a range of purposes on paper and on screen



# Core learning in literacy by strand

## Read and write for a range of purposes on paper and on screen

### 8. Engaging with and responding to texts

#### Most children learn to:

- » read independently for purpose, pleasure and learning
- » respond imaginatively, using different strategies to engage with texts
- » evaluate writers' purposes and viewpoints, and the overall effect of the text on the reader

Foundation Stage	Year 1	Year 2	Year 3
<b>Listen with enjoyment to stories, songs, rhymes and poems, sustain attentive listening and respond with relevant comments, questions or actions</b>	Select books for personal reading and give reasons for choices	Read whole books on their own, choosing and justifying selections	Share and compare reasons for reading preferences, extending the range of books read
<b>Show an understanding of the elements of stories, such as main character, sequence of events, and openings and how information can be found in non-fiction texts to answer questions about where, who, why and how</b>	Visualise and comment on events, characters and ideas, making imaginative links to their own experiences	Engage with books through exploring and enacting interpretations	Empathise with characters and debate moral dilemmas portrayed in texts
<b>Use language to imagine and recreate roles and experiences</b>	Distinguish fiction and non-fiction texts and the different purposes for reading them	Explain their reactions to texts, commenting on important aspects	Identify features that writers use to provoke readers' reactions

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

### Year 4

Read extensively favourite authors or genres and experiment with other types of text

Interrogate texts to deepen and clarify understanding and response

Explore why and how writers write, including through face-to-face and online contact with authors

### Year 5

Reflect on reading habits and preferences and plan personal reading goals

Compare the usefulness of techniques such as visualisation, prediction and empathy in exploring the meaning of texts

Compare how a common theme is presented in poetry, prose and other media

### Year 6

Read extensively and discuss personal reading with others, including in reading groups

Sustain engagement with longer texts, using different techniques to make the text come alive

Compare how writers from different times and places present experiences and use language

### Year 6 progression into Year 7

Read a range of recent fiction texts independently as the basis for developing critical reflection and personal response

Explore the notion of literary heritages and understand why some texts have been particularly influential or significant

Write reflectively about a text, distinguishing between the attitudes and assumptions of characters and those of the author and taking account of the needs of others who might read it

# Core learning in literacy by strand

Read and write for a range of purposes on paper and on screen

# Core learning in literacy by strand

## Read and write for a range of purposes on paper and on screen

### 9. Creating and shaping texts

#### Most children learn to:

- » write independently and creatively for purpose, pleasure and learning
- » use and adapt a range of forms, suited to different purposes and readers
- » make stylistic choices, including vocabulary, literary features and viewpoints or voice
- » use structural and presentational features for meaning and impact

Foundation Stage	Year 1	Year 2	Year 3
<b>Attempt writing for various purposes, using features of different forms such as lists, stories and instructions</b>	Independently choose what to write about, plan and follow it through  Use key features of narrative in their own writing  Convey information and ideas in simple non-narrative forms  Find and use new and interesting words and phrases, including story language  Create short simple texts on paper and on screen that combine words with images (and sounds)	Draw on knowledge and experience of texts in deciding and planning what and how to write  Sustain form in narrative, including use of person and time  Maintain consistency in non-narrative, including purpose and tense  Make adventurous word and language choices appropriate to the style and purpose of the text  Select from different presentational features to suit particular writing purposes on paper and on screen	Make decisions about form and purpose, identify success criteria and use them to evaluate their writing  Use beginning, middle and end to write narratives in which events are sequenced logically and conflicts resolved  Write non-narrative texts using structures of different text-types  Select and use a range of technical and descriptive vocabulary  Use layout, format, graphics and illustrations for different purposes

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

Year 4	Year 5	Year 6	Year 6 progression into Year 7
Develop and refine ideas in writing using planning and problem-solving strategies	Reflect independently and critically on their own writing and edit and improve it	Set their own challenges to extend achievement and experience in writing	Independently write and present a text with the reader and purpose in mind
Use settings and characterisation to engage readers' interest	Experiment with different narrative forms and styles to write their own stories	Use different narrative techniques to engage and entertain the reader	Use a range of narrative devices to involve the reader
Summarise and shape material and ideas from different sources to write convincing and informative non-narrative texts	Adapt non-narrative forms and styles to write fiction or factual texts, including poems	In non-narrative, establish, balance and maintain viewpoints	Identify criteria for evaluating a situation, object or event, presenting findings fairly and adding persuasive emphasis to key points
Show imagination through the language used to create emphasis, humour, atmosphere or suspense	Vary the pace and develop the viewpoint through the use of direct and reported speech, portrayal of action and selection of detail	Select words and language drawing on their knowledge of literary features and formal and informal writing	Experiment with the visual and sound effects of language, including the use of imagery, alliteration, rhythm and rhyme
Choose and combine words, images and other features for particular effects	Create multi-layered texts, including use of hyperlinks and linked web pages	Integrate words, images and sounds imaginatively for different purposes	

# Core learning in literacy by strand

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# Core learning in literacy by strand

## Read and write for a range of purposes on paper and on screen

### 10. Text structure and organisation

#### Most children learn to:

- » organise ideas into a coherent structure including layout, sections and paragraphs
- » write cohesive paragraphs linking sentences within and between them

Foundation Stage	Year 1	Year 2	Year 3
<b>Attempt writing for various purposes, using features of different forms such as lists, stories and instructions</b>	Write chronological and non-chronological texts using simple structures  Group written sentences together in chunks of meaning or subject	Use planning to establish clear sections for writing  Use appropriate language to make sections hang together	Signal sequence, place and time to give coherence  Group related material into paragraphs

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

### Year 4

Organise text into paragraphs to distinguish between different information, events or processes

Use adverbs and conjunctions to establish cohesion within paragraphs

### Year 5

Experiment with the order of sections and paragraphs to achieve different effects

Change the order of material within a paragraph, moving the topic sentence

### Year 6

Use varied structures to shape and organise text coherently

Use paragraphs to achieve pace and emphasis

### Year 6 progression into Year 7

Organise ideas into a coherent sequence of paragraphs

In non-chronological writing, introduce, develop and conclude paragraphs appropriately

# Core learning in literacy by strand

Read and write for a range of purposes on paper and on screen

# Core learning in literacy by strand

## Read and write for a range of purposes on paper and on screen

### 11. Sentence structure and punctuation

#### Most children learn to:

- » vary and adapt sentence structure for meaning and effect
- » use a range of punctuation correctly to support meaning and emphasis
- » convey meaning through grammatically accurate and correctly punctuated sentences

Foundation Stage	Year 1	Year 2	Year 3
<b>Write their own names and other things such as labels and captions and begin to form simple sentences sometimes using punctuation</b>	Compose and write simple sentences independently to communicate meaning  Use capital letters and full stops when punctuating simple sentences	Write simple and compound sentences and begin to use subordination in relation to time and reason  Compose sentences using tense consistently (present and past)  Use question marks, and use commas to separate items in a list	Show relationships of time, reason and cause through subordination and connectives  Compose sentences using adjectives, verbs and nouns for precision, clarity and impact  Clarify meaning through the use of exclamation marks and speech marks

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

### Year 4

Clarify meaning and point of view by using varied sentence structure (phrases, clauses and adverbials)

Use commas to mark clauses, and use the apostrophe for possession

### Year 5

Adapt sentence construction to different text-types, purposes and readers

Punctuate sentences accurately, including using speech marks and apostrophes

### Year 6

Express subtle distinctions of meaning, including hypothesis, speculation and supposition, by constructing sentences in varied ways

Use punctuation to clarify meaning in complex sentences

### Year 6 progression into Year 7

Extend their use and control of complex sentences by deploying subordinate clauses effectively

Use punctuation to convey and clarify meaning and to integrate speech into longer sentences

Use standard English confidently and consistently in formal writing, with awareness of the differences between spoken and written language structures

# Core learning in literacy by strand



# Core learning in literacy by strand

## Read and write for a range of purposes on paper and on screen

### 12. Presentation

#### Most children learn to:

- » develop a clear and fluent joined handwriting style
- » use keyboard skills and ICT tools confidently to compose and present work

Foundation Stage	Year 1	Year 2	Year 3
<b>Use a pencil and hold it effectively to form recognisable letters, most of which are correctly formed</b>	Write most letters, correctly formed and orientated, using a comfortable and efficient pencil grip  Write with spaces between words accurately  Use the space bar and keyboard to type their name and simple texts	Write legibly, using upper and lower case letters appropriately within words, and observing correct spacing within and between words  Form and use the four basic handwriting joins  Wordprocess short narrative and non-narrative texts	Write with consistency in the size and proportion of letters and spacing within and between words, using the correct formation of handwriting joins  Develop accuracy and speed when using keyboard skills to type, edit and re-draft

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

### Year 4

Write consistently with neat, legible and joined handwriting

Use wordprocessing packages to present written work and continue to increase speed and accuracy in typing

### Year 5

Adapt handwriting for specific purposes, for example printing, use of italic

Use a range of ICT programs to present texts, making informed choices about which electronic tools to use for different purposes

### Year 6

Use different styles of handwriting for different purposes with a range of media, developing a consistent and personal legible style

Select from a wide range of ICT programs to present text effectively and communicate information and ideas

### Year 6 progression into Year 7

Review the legibility and neatness of their handwriting

Set personal targets to improve presentation, using a range of presentational devices, on paper and on screen

# Core learning in literacy by strand

Read and write for a range of purposes on paper and on screen

# Mathematics

## Strands of objectives

A clearer structure for teaching mathematics has been provided by simplifying the structure of the objectives. The seven strands of learning give a broad overview of the mathematics curriculum in the primary phase. Objectives are aligned to the seven strands to demonstrate progression in each strand.

The seven strands are not equally weighted. In constructing the strands, knowledge of number facts has been separated from calculation, methods of calculation have been unified, measures have been kept separate from shape and space, and problem solving has been embedded into the broader strand of using and applying mathematics. The seven strands relate very readily to the 1999 Framework and the programmes of study in the National Curriculum Orders for mathematics. Covering the objectives in the seven strands will support children in their progression towards the Early Learning Goals and the appropriate National Curriculum levels at Key Stages 1 and 2.

The seven strands are as follows.

- Using and applying mathematics
- Counting and understanding number
- Knowing and using number facts
- Calculating
- Understanding shape
- Measuring
- Handling data.

The construction of the Framework around the seven strands not only simplifies the overall structure, but also presents a more useful vehicle for highlighting and amending some of the aspects of mathematics that children find difficult to learn.

## Good mathematics teaching

Good mathematics teaching is lively, engaging and involves a carefully planned blend of approaches that direct children's learning. Children are challenged to think. The teacher or practitioner provides children with good support but requires independence as and when appropriate. The pitch and pace of the work is sensitive to the rate at which the children learn while ensuring that expectations are kept high and progress is made by all children.

In good mathematics teaching the skills and knowledge that children are expected to learn are clearly defined and the teacher has mapped out how to lead the children to the mathematics. Children know that they can discuss, seek help and use resources as and when they need to. They like to be challenged and enjoy the opportunities to practise and apply their learning. Over time children identify their attainment and recognise the progress they have made. They support one another in group work and are happy to share their ideas and to explain their reasoning and methods. Children who need more support than others are identified quickly and receive early intervention to help them maintain their progress.

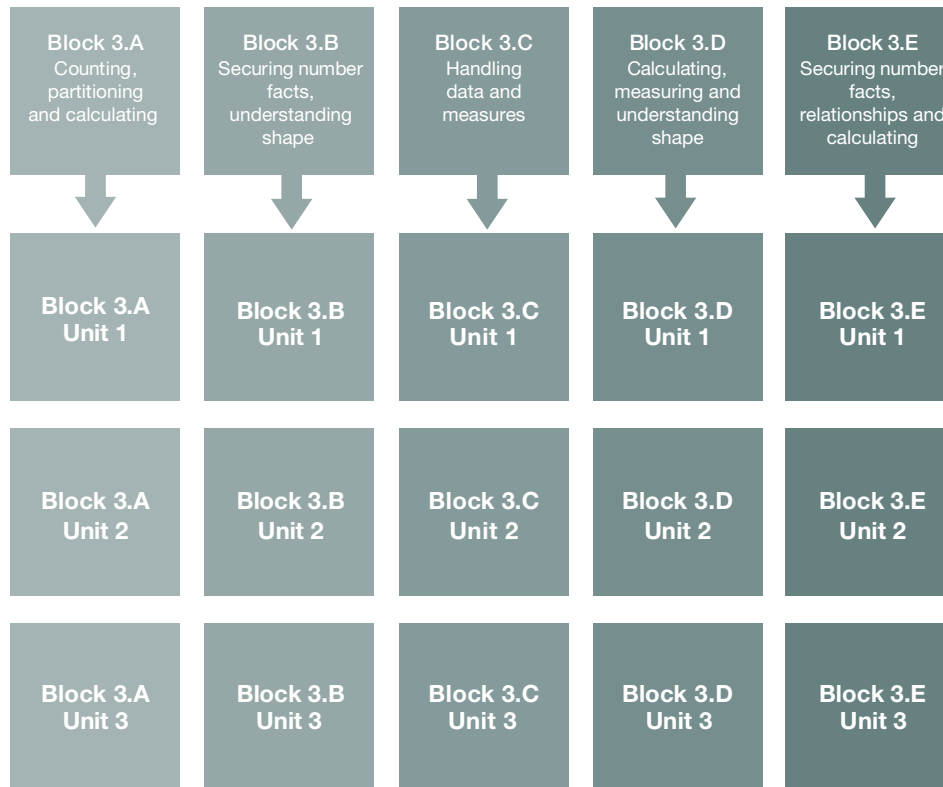
The teacher or practitioner recognises that mathematics is a combination of concepts, facts, properties, rules, patterns and processes. Leading children's learning must take account of this and requires a broad repertoire of teaching and organisational approaches. There are lessons where the emphasis is on technique and the teaching is quite directive and there are lessons where the directing

is less evident and through carefully chosen activity and well-directed questioning the children are steered to discover the rules, patterns or properties of numbers or shapes.

Good mathematics teaching requires a good knowledge of the subject, an understanding of the progression in the curriculum being taught and a recognition that some teaching approaches are better suited to promote particular learning and outcomes.

## Planning

Each year of Key Stages 1 and 2 is structured around five blocks of work, with each block drawing on three of the mathematics strands, including the using and applying mathematics strand. Each of the five blocks is organised into three units of work that can be covered across the year, possibly termly. Each unit of work is intended to provide two – or in some cases three – weeks of learning. This block-and-unit structure provides a long-term planning tool for you to use to build a year’s programme by piecing together the units of work over each term. The following diagram shows an exemplar structure for Year 3.



Each block of work has a set of learning intentions drawn from the objectives in each of the three strands being addressed by the block. These are reframed in language children can recognise and can be used to set group or personal learning goals over the three units of work. A set of questions linked to the objectives for the block provides assessment prompts to help determine where the work of the unit might be pitched and whether there are particular groups of children in the class who need additional support to ensure that they make progress, or who are already able to move on.

The unit includes links to resources that can be amended and adapted for use in planning specific units of work. There is also the flexibility for teachers to draw on other resources that have been particularly helpful as the teaching and learning opportunities are designed to meet the needs of children in the class.

## Mixed-age classes

When planning work for a mixed-age class, the respective units in the corresponding year groups can be used to guide the work; when mapping out learning for different groups of children the adjacent units offer a way of identifying suitable work.

The electronic Framework sets out objectives for units covering similar content in different year groups. The aim is to assist teachers in selecting material from units with commonality of content and pitched at a variety of levels to meet the needs of all children in a class.

## Using and applying mathematics

The electronic Framework includes a detailed paper about progression in using and applying mathematics. All the example units in the planning section include objectives from the using and applying mathematics strand along with objectives taken from two other strands.

The objectives in each year group include progression in each of communication, reasoning, enquiry and problem solving.

The electronic Framework includes a table showing links between the objectives in the renewed mathematics Framework and the National Curriculum, and between the objectives in the renewed mathematics Framework and the 1999 Framework. One of the changes in the renewed Framework is making more explicit the objectives in using and applying mathematics.

## Calculation

The electronic Framework includes a detailed paper on mental and written calculation. Children need to be introduced to the processes of calculation through practical, oral and mental activities. As children begin to understand the underlying ideas they develop ways of recording to support their thinking and calculation methods; they use particular methods that apply to special cases; they learn to interpret and use the signs and symbols involved. Over time children learn how to use models and images, such as empty number lines, to support their mental and informal written methods of calculation. As children's mental methods are strengthened and refined, so too are their informal written methods. These methods become more efficient and succinct and lead to written methods that can be used more generally. By the end of Year 6, children are equipped with mental, written and calculator methods they understand and can use correctly. When faced with a calculation, children are able to decide which method is most appropriate and have strategies to check their accuracy. At whatever stage in their learning and whatever method is being used, it must still be underpinned by a secure and appropriate knowledge of number facts, along with those mental skills that are needed to carry out the process and judge whether it was successful.

The overall aim is that when children leave primary school they:

- have a secure knowledge of number facts and a good understanding of the four operations
- are able to use this knowledge and understanding to carry out calculations mentally and to apply general strategies when using single-digit and two-digit numbers and particular strategies to special cases involving bigger numbers
- make use of diagrams and informal notes to help record steps and partial answers when using mental methods that generate more information than can be kept in their heads
- have an efficient, reliable, compact written method of calculation for each operation, which they can apply with confidence when undertaking calculations that they cannot carry out mentally

- use a calculator effectively, using their mental skills to monitor the process, check the steps involved and decide whether the numbers displayed make sense.

It is crucial that mental methods of calculation are taught to children and not confined to starter activities in lessons.

## Calculators

The electronic Framework includes a detailed paper on the use of calculators. This includes examples of how calculators can be used effectively throughout the primary years from Foundation Stage to Year 6.

In the renewed Framework there is an emphasis in Key Stage 1 and the first two years of Key Stage 2 on helping children to secure their knowledge of number facts and mental calculation strategies. They begin too to develop written methods that they can apply more generally. The introduction of the calculator as a calculating tool would be appropriate in Year 4 when children begin to learn how they can use their knowledge of number facts to solve problems with and without the aid of a calculator. They can begin to compare their mental, written and calculator methods.

# Core learning in mathematics by year

# Core learning in mathematics by year

## Foundation Stage

### Most children learn to:

#### Using and applying mathematics

##### Use developing mathematical ideas and methods to solve practical problems

Match sets of objects to numerals that represent the number of objects

Sort objects, making choices and justifying decisions

##### Talk about, recognise and recreate simple patterns

Describe solutions to practical problems, drawing on experience, talking about their own ideas, methods and choices

#### Counting and understanding number

##### Say and use number names in order in familiar contexts

Know that numbers identify how many objects are in a set

##### Count reliably up to 10 everyday objects

Estimate how many objects they can see and check by counting

Count aloud in ones, twos, fives or tens

##### Use language such as 'more' or 'less' to compare two numbers

Use ordinal numbers in different contexts

##### Recognise numerals 1 to 9

#### Knowing and using number facts

Observe number relationships and patterns in the environment and use these to derive facts

##### Find one more or one less than a number from 1 to 10

Select two groups of objects to make a given total of objects

#### Calculating

##### Begin to relate addition to combining two groups of objects and subtraction to 'taking away'

##### In practical activities and discussion begin to use the vocabulary involved in adding and subtracting

Count repeated groups of the same size

Share objects into equal groups and count how many in each group

All statements and wording in bold refer to the Early Learning Goals.



## Most children learn to:

### Understanding shape

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Use familiar objects and common shapes to create and recreate patterns and build models

**Use language such as 'circle' or 'bigger' to describe the shape and size of solids and flat shapes**

Use everyday words to describe position

### Measuring

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**Use language such as 'greater', 'smaller', 'heavier' or 'lighter' to compare quantities**

Use everyday language related to time; order and sequence familiar events and measure short periods of time

### Handling data

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Sort familiar objects to identify their similarities and differences

Count how many objects share a particular property, presenting results using pictures, drawings or numerals

# Core learning in mathematics by year

## Year 1

### Most children learn to:

#### Using and applying mathematics

Solve problems involving counting, adding, subtracting, doubling or halving in the context of numbers, measures or money, for example to 'pay' and 'give change'

Describe a puzzle or problem using numbers, practical materials and diagrams; use these to solve the problem and set the solution in the original context

Answer a question by selecting and using suitable equipment, and sorting information, shapes or objects; display results using tables and pictures

Describe simple patterns and relationships involving numbers or shapes; decide whether examples satisfy given conditions

Describe ways of solving puzzles and problems, explaining choices and decisions orally or using pictures

#### Counting and understanding number

Count reliably at least 20 objects, recognising that when rearranged the number of objects stays the same; estimate a number of objects that can be checked by counting

Compare and order numbers, using the related vocabulary; use the equals (=) sign

**Read and write numerals from 0 to 20, then beyond; use knowledge of place value to position these numbers on a number track and number line**

Say the number that is 1 more or less than any given number, and 10 more or less for multiples of 10

Use the vocabulary of halves and quarters in context

#### Knowing and using number facts

**Derive and recall all pairs of numbers with a total of 10 and addition facts for totals to at least 5; work out the corresponding subtraction facts**

Count on or back in ones, twos, fives and tens and use this knowledge to derive the multiples of 2, 5 and 10 to the tenth multiple

Recall the doubles of all numbers to at least 10

#### Calculating

Relate addition to counting on; recognise that addition can be done in any order; use practical and informal written methods to support the addition of a one-digit number or a multiple of 10 to a one-digit or two-digit number

Understand subtraction as 'take away' and find a 'difference' by counting up; use practical and informal written methods to support the subtraction of a one-digit number from a one-digit or two-digit number and a multiple of 10 from a two-digit number

**Use the vocabulary related to addition and subtraction and symbols to describe and record addition and subtraction number sentences**

Solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups

Key objectives are in bold.

## Most children learn to:

### Understanding shape

Visualise and name common 2-D shapes and 3-D solids and describe their features; use them to make patterns, pictures and models

Identify objects that turn about a point (e.g. scissors) or about a line (e.g. a door); recognise and make whole, half and quarter turns

Visualise and use everyday language to describe the position of objects and direction and distance when moving them, for example when placing or moving objects on a game board

### Measuring

Estimate, measure, weigh and compare objects, choosing and using suitable uniform non-standard or standard units and measuring instruments (e.g. a lever balance, metre stick or measuring jug)

Use vocabulary related to time; order days of the week and months; read the time to the hour and half hour

### Handling data

Answer a question by recording information in lists and tables; present outcomes using practical resources, pictures, block graphs or pictograms

Use diagrams to sort objects into groups according to a given criterion; suggest a different criterion for grouping the same objects

# Core learning in mathematics by year

## Year 2

### Most children learn to:

#### Using and applying mathematics

Solve problems involving addition, subtraction, multiplication or division in contexts of numbers, measures or pounds and pence

Identify and record the information or calculation needed to solve a puzzle or problem; carry out the steps or calculations and check the solution in the context of the problem

Follow a line of enquiry; answer questions by choosing and using suitable equipment and selecting, organising and presenting information in lists, tables and simple diagrams

Describe patterns and relationships involving numbers or shapes, make predictions and test these with examples

Present solutions to puzzles and problems in an organised way; explain decisions, methods and results in pictorial, spoken or written form, using mathematical language and number sentences

#### Counting and understanding number

Read and write two-digit and three-digit numbers in figures and words; describe and extend number sequences and recognise odd and even numbers

**Count up to 100 objects by grouping them and counting in tens, fives or twos; explain what each digit in a two-digit number represents, including numbers where 0 is a place holder; partition two-digit numbers in different ways, including into multiples of 10 and 1**

Order two-digit numbers and position them on a number line; use the greater than (>) and less than (<) signs

Estimate a number of objects; round two-digit numbers to the nearest 10

Find one half, one quarter and three quarters of shapes and sets of objects

#### Knowing and using number facts

**Derive and recall all addition and subtraction facts for each number to at least 10, all pairs with totals to 20 and all pairs of multiples of 10 with totals up to 100**

Understand that halving is the inverse of doubling and derive and recall doubles of all numbers to 20, and the corresponding halves

Derive and recall multiplication facts for the 2, 5 and 10 times-tables and the related division facts; recognise multiples of 2, 5 and 10

Use knowledge of number facts and operations to estimate and check answers to calculations

#### Calculating

**Add or subtract mentally a one-digit number or a multiple of 10 to or from any two-digit number; use practical and informal written methods to add and subtract two-digit numbers**

Understand that subtraction is the inverse of addition and vice versa; use this to derive and record related addition and subtraction number sentences

Represent repeated addition and arrays as multiplication, and sharing and repeated subtraction (grouping) as division; use practical and informal written methods and related vocabulary to support multiplication and division, including calculations with remainders

**Use the symbols +, −, ×, ÷ and = to record and interpret number sentences involving all four operations; calculate the value of an unknown in a number sentence (e.g.  $\square \div 2 = 6$ ,  $30 - \square = 24$ )**

Key objectives are in bold.

## Most children learn to:

### Understanding shape

**Visualise common 2-D shapes and 3-D solids; identify shapes from pictures of them in different positions and orientations; sort, make and describe shapes, referring to their properties**

Identify reflective symmetry in patterns and 2-D shapes and draw lines of symmetry in shapes

Follow and give instructions involving position, direction and movement

Recognise and use whole, half and quarter turns, both clockwise and anticlockwise; know that a right angle represents a quarter turn

### Measuring

Estimate, compare and measure lengths, weights and capacities, choosing and using standard units (m, cm, kg, litre) and suitable measuring instruments

Read the numbered divisions on a scale, and interpret the divisions between them (e.g. on a scale from 0 to 25 with intervals of 1 shown but only the divisions 0, 5, 10, 15 and 20 numbered); use a ruler to draw and measure lines to the nearest centimetre

**Use units of time (seconds, minutes, hours, days) and know the relationships between them; read the time to the quarter hour; identify time intervals, including those that cross the hour**

### Handling data

Answer a question by collecting and recording data in lists and tables; represent the data as block graphs or pictograms to show results; use ICT to organise and present data

**Use lists, tables and diagrams to sort objects; explain choices using appropriate language, including 'not'**

# Core learning in mathematics by year

## Year 3

### Most children learn to:

#### Using and applying mathematics

Solve one-step and two-step problems involving numbers, money or measures, including time, choosing and carrying out appropriate calculations

Represent the information in a puzzle or problem using numbers, images or diagrams; use these to find a solution and present it in context, where appropriate using £.p notation or units of measure

Follow a line of enquiry by deciding what information is important; make and use lists, tables and graphs to organise and interpret the information

Identify patterns and relationships involving numbers or shapes, and use these to solve problems

Describe and explain methods, choices and solutions to puzzles and problems, orally and in writing, using pictures and diagrams

#### Counting and understanding number

Read, write and order whole numbers to at least 1000 and position them on a number line; count on from and back to zero in single-digit steps or multiples of 10

#### **Partition three-digit numbers into multiples of 100, 10 and 1 in different ways**

Round two-digit or three-digit numbers to the nearest 10 or 100 and give estimates for their sums and differences

Read and write proper fractions (e.g.  $\frac{3}{7}$ ,  $\frac{9}{10}$ ), interpreting the denominator as the parts of a whole and the numerator as the number of parts; identify and estimate fractions of shapes; use diagrams to compare fractions and establish equivalents

#### Knowing and using number facts

#### **Derive and recall all addition and subtraction facts for each number to 20, sums and differences of multiples of 10 and number pairs that total 100**

Derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 10 times-tables and the corresponding division facts; recognise multiples of 2, 5 or 10 up to 1000

Use knowledge of number operations and corresponding inverses, including doubling and halving, to estimate and check calculations

#### Calculating

#### **Add or subtract mentally combinations of one-digit and two-digit numbers**

Develop and use written methods to record, support or explain addition and subtraction of two-digit and three-digit numbers

Multiply one-digit and two-digit numbers by 10 or 100, and describe the effect

Use practical and informal written methods to multiply and divide two-digit numbers (e.g.  $13 \times 3$ ,  $50 \div 4$ ); round remainders up or down, depending on the context

Understand that division is the inverse of multiplication and vice versa; use this to derive and record related multiplication and division number sentences

Find unit fractions of numbers and quantities (e.g.  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$  and  $\frac{1}{6}$  of 12 litres)

Key objectives are in bold.

## Most children learn to:

### Understanding shape

Relate 2-D shapes and 3-D solids to drawings of them; describe, visualise, classify, draw and make the shapes

**Draw and complete shapes with reflective symmetry; draw the reflection of a shape in a mirror line along one side**

Read and record the vocabulary of position, direction and movement, using the four compass directions to describe movement about a grid

Use a set-square to draw right angles and to identify right angles in 2-D shapes; compare angles with a right angle; recognise that a straight line is equivalent to two right angles

### Measuring

Know the relationships between kilometres and metres, metres and centimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure and record measurements

**Read, to the nearest division and half-division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy**

Read the time on a 12-hour digital clock and to the nearest 5 minutes on an analogue clock; calculate time intervals and find start or end times for a given time interval

### Handling data

Answer a question by collecting, organising and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations; use ICT to create a simple bar chart

**Use Venn diagrams or Carroll diagrams to sort data and objects using more than one criterion**

# Core learning in mathematics by year

## Year 4

### Most children learn to:

#### Using and applying mathematics

Solve one-step and two-step problems involving numbers, money or measures, including time; choose and carry out appropriate calculations, using calculator methods where appropriate

Represent a puzzle or problem using number sentences, statements or diagrams; use these to solve the problem; present and interpret the solution in the context of the problem

Suggest a line of enquiry and the strategy needed to follow it; collect, organise and interpret selected information to find answers

Identify and use patterns, relationships and properties of numbers or shapes; investigate a statement involving numbers and test it with examples

Report solutions to puzzles and problems, giving explanations and reasoning orally and in writing, using diagrams and symbols

#### Counting and understanding number

Recognise and continue number sequences formed by counting on or back in steps of constant size

Partition, round and order four-digit whole numbers; use positive and negative numbers in context and position them on a number line; state inequalities using the symbols  $<$  and  $>$  (e.g.  $-3 > -5$ ,  $-1 < +1$ )

Use decimal notation for tenths and hundredths and partition decimals; relate the notation to money and measurement; position one-place and two-place decimals on a number line

Recognise the equivalence between decimal and fraction forms of one half, quarters, tenths and hundredths

**Use diagrams to identify equivalent fractions (e.g.  $\frac{6}{8}$  and  $\frac{3}{4}$ , or  $\frac{70}{100}$  and  $\frac{7}{10}$ ); interpret mixed numbers and position them on a number line (e.g.  $3\frac{1}{2}$ )**

Use the vocabulary of ratio and proportion to describe the relationship between two quantities (e.g. 'There are 2 red beads to every 3 blue beads, or 2 beads in every 5 beads are red'); estimate a proportion (e.g. 'About one quarter of the apples in the box are green')

#### Knowing and using number facts

Use knowledge of addition and subtraction facts and place value to derive sums and differences of pairs of multiples of 10, 100 or 1000

Identify the doubles of two-digit numbers; use these to calculate doubles of multiples of 10 and 100 and derive the corresponding halves

**Derive and recall multiplication facts up to  $10 \times 10$ , the corresponding division facts and multiples of numbers to 10 up to the tenth multiple**

Use knowledge of rounding, number operations and inverses to estimate and check calculations

Identify pairs of fractions that total 1

#### Calculating

**Add or subtract mentally pairs of two-digit whole numbers (e.g.  $47 + 58$ ,  $91 - 35$ )**

Refine and use efficient written methods to add and subtract two-digit and three-digit whole numbers and £.p

Multiply and divide numbers to 1000 by 10 and then 100 (whole-number answers), understanding the effect; relate to scaling up or down

**Develop and use written methods to record, support and explain multiplication and division of two-digit numbers by a one-digit number, including division with remainders (e.g.  $15 \times 9$ ,  $98 \div 6$ )**

Find fractions of numbers, quantities or shapes (e.g.  $\frac{1}{5}$  of 30 plums,  $\frac{3}{8}$  of a 6 by 4 rectangle)

Use a calculator to carry out one-step and two-step calculations involving all four operations; recognise negative numbers in the display, correct mistaken entries and interpret the display correctly in the context of money

Key objectives are in bold.



## Most children learn to:

### Understanding shape

Draw polygons and classify them by identifying their properties, including their line symmetry

Visualise 3-D objects from 2-D drawings; make nets of common solids

Recognise horizontal and vertical lines; use the eight compass points to describe direction; describe and identify the position of a square on a grid of squares

**Know that angles are measured in degrees and that one whole turn is  $360^\circ$ ; compare and order angles less than  $180^\circ$**

### Measuring

**Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning of 'kilo', 'centi' and 'milli' and, where appropriate, use decimal notation to record measurements (e.g. 1.3 m or 0.6 kg)**

Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit

Draw rectangles and measure and calculate their perimeters; find the area of rectilinear shapes drawn on a square grid by counting squares

Read time to the nearest minute; use am, pm and 12-hour clock notation; choose units of time to measure time intervals; calculate time intervals from clocks and timetables

### Handling data

**Answer a question by identifying what data to collect; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate**

Compare the impact of representations where scales have intervals of differing step size

# Core learning in mathematics by year

## Year 5

### Most children learn to:

#### Using and applying mathematics

Solve one-step and two-step problems involving whole numbers and decimals and all four operations, choosing and using appropriate calculation strategies, including calculator use

Represent a puzzle or problem by identifying and recording the information or calculations needed to solve it; find possible solutions and confirm them in the context of the problem

Plan and pursue an enquiry; present evidence by collecting, organising and interpreting information; suggest extensions to the enquiry

Explore patterns, properties and relationships and propose a general statement involving numbers or shapes; identify examples for which the statement is true or false

Explain reasoning using diagrams, graphs and text; refine ways of recording using images and symbols

#### Counting and understanding number

Count from any given number in whole-number and decimal steps, extending beyond zero when counting backwards; relate the numbers to their position on a number line

**Explain what each digit represents in whole numbers and decimals with up to two places, and partition, round and order these numbers**

Express a smaller whole number as a fraction of a larger one (e.g. recognise that 5 out of 8 is  $\frac{5}{8}$ ); find equivalent fractions (e.g.  $\frac{7}{10} = \frac{14}{20}$ , or  $\frac{19}{10} = 1\frac{9}{10}$ ); relate fractions to their decimal representations

Understand percentage as the number of parts in every 100 and express tenths and hundredths as percentages

Use sequences to scale numbers up or down; solve problems involving proportions of quantities (e.g. decrease quantities in a recipe designed to feed six people)

#### Knowing and using number facts

**Use knowledge of place value and addition and subtraction of two-digit numbers to derive sums and differences and doubles and halves of decimals (e.g.  $6.5 \pm 2.7$ , half of 5.6, double 0.34)**

Recall quickly multiplication facts up to  $10 \times 10$  and use them to multiply pairs of multiples of 10 and 100; derive quickly corresponding division facts

Identify pairs of factors of two-digit whole numbers and find common multiples (e.g. for 6 and 9)

Use knowledge of rounding, place value, number facts and inverse operations to estimate and check calculations

#### Calculating

Extend mental methods for whole-number calculations, for example to multiply a two-digit by a one-digit number (e.g.  $12 \times 9$ ), to multiply by 25 (e.g.  $16 \times 25$ ), to subtract one near-multiple of 1000 from another (e.g.  $6070 - 4097$ )

**Use efficient written methods to add and subtract whole numbers and decimals with up to two places**

Use understanding of place value to multiply and divide whole numbers and decimals by 10, 100 or 1000

Refine and use efficient written methods to multiply and divide  $HTU \times U$ ,  $TU \times TU$ ,  $U.t \times U$  and  $HTU \div U$

Find fractions using division (e.g.  $\frac{1}{100}$  of 5 kg), and percentages of numbers and quantities (e.g. 10%, 5% and 15% of £80)

Use a calculator to solve problems, including those involving decimals or fractions (e.g. find  $\frac{3}{4}$  of 150 g); interpret the display correctly in the context of measurement

Key objectives are in bold.

## Most children learn to:

### Understanding shape

Identify, visualise and describe properties of rectangles, triangles, regular polygons and 3-D solids; use knowledge of properties to draw 2-D shapes, and to identify and draw nets of 3-D shapes

**Read and plot coordinates in the first quadrant; recognise parallel and perpendicular lines in grids and shapes; use a set-square and ruler to draw shapes with perpendicular or parallel sides**

Complete patterns with up to two lines of symmetry; draw the position of a shape after a reflection or translation

Estimate, draw and measure acute and obtuse angles using an angle measurer or protractor to a suitable degree of accuracy; calculate angles in a straight line

### Measuring

Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy (e.g. the nearest centimetre); convert larger to smaller units using decimals to one place (e.g. change 2.6 kg to 2600 g)

Interpret a reading that lies between two unnumbered divisions on a scale

**Draw and measure lines to the nearest millimetre; measure and calculate the perimeter of regular and irregular polygons; use the formula for the area of a rectangle to calculate the rectangle's area**

Read timetables and time using 24-hour clock notation; use a calendar to calculate time intervals

### Handling data

Describe the occurrence of familiar events using the language of chance or likelihood

Answer a set of related questions by collecting, selecting and organising relevant data; draw conclusions, using ICT to present features, and identify further questions to ask

**Construct frequency tables, pictograms and bar and line graphs to represent the frequencies of events and changes over time**

Find and interpret the mode of a set of data

# Core learning in mathematics by year

## Year 6

### Most children learn to:

#### Using and applying mathematics

Solve multi-step problems, and problems involving fractions, decimals and percentages; choose and use appropriate calculation strategies at each stage, including calculator use

Tabulate systematically the information in a problem or puzzle; identify and record the steps or calculations needed to solve it, using symbols where appropriate; interpret solutions in the original context and check their accuracy

Suggest, plan and develop lines of enquiry; collect, organise and represent information, interpret results and review methods; identify and answer related questions

Represent and interpret sequences, patterns and relationships involving numbers and shapes; suggest and test hypotheses; construct and use simple expressions and formulae in words then symbols (e.g. the cost of c pens at 15 pence each is 15c pence)

Explain reasoning and conclusions, using words, symbols or diagrams as appropriate

#### Counting and understanding number

Find the difference between a positive and a negative integer, or two negative integers, in context

Use decimal notation for tenths, hundredths and thousandths; partition, round and order decimals with up to three places, and position them on the number line

Express a larger whole number as a fraction of a smaller one (e.g. recognise that 8 slices of a 5-slice pizza represents  $\frac{8}{5}$  or  $1\frac{3}{5}$  pizzas); simplify fractions by cancelling common factors; order a set of fractions by converting them to fractions with a common denominator

**Express one quantity as a percentage of another (e.g. express £400 as a percentage of £1000); find equivalent percentages, decimals and fractions**

Solve simple problems involving direct proportion by scaling quantities up or down

#### Knowing and using number facts

**Use knowledge of place value and multiplication facts to  $10 \times 10$  to derive related multiplication and division facts involving decimals (e.g.  $0.8 \times 7$ ,  $4.8 \div 6$ )**

Use knowledge of multiplication facts to derive quickly squares of numbers to  $12 \times 12$  and the corresponding squares of multiples of 10

Recognise that prime numbers have only two factors and identify prime numbers less than 100; find the prime factors of two-digit numbers

Use approximations, inverse operations and tests of divisibility to estimate and check results

#### Calculating

Calculate mentally with integers and decimals:  $U.t \pm U.t$ ,  $TU \times U$ ,  $TU \div U$ ,  $U.t \times U$ ,  $U.t \div U$

**Use efficient written methods to add and subtract integers and decimals, to multiply and divide integers and decimals by a one-digit integer, and to multiply two-digit and three-digit integers by a two-digit integer**

Relate fractions to multiplication and division (e.g.  $6 \div 2 = \frac{1}{2}$  of 6 =  $6 \times \frac{1}{2}$ ); express a quotient as a fraction or decimal (e.g.  $67 \div 5 = 13.4$  or  $13\frac{2}{5}$ ); find fractions and percentages of whole-number quantities (e.g.  $\frac{5}{8}$  of 96, 65% of £260)

Use a calculator to solve problems involving multi-step calculations

Key objectives are in bold.

## Most children learn to:

### Understanding shape

Describe, identify and visualise parallel and perpendicular edges or faces; use these properties to classify 2-D shapes and 3-D solids

Make and draw shapes with increasing accuracy and apply knowledge of their properties

**Visualise and draw on grids of different types where a shape will be after reflection, after translations, or after rotation through  $90^\circ$  or  $180^\circ$  about its centre or one of its vertices**

Use coordinates in the first quadrant to draw, locate and complete shapes that meet given properties

Estimate angles, and use a protractor to measure and draw them, on their own and in shapes; calculate angles in a triangle or around a point

### Measuring

**Select and use standard metric units of measure and convert between units using decimals to two places (e.g. change 2.75 litres to 2750 ml, or vice versa)**

Read and interpret scales on a range of measuring instruments, recognising that the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments

Calculate the perimeter and area of rectilinear shapes; estimate the area of an irregular shape by counting squares

### Handling data

Describe and predict outcomes from data using the language of chance or likelihood

**Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask**

Construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts

Describe and interpret results and solutions to problems using the mode, range, median and mean

# Core learning in mathematics by year

## Year 6 progression to Year 7

### Most children learn to:

#### Using and applying mathematics

Solve problems by breaking down complex calculations into simpler steps; choose and use operations and calculation strategies appropriate to the numbers and context; try alternative approaches to overcome difficulties; present, interpret and compare solutions

Represent information or unknown numbers in a problem, for example in a table, formula or equation; explain solutions in the context of the problem

Develop and evaluate lines of enquiry; identify, collect, organise and analyse relevant information; decide how best to represent conclusions and what further questions to ask

Generate sequences and describe the general term; use letters and symbols to represent unknown numbers or variables; represent simple relationships as graphs

Explain and justify reasoning and conclusions, using notation, symbols and diagrams; find a counter-example to disprove a conjecture; use step-by-step deductions to solve problems involving shapes

#### Counting and understanding number

Compare and order integers and decimals in different contexts

Order a set of fractions by converting them to decimals

Recognise approximate proportions of a whole and use fractions and percentages to describe and compare them, for example when interpreting pie charts

**Use ratio notation, reduce a ratio to its simplest form and divide a quantity into two parts in a given ratio; solve simple problems involving ratio and direct proportion (e.g. identify the quantities needed to make a fruit drink by mixing water and juice in a given ratio)**

#### Knowing and using number facts

Consolidate rapid recall of number facts, including multiplication facts to  $10 \times 10$  and the associated division facts

Recognise the square roots of perfect squares to  $12 \times 12$

Recognise and use multiples, factors, divisors, common factors, highest common factors and lowest common multiples in simple cases

**Make and justify estimates and approximations to calculations**

#### Calculating

Understand how the commutative, associative and distributive laws, and the relationships between operations, including inverse operations, can be used to calculate more efficiently; use the order of operations, including brackets

Consolidate and extend mental methods of calculation to include decimals, fractions and percentages

Use standard column procedures to add and subtract integers and decimals, and to multiply two-digit and three-digit integers by a one-digit or two-digit integer; extend division to dividing three-digit integers by a two-digit integer

Calculate percentage increases or decreases and fractions of quantities and measurements (integer answers)

**Use bracket keys and the memory of a calculator to carry out calculations with more than one step; use the square root key**

Key objectives are in bold.

## Most children learn to:

### Understanding shape

Use correctly the vocabulary, notation and labelling conventions for lines, angles and shapes

Extend knowledge of properties of triangles and quadrilaterals and use these to visualise and solve problems, explaining reasoning with diagrams

**Know the sum of angles on a straight line, in a triangle and at a point, and recognise vertically opposite angles**

Use all four quadrants to find coordinates of points determined by geometric information

Identify all the symmetries of 2-D shapes; transform images using ICT

Construct a triangle given two sides and the included angle

### Measuring

Convert between related metric units using decimals to three places (e.g. convert 1375 mm to 1.375 m, or vice versa)

**Solve problems by measuring, estimating and calculating; measure and calculate using imperial units still in everyday use; know their approximate metric values**

Calculate the area of right-angled triangles given the lengths of the two perpendicular sides, and the volume and surface area of cubes and cuboids

### Handling data

**Understand and use the probability scale from 0 to 1; find and justify probabilities based on equally likely outcomes in simple contexts**

Explore hypotheses by planning surveys or experiments to collect small sets of discrete or continuous data; select, process, present and interpret the data, using ICT where appropriate; identify ways to extend the survey or experiment

Construct, interpret and compare graphs and diagrams that represent data, for example compare proportions in two pie charts that represent different totals

Write a short report of a statistical enquiry and illustrate with appropriate diagrams, graphs and charts, using ICT as appropriate; justify the choice of what is presented

# Core learning in mathematics by strand



# Core learning in mathematics by strand

## Using and applying mathematics

### Most children learn to:

Foundation Stage	Year 1	Year 2	Year 3
<p><b>Use developing mathematical ideas and methods to solve practical problems</b></p> <p>Match sets of objects to numerals that represent the number of objects</p> <p>Sort objects, making choices and justifying decisions</p>	<p>Solve problems involving counting, adding, subtracting, doubling or halving in the context of numbers, measures or money, for example to 'pay' and 'give change'</p> <p>Describe a puzzle or problem using numbers, practical materials and diagrams; use these to solve the problem and set the solution in the original context</p>	<p>Solve problems involving addition, subtraction, multiplication or division in contexts of numbers, measures or pounds and pence</p> <p>Identify and record the information or calculation needed to solve a puzzle or problem; carry out the steps or calculations and check the solution in the context of the problem</p>	<p>Solve one-step and two-step problems involving numbers, money or measures, including time, choosing and carrying out appropriate calculations</p>
<p><b>Talk about, recognise and recreate simple patterns</b></p> <p>Describe solutions to practical problems, drawing on experience, talking about their own ideas, methods and choices</p>	<p>Answer a question by selecting and using suitable equipment, and sorting information, shapes or objects; display results using tables and pictures</p> <p>Describe simple patterns and relationships involving numbers or shapes; decide whether examples satisfy given conditions</p> <p>Describe ways of solving puzzles and problems, explaining choices and decisions orally or using pictures</p>	<p>Follow a line of enquiry; answer questions by choosing and using suitable equipment and selecting, organising and presenting information in lists, tables and simple diagrams</p> <p>Describe patterns and relationships involving numbers or shapes, make predictions and test these with examples</p> <p>Present solutions to puzzles and problems in an organised way; explain decisions, methods and results in pictorial, spoken or written form, using mathematical language and number sentences</p>	<p>Represent the information in a puzzle or problem using numbers, images or diagrams; use these to find a solution and present it in context, where appropriate using £.p notation or units of measure</p> <p>Follow a line of enquiry by deciding what information is important; make and use lists, tables and graphs to organise and interpret the information</p> <p>Identify patterns and relationships involving numbers or shapes, and use these to solve problems</p> <p>Describe and explain methods, choices and solutions to puzzles and problems, orally and in writing, using pictures and diagrams</p>

Foundation Stage objectives in bold refer to the Early Learning Goals.

## Most children learn to:

Year 4	Year 5	Year 6	Year 6 progression to Year 7
Solve one-step and two-step problems involving numbers, money or measures, including time; choose and carry out appropriate calculations, using calculator methods where appropriate	Solve one-step and two-step problems involving whole numbers and decimals and all four operations, choosing and using appropriate calculation strategies, including calculator use	Solve multi-step problems, and problems involving fractions, decimals and percentages; choose and use appropriate calculation strategies at each stage, including calculator use	Solve problems by breaking down complex calculations into simpler steps; choose and use operations and calculation strategies appropriate to the numbers and context; try alternative approaches to overcome difficulties; present, interpret and compare solutions
Represent a puzzle or problem using number sentences, statements or diagrams; use these to solve the problem; present and interpret the solution in the context of the problem	Represent a puzzle or problem by identifying and recording the information or calculations needed to solve it; find possible solutions and confirm them in the context of the problem	Tabulate systematically the information in a problem or puzzle; identify and record the steps or calculations needed to solve it, using symbols where appropriate; interpret solutions in the original context and check their accuracy	Represent information or unknown numbers in a problem, for example in a table, formula or equation; explain solutions in the context of the problem
Suggest a line of enquiry and the strategy needed to follow it; collect, organise and interpret selected information to find answers	Plan and pursue an enquiry; present evidence by collecting, organising and interpreting information; suggest extensions to the enquiry	Suggest, plan and develop lines of enquiry; collect, organise and represent information, interpret results and review methods; identify and answer related questions	Develop and evaluate lines of enquiry; identify, collect, organise and analyse relevant information; decide how best to represent conclusions and what further questions to ask
Identify and use patterns, relationships and properties of numbers or shapes; investigate a statement involving numbers and test it with examples	Explore patterns, properties and relationships and propose a general statement involving numbers or shapes; identify examples for which the statement is true or false	Represent and interpret sequences, patterns and relationships involving numbers and shapes; suggest and test hypotheses; construct and use simple expressions and formulae in words then symbols (e.g. the cost of $c$ pens at 15 pence each is $15c$ pence)	Generate sequences and describe the general term; use letters and symbols to represent unknown numbers or variables; represent simple relationships as graphs
Report solutions to puzzles and problems, giving explanations and reasoning orally and in writing, using diagrams and symbols	Explain reasoning using diagrams, graphs and text; refine ways of recording using images and symbols	Explain reasoning and conclusions, using words, symbols or diagrams as appropriate	Explain and justify reasoning and conclusions, using notation, symbols and diagrams; find a counter-example to disprove a conjecture; use step-by-step deductions to solve problems involving shapes

# Core learning in mathematics by strand

## Using and applying mathematics

# Core learning in mathematics by strand

## Counting and understanding number

### Most children learn to:

Foundation Stage	Year 1	Year 2	Year 3
<p><b>Say and use number names in order in familiar contexts</b></p> <p>Know that numbers identify how many objects are in a set</p>	<p>Count reliably at least 20 objects, recognising that when rearranged the number of objects stays the same; estimate a number of objects that can be checked by counting</p>	<p>Read and write two-digit and three-digit numbers in figures and words; describe and extend number sequences and recognise odd and even numbers</p>	<p>Read, write and order whole numbers to at least 1000 and position them on a number line; count on from and back to zero in single-digit steps or multiples of 10</p>
<p><b>Count reliably up to 10 everyday objects</b></p> <p>Estimate how many objects they can see and check by counting</p> <p>Count aloud in ones, twos, fives or tens</p>	<p>Compare and order numbers, using the related vocabulary; use the equals (=) sign</p> <p><b>Read and write numerals from 0 to 20, then beyond; use knowledge of place value to position these numbers on a number track and number line</b></p>	<p><b>Count up to 100 objects by grouping them and counting in tens, fives or twos; explain what each digit in a two-digit number represents, partition two-digit numbers in different ways, including into multiples of 10 and 1</b></p> <p>Order two-digit numbers and position them on a number line; use the greater than (&gt;) and less than (&lt;) signs</p>	<p><b>Partition three-digit numbers into multiples of 100, 10 and 1 in different ways</b></p> <p>Round two-digit or three-digit numbers to the nearest 10 or 100 and give estimates for their sums and differences</p>
<p><b>Use language such as 'more' or 'less' to compare two numbers</b></p> <p>Use ordinal numbers in different contexts</p>	<p>Say the number that is 1 more or less than any given number, and 10 more or less for multiples of 10</p> <p>Use the vocabulary of halves and quarters in context</p>	<p>Estimate a number of objects; round two-digit numbers to the nearest 10</p> <p>Find one half, one quarter and three quarters of shapes and sets of objects</p>	<p>Read and write proper fractions (e.g. <math>\frac{3}{7}</math>, <math>\frac{9}{10}</math>), interpreting the denominator as the parts of a whole and the numerator as the number of parts; identify and estimate fractions of shapes; use diagrams to compare fractions and establish equivalents</p>
<p><b>Recognise numerals 1 to 9</b></p>			

Foundation Stage objectives in bold refer to the Early Learning Goals. Other objectives in bold are key objectives.

## Most children learn to:

Year 4	Year 5	Year 6	Year 6 progression to Year 7
Recognise and continue number sequences formed by counting on or back in steps of constant size	Count from any given number in whole-number and decimal steps, extending beyond zero when counting backwards; relate the numbers to their position on a number line	Find the difference between a positive and a negative integer, or two negative integers, in context	Compare and order integers and decimals in different contexts
Partition, round and order four-digit whole numbers; use positive and negative numbers in context and position them on a number line; state inequalities using the symbols $<$ and $>$ (e.g. $-3 > -5$ , $-1 < +1$ )	<b>Explain what each digit represents in whole numbers and decimals with up to two places, and partition, round and order these numbers</b>	Use decimal notation for tenths, hundredths and thousandths; partition, round and order decimals with up to three places, and position them on the number line	Order a set of fractions by converting them to decimals
Use decimal notation for tenths and hundredths and partition decimals; relate the notation to money and measurement; position one-place and two-place decimals on a number line	Express a smaller whole number as a fraction of a larger one (e.g. recognise that 5 out of 8 is $\frac{5}{8}$ ); find equivalent fractions (e.g. $\frac{7}{10} = \frac{14}{20}$ , or $\frac{19}{10} = 1\frac{9}{10}$ ); relate fractions to their decimal representations	Express a larger whole number as a fraction of a smaller one (e.g. recognise that 8 slices of a 5-slice pizza represents $\frac{8}{5}$ or $1\frac{3}{5}$ pizzas); simplify fractions by cancelling common factors; order a set of fractions by converting them to fractions with a common denominator	Recognise approximate proportions of a whole and use fractions and percentages to describe and compare them, for example when interpreting pie charts
Recognise the equivalence between decimal and fraction forms of one half, quarters, tenths and hundredths	Understand percentage as the number of parts in every 100 and express tenths and hundredths as percentages	<b>Express one quantity as a percentage of another (e.g. express £400 as a percentage of £1000); find equivalent percentages, decimals and fractions</b>	<b>Use ratio notation, reduce a ratio to its simplest form and divide a quantity into two parts in a given ratio; solve simple problems involving ratio and direct proportion (e.g. identify the quantities needed to make a fruit drink by mixing water and juice in a given ratio)</b>
<b>Use diagrams to identify equivalent fractions (e.g. <math>\frac{6}{8}</math> and <math>\frac{3}{4}</math>, or <math>\frac{70}{100}</math> and <math>\frac{7}{10}</math>); interpret mixed numbers and position them on a number line (e.g. <math>3\frac{1}{2}</math>)</b>	Use sequences to scale numbers up or down; solve problems involving proportions of quantities (e.g. decrease quantities in a recipe designed to feed six people)	Solve simple problems involving direct proportion by scaling quantities up or down	
Use the vocabulary of ratio and proportion to describe the relationship between two quantities (e.g. 'There are 2 red beads to every 3 blue beads, or 2 beads in every 5 beads are red'); estimate a proportion (e.g. 'About one quarter of the apples in the box are green')			

# Core learning in mathematics by strand

## Counting and understanding number

# Core learning in mathematics by strand

## Knowing and using number facts

### Most children learn to:

Foundation Stage	Year 1	Year 2	Year 3
<p>Observe number relationships and patterns in the environment and use these to derive facts</p> <p><b>Find one more or one less than a number from 1 to 10</b></p> <p>Select two groups of objects to make a given total of objects</p>	<p><b>Derive and recall all pairs of numbers with a total of 10 and addition facts for totals to at least 5; work out the corresponding subtraction facts</b></p> <p>Count on or back in ones, twos, fives and tens and use this knowledge to derive the multiples of 2, 5 and 10 to the tenth multiple</p> <p>Recall the doubles of all numbers to at least 10</p>	<p><b>Derive and recall all addition and subtraction facts for each number to at least 10, all pairs with totals to 20 and all pairs of multiples of 10 with totals up to 100</b></p> <p>Understand that halving is the inverse of doubling and derive and recall doubles of all numbers to 20, and the corresponding halves</p> <p>Derive and recall multiplication facts for the 2, 5 and 10 times-tables and the related division facts; recognise multiples of 2, 5 and 10</p> <p>Use knowledge of number facts and operations to estimate and check answers to calculations</p>	<p><b>Derive and recall all addition and subtraction facts for each number to 20, sums and differences of multiples of 10 and number pairs that total 100</b></p> <p>Derive and recall multiplication facts for the 2, 3, 4, 5, 6 and 10 times-tables and the corresponding division facts; recognise multiples of 2, 5 or 10 up to 1000</p> <p>Use knowledge of number operations and corresponding inverses, including doubling and halving, to estimate and check calculations</p>

Foundation Stage objectives in bold refer to the Early Learning Goals. Other objectives in bold are key objectives.

## Most children learn to:

Year 4	Year 5	Year 6	Year 6 progression to Year 7
<p>Use knowledge of addition and subtraction facts and place value to derive sums and differences of pairs of multiples of 10, 100 or 1000</p> <p>Identify the doubles of two-digit numbers; use these to calculate doubles of multiples of 10 and 100 and derive the corresponding halves</p> <p><b>Derive and recall multiplication facts up to <math>10 \times 10</math>, the corresponding division facts and multiples of numbers to 10 up to the tenth multiple</b></p> <p>Use knowledge of rounding, number operations and inverses to estimate and check calculations</p> <p>Identify pairs of fractions that total 1</p>	<p><b>Use knowledge of place value and addition and subtraction of two-digit numbers to derive sums and differences and doubles and halves of decimals (e.g. <math>6.5 \pm 2.7</math>, half of 5.6, double 0.34)</b></p> <p>Recall quickly multiplication facts up to <math>10 \times 10</math> and use them to multiply pairs of multiples of 10 and 100; derive quickly corresponding division facts</p> <p>Identify pairs of factors of two-digit whole numbers and find common multiples (e.g. for 6 and 9)</p> <p>Use knowledge of rounding, place value, number facts and inverse operations to estimate and check calculations</p>	<p><b>Use knowledge of place value and multiplication facts to <math>10 \times 10</math> to derive related multiplication and division facts involving decimals (e.g. <math>0.8 \times 7</math>, <math>4.8 \div 6</math>)</b></p> <p>Use knowledge of multiplication facts to derive quickly squares of numbers to <math>12 \times 12</math> and the corresponding squares of multiples of 10</p> <p>Recognise that prime numbers have only two factors and identify prime numbers less than 100; find the prime factors of two-digit numbers</p> <p>Use approximations, inverse operations and tests of divisibility to estimate and check results</p>	<p>Consolidate rapid recall of number facts, including multiplication facts to <math>10 \times 10</math> and the associated division facts</p> <p>Recognise the square roots of perfect squares to <math>12 \times 12</math></p> <p>Recognise and use multiples, factors, divisors, common factors, highest common factors and lowest common multiples in simple cases</p> <p><b>Make and justify estimates and approximations to calculations</b></p>

# Core learning in mathematics by strand

## Calculating

### Most children learn to:

Foundation Stage	Year 1	Year 2	Year 3
<p><b>Begin to relate addition to combining two groups of objects and subtraction to ‘taking away’</b></p> <p><b>In practical activities and discussion begin to use the vocabulary involved in adding and subtracting</b></p> <p>Count repeated groups of the same size</p> <p>Share objects into equal groups and count how many in each group</p>	<p>Relate addition to counting on; recognise that addition can be done in any order; use practical and informal written methods to support the addition of a one-digit number or a multiple of 10 to a one-digit or two-digit number</p> <p>Understand subtraction as ‘take away’ and find a ‘difference’ by counting up; use practical and informal written methods to support the subtraction of a one-digit number from a one-digit or two-digit number and a multiple of 10 from a two-digit number</p> <p><b>Use the vocabulary related to addition and subtraction and symbols to describe and record addition and subtraction number sentences</b></p> <p>Solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups</p>	<p><b>Add or subtract mentally a one-digit number or a multiple of 10 to or from any two-digit number; use practical and informal written methods to add and subtract two-digit numbers</b></p> <p>Understand that subtraction is the inverse of addition and vice versa; use this to derive and record related addition and subtraction number sentences</p> <p>Represent repeated addition and arrays as multiplication, and sharing and repeated subtraction (grouping) as division; use practical and informal written methods and related vocabulary to support multiplication and division, including calculations with remainders</p> <p><b>Use the symbols +, −, ×, ÷ and = to record and interpret number sentences involving all four operations; calculate the value of an unknown in a number sentence (e.g. <math>\square \div 2 = 6</math>, <math>30 - \square = 24</math>)</b></p>	<p><b>Add or subtract mentally combinations of one-digit and two-digit numbers</b></p> <p>Develop and use written methods to record, support or explain addition and subtraction of two-digit and three-digit numbers</p> <p>Multiply one-digit and two-digit numbers by 10 or 100, and describe the effect</p> <p>Use practical and informal written methods to multiply and divide two-digit numbers (e.g. <math>13 \times 3</math>, <math>50 \div 4</math>); round remainders up or down, depending on the context</p> <p>Understand that division is the inverse of multiplication and vice versa; use this to derive and record related multiplication and division number sentences</p> <p>Find unit fractions of numbers and quantities (e.g. <math>\frac{1}{2}</math>, <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math> and <math>\frac{1}{6}</math> of 12 litres)</p>

Foundation Stage objectives in bold refer to the Early Learning Goals. Other objectives in bold are key objectives.

## Most children learn to:

Year 4	Year 5	Year 6	Year 6 progression to Year 7
<p><b>Add or subtract mentally pairs of two-digit whole numbers (e.g. 47 + 58, 91 – 35)</b></p> <p>Refine and use efficient written methods to add and subtract two-digit and three-digit whole numbers and £.p</p> <p>Multiply and divide numbers to 1000 by 10 and then 100 (whole-number answers), understanding the effect; relate to scaling up or down</p> <p><b>Develop and use written methods to record, support and explain multiplication and division of two-digit numbers by a one-digit number, including division with remainders (e.g. 15 × 9, 98 ÷ 6)</b></p> <p>Find fractions of numbers, quantities or shapes (e.g. <math>\frac{1}{5}</math> of 30 plums, <math>\frac{3}{8}</math> of a 6 by 4 rectangle)</p> <p>Use a calculator to carry out one-step and two-step calculations involving all four operations; recognise negative numbers in the display, correct mistaken entries and interpret the display correctly in the context of money</p>	<p>Extend mental methods for whole-number calculations, for example to multiply a two-digit by a one-digit number (e.g. <math>12 \times 9</math>), to multiply by 25 (e.g. <math>16 \times 25</math>), to subtract one near-multiple of 1000 from another (e.g. <math>6070 - 4097</math>)</p> <p><b>Use efficient written methods to add and subtract whole numbers and decimals with up to two places</b></p> <p>Use understanding of place value to multiply and divide whole numbers and decimals by 10, 100 or 1000</p> <p>Refine and use efficient written methods to multiply and divide HTU × U, TU × TU, U.t × U and HTU ÷ U</p> <p>Find fractions using division (e.g. <math>\frac{1}{100}</math> of 5 kg), and percentages of numbers and quantities (e.g. 10%, 5% and 15% of £80)</p> <p>Use a calculator to solve problems, including those involving decimals or fractions (e.g. find <math>\frac{3}{4}</math> of 150 g); interpret the display correctly in the context of measurement</p>	<p>Calculate mentally with integers and decimals: U.t ± U.t, TU × U, TU ÷ U, U.t × U, U.t ÷ U</p> <p><b>Use efficient written methods to add and subtract integers and decimals, to multiply and divide integers and decimals by a one-digit integer, and to multiply two-digit and three-digit integers by a two-digit integer</b></p> <p>Relate fractions to multiplication and division (e.g. <math>6 \div 2 = \frac{1}{2}</math> of 6 = <math>6 \times \frac{1}{2}</math>); express a quotient as a fraction or decimal (e.g. <math>67 \div 5 = 13.4</math> or <math>13\frac{2}{5}</math>); find fractions and percentages of whole-number quantities (e.g. <math>\frac{5}{8}</math> of 96, 65% of £260)</p> <p>Use a calculator to solve problems involving multi-step calculations</p>	<p>Understand how the commutative, associative and distributive laws, and the relationships between operations, including inverse operations, can be used to calculate more efficiently; use the order of operations, including brackets</p> <p>Consolidate and extend mental methods of calculation to include decimals, fractions and percentages</p> <p>Use standard column procedures to add and subtract integers and decimals, and to multiply two-digit and three-digit integers by a one-digit or two-digit integer; extend division to dividing three-digit integers by a two-digit integer</p> <p>Calculate percentage increases or decreases and fractions of quantities and measurements (integer answers)</p> <p><b>Use bracket keys and the memory of a calculator to carry out calculations with more than one step; use the square root key</b></p>

# Core learning in mathematics by strand

## Calculating



# Core learning in mathematics by strand

## Understanding shape

### Most children learn to:

Foundation Stage	Year 1	Year 2	Year 3
Use familiar objects and common shapes to create and recreate patterns and build models	<b>Visualise and name common 2-D shapes and 3-D solids and describe their features; use them to make patterns, pictures and models</b>	<b>Visualise common 2-D shapes and 3-D solids; identify shapes from pictures of them in different positions and orientations; sort, make and describe shapes, referring to their properties</b>	Relate 2-D shapes and 3-D solids to drawings of them; describe, visualise, classify, draw and make the shapes
<b>Use language such as 'circle' or 'bigger' to describe the shape and size of solids and flat shapes</b>	Identify objects that turn about a point (e.g. scissors) or about a line (e.g. a door); recognise and make whole, half and quarter turns	Identify reflective symmetry in patterns and 2-D shapes and draw lines of symmetry in shapes	<b>Draw and complete shapes with reflective symmetry; draw the reflection of a shape in a mirror line along one side</b>
<b>Use everyday words to describe position</b>	Visualise and use everyday language to describe the position of objects and direction and distance when moving them, for example when placing or moving objects on a game board	Follow and give instructions involving position, direction and movement	Read and record the vocabulary of position, direction and movement, using the four compass directions to describe movement about a grid
		Recognise and use whole, half and quarter turns, both clockwise and anticlockwise; know that a right angle represents a quarter turn	Use a set-square to draw right angles and to identify right angles in 2-D shapes; compare angles with a right angle; recognise that a straight line is equivalent to two right angles

Foundation Stage objectives in bold refer to the Early Learning Goals. Other objectives in bold are key objectives.

## Most children learn to:

Year 4	Year 5	Year 6	Year 6 progression to Year 7
<p>Draw polygons and classify them by identifying their properties, including their line symmetry</p> <p>Visualise 3-D objects from 2-D drawings; make nets of common solids</p> <p>Recognise horizontal and vertical lines; use the eight compass points to describe direction; describe and identify the position of a square on a grid of squares</p> <p><b>Know that angles are measured in degrees and that one whole turn is <math>360^\circ</math>; compare and order angles less than <math>180^\circ</math></b></p>	<p>Identify, visualise and describe properties of rectangles, triangles, regular polygons and 3-D solids; use knowledge of properties to draw 2-D shapes, and to identify and draw nets of 3-D shapes</p> <p><b>Read and plot coordinates in the first quadrant; recognise parallel and perpendicular lines in grids and shapes; use a set-square and ruler to draw shapes with perpendicular or parallel sides</b></p> <p>Complete patterns with up to two lines of symmetry; draw the position of a shape after a reflection or translation</p> <p>Estimate, draw and measure acute and obtuse angles using an angle measurer or protractor to a suitable degree of accuracy; calculate angles in a straight line</p>	<p>Describe, identify and visualise parallel and perpendicular edges or faces; use these properties to classify 2-D shapes and 3-D solids</p> <p>Make and draw shapes with increasing accuracy and apply knowledge of their properties</p> <p><b>Visualise and draw on grids of different types where a shape will be after reflection, after translations, or after rotation through <math>90^\circ</math> or <math>180^\circ</math> about its centre or one of its vertices</b></p> <p>Use coordinates in the first quadrant to draw, locate and complete shapes that meet given properties</p> <p>Estimate angles, and use a protractor to measure and draw them, on their own and in shapes; calculate angles in a triangle or around a point</p>	<p>Use correctly the vocabulary, notation and labelling conventions for lines, angles and shapes</p> <p>Extend knowledge of properties of triangles and quadrilaterals and use these to visualise and solve problems, explaining reasoning with diagrams</p> <p><b>Know the sum of angles on a straight line, in a triangle and at a point, and recognise vertically opposite angles</b></p> <p>Use all four quadrants to find coordinates of points determined by geometric information</p> <p>Identify all the symmetries of 2-D shapes; transform images using ICT</p> <p>Construct a triangle given two sides and the included angle</p>

# Core learning in mathematics by strand

## Understanding shape

# Core learning in mathematics by strand

## Measuring

### Most children learn to:

Foundation Stage	Year 1	Year 2	Year 3
<p><b>Use language such as 'greater', 'smaller', 'heavier' or 'lighter' to compare quantities</b></p> <p>Use everyday language related to time; order and sequence familiar events and measure short periods of time</p>	<p><b>Estimate, measure, weigh and compare objects, choosing and using suitable uniform non-standard or standard units and measuring instruments (e.g. a lever balance, metre stick or measuring jug)</b></p> <p>Use vocabulary related to time; order days of the week and months; read the time to the hour and half hour</p>	<p>Estimate, compare and measure lengths, weights and capacities, choosing and using standard units (m, cm, kg, litre) and suitable measuring instruments</p> <p>Read the numbered divisions on a scale, and interpret the divisions between them (e.g. on a scale from 0 to 25 with intervals of 1 shown but only the divisions 0, 5, 10, 15 and 20 numbered); use a ruler to draw and measure lines to the nearest centimetre</p> <p><b>Use units of time (seconds, minutes, hours, days) and know the relationships between them; read the time to the quarter hour; identify time intervals, including those that cross the hour</b></p>	<p>Know the relationships between kilometres and metres, metres and centimetres, kilograms and grams, litres and millilitres; choose and use appropriate units to estimate, measure and record measurements</p> <p><b>Read, to the nearest division and half-division, scales that are numbered or partially numbered; use the information to measure and draw to a suitable degree of accuracy</b></p> <p>Read the time on a 12-hour digital clock and to the nearest 5 minutes on an analogue clock; calculate time intervals and find start or end times for a given time interval</p>

Foundation Stage objectives in bold refer to the Early Learning Goals. Other objectives in bold are key objectives.

## Most children learn to:

### Year 4

**Choose and use standard metric units and their abbreviations when estimating, measuring and recording length, weight and capacity; know the meaning of 'kilo', 'centi' and 'milli' and, where appropriate, use decimal notation to record measurements (e.g. 1.3 m or 0.6 kg)**

Interpret intervals and divisions on partially numbered scales and record readings accurately, where appropriate to the nearest tenth of a unit

Draw rectangles and measure and calculate their perimeters; find the area of rectilinear shapes drawn on a square grid by counting squares

Read time to the nearest minute; use am, pm and 12-hour clock notation; choose units of time to measure time intervals; calculate time intervals from clocks and timetables

### Year 5

Read, choose, use and record standard metric units to estimate and measure length, weight and capacity to a suitable degree of accuracy (e.g. the nearest centimetre); convert larger to smaller units using decimals to one place (e.g. change 2.6 kg to 2600 g)

Interpret a reading that lies between two unnumbered divisions on a scale

**Draw and measure lines to the nearest millimetre; measure and calculate the perimeter of regular and irregular polygons; use the formula for the area of a rectangle to calculate the rectangle's area**

Read timetables and time using 24-hour clock notation; use a calendar to calculate time intervals

### Year 6

**Select and use standard metric units of measure and convert between units using decimals to two places (e.g. change 2.75 litres to 2750 ml, or vice versa)**

Read and interpret scales on a range of measuring instruments, recognising that the measurement made is approximate and recording results to a required degree of accuracy; compare readings on different scales, for example when using different instruments

Calculate the perimeter and area of rectilinear shapes; estimate the area of an irregular shape by counting squares

### Year 6 progression to Year 7

Convert between related metric units using decimals to three places (e.g. convert 1375 mm to 1.375 m, or vice versa)

**Solve problems by measuring, estimating and calculating; measure and calculate using imperial units still in everyday use; know their approximate metric values**

Calculate the area of right-angled triangles given the lengths of the two perpendicular sides, and the volume and surface area of cubes and cuboids

# Core learning in mathematics by strand

## Handling data

### Most children learn to:

#### Foundation Stage

Sort familiar objects to identify their similarities and differences

Count how many objects share a particular property, presenting results using pictures, drawings or numerals

#### Year 1

**Answer a question by recording information in lists and tables; present outcomes using practical resources, pictures, block graphs or pictograms**

Use diagrams to sort objects into groups according to a given criterion; suggest a different criterion for grouping the same objects

#### Year 2

Answer a question by collecting and recording data in lists and tables; represent the data as block graphs or pictograms to show results; use ICT to organise and present data

**Use lists, tables and diagrams to sort objects; explain choices using appropriate language, including 'not'**

#### Year 3

Answer a question by collecting, organising and interpreting data; use tally charts, frequency tables, pictograms and bar charts to represent results and illustrate observations; use ICT to create a simple bar chart

**Use Venn diagrams or Carroll diagrams to sort data and objects using more than one criterion**

Foundation Stage objectives in bold refer to the Early Learning Goals. Other objectives in bold are key objectives.

## Most children learn to:

Year 4	Year 5	Year 6	Year 6 progression to Year 7
<p><b>Answer a question by identifying what data to collect; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate</b></p> <p>Compare the impact of representations where scales have intervals of differing step size</p>	<p>Describe the occurrence of familiar events using the language of chance or likelihood</p> <p>Answer a set of related questions by collecting, selecting and organising relevant data; draw conclusions, using ICT to present features, and identify further questions to ask</p> <p><b>Construct frequency tables, pictograms and bar and line graphs to represent the frequencies of events and changes over time</b></p> <p>Find and interpret the mode of a set of data</p>	<p>Describe and predict outcomes from data using the language of chance or likelihood</p> <p><b>Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask</b></p> <p>Construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs; interpret pie charts</p> <p>Describe and interpret results and solutions to problems using the mode, range, median and mean</p>	<p><b>Understand and use the probability scale from 0 to 1; find and justify probabilities based on equally likely outcomes in simple contexts</b></p> <p>Explore hypotheses by planning surveys or experiments to collect small sets of discrete or continuous data; select, process, present and interpret the data, using ICT where appropriate; identify ways to extend the survey or experiment</p> <p>Construct, interpret and compare graphs and diagrams that represent data, for example compare proportions in two pie charts that represent different totals</p> <p>Write a short report of a statistical enquiry and illustrate with appropriate diagrams, graphs and charts, using ICT as appropriate; justify the choice of what is presented</p>

# Overviews of learning

## The Early Years Foundation Stage (EYFS)

**Note:** This document is subject to amendment in response to the consultation on the EYFS. For the most up-to-date information refer to the electronic version of the Primary Framework for literacy and mathematics.

### Development and learning

Children are competent learners from birth. They develop and learn in all sorts of ways. Young babies will usually have had a wide range of different experiences and therefore have already acquired their own skills and interests when they join a setting. Some babies love to look at trees moving in the wind as they lie in the pram; others dislike lying down and like to watch the world from a bouncy chair. Some babies like to spend time lying awake on their stomachs and research shows that this has a positive impact on later development, including coordinated eye tracking when crawling and reading. During the first five years of their lives, the majority of children learn and develop very quickly. They do this through interaction with other people and through exploring the world around them.

Practitioners should, therefore, look carefully at the young children in their care and consider their needs, their interests and their stage of development. All the information gathered through such observations will help practitioners to plan a challenging and enjoyable curriculum across all six areas of learning and development. By the time children reach the end of EYFS it is the aspiration that the majority of them will have met most of the Early Learning Goals.

Development and learning are holistic. None of the six areas can be delivered in isolation from the others. They are equally important and depend on each other. One activity or experience can help to develop skills and understanding across several areas of learning and development. For example, children building with blocks may cooperate in carrying the heavy and large blocks, negotiate the best place to put them, compare the weight and dimensions of different blocks and act out an imaginary scene. Therefore, they may be developing language, mathematical, physical, personal and social competence through this one activity. Effective practitioners develop children's learning through planned, purposeful play, with a balance of adult-led and child-initiated activities.

### Play

Play underpins all development and learning for young children. Most children play spontaneously, although some may need adult support, and it is through play that they develop intellectually, creatively, physically, socially and emotionally. Babies and older children play differently. It is through adults valuing their solitary or parallel play and joining in with it that babies begin to learn about playing with others.

Through play, in a secure environment with effective adult support, children can:

- explore, develop and represent learning experiences that help them to make sense of the world
- practise and build up ideas, concepts and skills
- learn how to control impulses and understand the need for rules
- be alone, be alongside others or cooperate as they talk or rehearse their feelings
- take risks and make mistakes
- think creatively and imaginatively
- communicate with others as they investigate or solve problems
- express fears or relive anxious experiences in controlled and safe situations.

Well-planned play, both indoors and outdoors, is a key way in which practitioners support young children to learn with enjoyment and challenge. When playing, children behave in different ways: sometimes their play will be responsive or boisterous, sometimes they may describe and discuss what they are doing and sometimes they will be quiet and reflective as they play.

The role of the practitioner is crucial in:

- planning and resourcing a challenging environment
- supporting children's learning through planned play activity
- supporting and extending children's spontaneous play
- extending and developing children's language and communication in their play.

The ongoing cycle of thinking about development and assessing children's progress ('Development matters'), observing and assessing ('Look, listen and note'), planning and resourcing and learning and teaching ('Effective practice') enables practitioners to provide opportunities for all children to play, learn and succeed in an atmosphere of care and of feeling valued.

## **The learning and development requirements – subject to the outcomes of the consultation**

The requirements, which underpin the areas of learning and development and which all settings must follow, are as follows.

- Practitioners must ensure that the individual needs of all children are met, including additional or different provision required to meet particular individual needs.
- Parents, carers and families are central to the well-being of the child. Practitioners must therefore build positive relationships with parents or carers in order to work effectively with them and their children. Young children are vulnerable and learn to be independent by having someone they can depend upon. Providers must ensure that each child has a key person within the setting.
- No child should be excluded or disadvantaged because of ethnicity, culture or religion, home language, family background, SEN, disability, gender or ability. Providers must actively plan to meet their needs, and to promote equality of opportunity and anti-discriminatory practice.
- Schedules, routines and activities must flow with the child's needs, with practitioners planning for individual children using sensitive observational assessment. There must be no tests for children at any stage within the EYFS.
- Children learn by doing, rather than by being told. Learning is a shared process and children learn best when, with the support of a knowledgeable and trusted adult, they are actively involved and interested. Practitioners must therefore ensure a balance of adult-led and freely chosen or child-initiated activities, to be delivered through indoor and outdoor play. In order to deliver the maximum impact on children's development, high-quality care, development and learning must work together.
- Providers must be proactive in developing effective partnerships not only with parents, but with other carers, settings and practitioners important to the child. The experience of the child must be coherent and coordinated. This is particularly important for children who attend more than one setting.
- Practitioners must plan activities on the basis of children's developmental progress and interests so that they work towards the Early Learning Goals. In the final year of the EYFS, practitioners must record progress towards the goals and complete the Foundation Stage Profile.
- Practitioners must report children's achievements at the end of the stage to their parents or carers.



In addition, each of the areas of learning and development has specific requirements which practitioners must implement in order to help children progress towards the Early Learning Goals. The areas of learning and development and their requirements are as follows.

### **Personal, social and emotional development**

Practitioners must provide experiences and support to enable children to develop a positive sense of themselves and of others. They must support children's emotional well-being, helping them to know themselves and what they can do. They must also help children to develop respect for others, social skills and a positive disposition to learn.

### **Communication, language and literacy**

Practitioners must support children's learning and competence in communicating, speaking and listening, being read to and beginning to read and write. They must also work to give them the confidence, opportunity, encouragement, support and disposition to use the skills in a range of situations and for a range of purposes.

For an understanding of transition to Year 1, see the section beginning on page 106, which gives an overview of children's learning in Year 1.

### **Problem solving, reasoning and numeracy**

Practitioners must support children in developing their understanding of problem solving, reasoning and numeracy in a broad range of contexts in which they can explore, enjoy, learn, practise and talk about their developing understanding. Practitioners must provide opportunities for practice to develop children's confidence and competence.

For an understanding of transition to Year 1, see the section beginning on page 106, which gives an overview of children's learning in Year 1.

### **Knowledge and understanding of the world**

Practitioners must support children's development of the crucial knowledge, skills and understanding that help them to make sense of the world. Practitioners must support children's learning through offering opportunities for them to learn to use a range of tools safely, encounter creatures, people, plants and objects in their natural environments and in real-life situations, undertake practical experiments and work with a range of materials.

### **Physical development**

Practitioners must encourage the physical development of babies and young children by offering opportunities for them to learn through being active and interactive, improving their skills of coordination, control, manipulation and movement. Practitioners must support children in using all of their senses to learn about the world around them and to make connections between new information and what they already know. Practitioners must support children in developing an understanding of the importance of making healthy choices in relation to food.

### **Creative development**

Practitioners must extend children's creativity by supporting their curiosity, exploration and play. Practitioners must provide children with opportunities to explore and share their thoughts, ideas and feelings, for example through a variety of art, music, movement, dance, imaginative and role-play activities, mathematics, and design and technology.

# Year 1

## The learner

In Year 1, children move into a new key stage. The end of Foundation Stage assessment (the Foundation Stage Profile) provides a clear benchmark of children's attainment in literacy and mathematics. The assessment profile, together with ongoing teacher assessment, informs planning and teaching across the broader curriculum. The profile enables teachers to identify children's performance and progress and helps them plan how to address any gaps in learning. Helping children to recognise their progress maintains their enthusiasm and motivation. Home-school liaison continues to play a critically important role in children's experiences and the contribution of adults in and out of school has a significant impact on their early education.

Regular and effective daily literacy and mathematics teaching introduces children to new learning and to new ways of learning. Children will build on and consolidate their learning through practical work, practice and the opportunity to use their learning to solve problems and puzzles. Teachers provide planned opportunities for children to develop and apply their learning in other areas of the curriculum and beyond. Linking literacy and mathematics to out-of-school experiences, to learning in other curricular areas and to other daily activity helps children to appreciate the role that these aspects of learning play in their everyday lives.

At the start of Key Stage 1, most children are enthusiastic beginner readers and writers. Many children are able to read and write one grapheme correspondence for each of the 44 phonemes. They blend and segment CVC (consonant-vowel-consonant), CCVC and CVCC words for reading and spelling and use their phonic knowledge when trying to read and write more complex words. They recognise common digraphs and read a range of familiar and common words and simple sentences independently. They use their phonic knowledge to write simple, regular words and make phonetically plausible attempts at more complex words. Most children make statements, ask questions, give commands and reasons and explain processes using simple, compound and complex sentences in day-to-day speech. They can identify a sentence in a book by the fact that it begins with capital letter and ends with a full stop. Most compose a sentence around a single idea with the intention of dictating or writing it and some will insert a capital letter and full stop. Some can compose a series of sentences for writing a narrative or recount.

In Year 1, children develop their understanding of the elements of stories, such as the main character and the sequence of events. Children should be motivated to read for pleasure and for information. They understand how information can be found in non-fiction texts to answer questions about where, who, why and how. They retell narratives in the correct sequence, using the language patterns of stories, and will listen with enjoyment to stories, songs, rhymes and poems. Children attempt writing for various purposes using features of different forms such as lists, stories and information. They gather information based on their own experience and compose short non-chronological reports using simple sentences to describe particular aspects of a subject.

At the start of Key Stage 1, most children have acquired an understanding of the basic concepts of number, shape and measurement and see mathematics as an exciting and practical element of the curriculum. They say and use the number names. They can count accurately and recognise that numbers may represent a quantity, position or label. Teachers provide a balance of whole-class activity involving counting, problem solving in groups and independent work where children apply and practise their learning. This mix of mental, practical and informal written work engages and motivates children and fosters purposeful attitudes to mathematics.

In Year 1, children develop their understanding of place value and recognise the importance of 10 in the number system. They position numbers on a number track and number line. Children count on or back in ones, twos, fives and tens and develop strategies to add and subtract that relate to counting and their increasing knowledge of number facts. Children solve problems in a variety of practical contexts. They talk about the problem they are going to solve and use practical material, numbers and

diagrams to represent and organise the problem. They name and describe the features of common 2-D shapes and 3-D solids and create pictures and patterns that they can explain. Children begin to use standard units to measure and read time to the hour and half hour. They record information and present outcomes as pictures or diagrams and sort objects into groups according to a given criterion.

The activities children engage in will promote many of the key aspects of learning identified in *Excellence and enjoyment: learning and teaching in the primary years*.

## Speaking and listening

For most of their education leading up to Key Stage 1, practical activity and speaking and listening have been the principal media through which children's learning has taken place. Speaking and listening continue to underpin the development of children's reading, writing and mathematical skills. These skills also support learning across a broad and rich curriculum. Children learn to be more attentive listeners and to sustain conversation with others. They recognise that they are expected to talk about what they observe and do, and begin to compare their views and ideas with those held by others, including supporting adults.

In literacy, opportunities for oral responses to stories and poems are central to children's experience and learning in Year 1. Most children will develop their understanding of story structure and language by retelling events from their own experience in the correct sequence using story language and by making up their own stories. They will use improvisation and role-play and act out familiar stories, for example using puppets or toys and changing voice for different characters. In mathematics, children describe simple patterns and relationships between numbers or shapes and replicate or extend these in practical contexts or using ICT. Teachers provide children with opportunities to respond in a variety of ways, for example by joining in with familiar rhymes and repetitive phrases or counting activities, through storytelling and by re-enacting what they have heard and observed.

Children will have opportunities to join in with texts being read aloud, experimenting with ways to vary the volume, pace or emphasis to enhance the meaning. They will learn to listen with sustained concentration, follow instructions and take turns within a group. They will use an audible voice when they are speaking to the class or group, for example to recount an event, tell a story or express their views. They will experiment with and build new stores of words, including the extension to their mathematics vocabulary and positional, directional and comparative language, which they will use to communicate in different contexts. Children name shapes, they say the number that is 1 or 10 more or less than a given number and talk about objects that turn about a point or a line.

## Literacy

The reading curriculum in Year 1 must be based on a wide range of high-quality fiction, poetry and non-fiction texts and provide opportunities for children to apply their developing reading skills appropriately. A planned read-aloud programme is one key to the development of early readers, providing them with the essential tunes, rhythms and structures of language. It offers an ever-increasing store of vocabulary on which children can draw in speech and writing. Teachers promote pleasure in reading through reading aloud a wide range of stories, poems, rhymes and information texts. They ensure that children experience a range of fiction, non-fiction and poetry, including a number of ICT and other visual or multimodal texts and texts that relate to and support other areas of the curriculum. These include non-chronological reports, dictionaries, instructions and recounts to enable children to recognise some of the key features of different types of text.

During Year 1, children learn that some vowel sounds can be represented in more than one way, for example the /ae/ sound can be spelt with 'ai', 'ay' or 'a-e' and that sometimes the same grapheme is used to represent different sounds, e.g. the letters 'ea' are said differently in the words 'bead' and 'bread', 'g' is pronounced differently in 'gem' and 'get'. By the end of Year 1, most children recognise automatically an increasing number of familiar high frequency words.

Most children segment sounds in order to spell longer words, including words with common digraphs and adjacent consonants, and can correctly spell the common vowel phonemes, including long vowel phonemes. They use knowledge of related words and familiar suffixes in spelling new words and they learn to reread as they write to check for meaning and accuracy. Teachers plan for early reading knowledge and skills to be taught explicitly through shared and guided reading and through systematic and discrete word recognition teaching sessions. Children have regular opportunities to apply what they have learned when reading independently, using both new and familiar texts.

As children develop their reading skills during the year, they self-correct more rapidly as they are reading. They use context and syntax to check that what they are reading makes sense. They develop their reading fluency, paying attention to basic punctuation. Teachers give children opportunities to make choices about what to read as well as reading books chosen by the teacher. They are encouraged to express opinions about what they like and dislike and compare these to other children's preferences.

In Year 1, the majority of children identify basic story structures in narrative texts, including stories with familiar settings, stories about fantasy worlds, traditional tales and fairy stories. They make predictions about events and outcomes. Children compare different aspects of stories such as characters, settings or themes and learn how to find evidence in the text. They develop their awareness of character and dialogue through role-playing incidents and re-enacting stories. Children experience a wide range of poems, rhymes, action verses and chants. They recognise and join in with patterned and predictable refrains and play with language to make up new lines and poems following the same pattern.

Children learn to read and use the information around them for practical purposes, for example information in signs, labels, captions, lists and instructions around the classroom and school. They explore the differences between story and information books and gain confidence in making predictions about the content of particular books. They join in class discussion to generate questions before reading and then learn how to locate particular pieces of information in a text, for example by using the contents and index.

Acquiring isolated skills can seem pointless to young children so teachers will demonstrate the application of these skills in real contexts. They will then expect children to 'have a go' independently whenever possible. Early identification of children who are not making the expected rate of progress with their reading, writing or phonic skills is vital. Their needs can be met through well-differentiated teaching and an appropriate literacy intervention programme.

All writing needs a clear purpose and audience, set in a relevant and motivating context, and children need to see that their writing affects the people and world around them. Teachers plan regular opportunities for children to write simple stories during the year. Telling stories and hearing good models read aloud will help them to rehearse and plan what they are going to write. Children build their own stories around familiar plots, characters or settings, and develop their confidence through retelling familiar stories. By the end of Year 1, most children write their own stories which include a simple setting and have a clear beginning, middle and end. They write and present information for everyday classroom use, for example extended captions for displays, labels, lists and instructions for using equipment. They contribute to class information books which include factual recounts and labelled diagrams. Role-play areas encourage children to write purposefully for real and imaginary audiences.

During Year 1, children form an explicit understanding of a sentence and most become able to compose and write simple sentences that convey meaning, punctuated by capital letters and full stops. They use sentences (probably without punctuation) when writing stories and experiences. In creating a description, they compose one simple sentence at a time, each around a single idea, and hold each one in memory while writing it, punctuating using capital letters and full stops.

In regular handwriting lessons, children will use handwriting patterns to establish rhythm and control in writing, using a comfortable and efficient pencil grip. They will form lower case letters correctly

in a script that is easy to join later. They will practise handwriting in conjunction with spelling and independent writing, ensuring correct letter orientation, formation and proportion. Teachers need to provide additional support for children whose fine motor skills are slow to develop, to avoid the consequence of them becoming frustrated with this aspect of writing. Children will learn where all the letters of the alphabet and the space bar are on the keyboard and type simple texts.

Further guidance and support on planning to meet the needs of Year 1 learners in literacy can be found in the planning section of the electronic Framework.

## Mathematics

In Year 1, children solve problems in the context of numbers, measures or money. They describe the problem or puzzle in their own words and use numbers, practical resources or diagrams to help them. Children begin to sustain their problem-solving activity and return to problems to develop their solutions further. Teachers support the whole class and groups of children by providing scaffolded contexts that enable children to identify and develop problem-solving strategies and to explain their methods, choices and decisions to other children. Teachers plan for and provide children with problems that require a similar approach so they can practise and consolidate the strategies they need to solve them.

Children count groups of objects with increasing accuracy. They count aloud, forwards and backwards, and order numbers, positioning them on a number line. They develop their sense of the size of numbers and use this to estimate a number of objects that can be checked by counting. Teachers provide a range of practical contexts that involve children in comparing and ordering numbers, and from which children begin to draw conclusions and distil methods of working that require less recourse to practical resources.

During Year 1, most children learn number facts that they can recall and use to calculate and to derive additional facts. Teachers use resources and pictures to help children build up images and patterns of number pairs that total 10 and to derive addition facts and corresponding number facts and doubles to 10. Children relate addition to counting on, subtraction to taking away and finding a difference by counting up. They use practical and informal written methods to support addition and subtraction involving one-digit and two-digit numbers or multiples of 10. Teachers provide activities that involve children in using number facts and calculations, within which there is embedded practice.

Children read and record number sentences for addition and subtraction. They understand the vocabulary and use it when solving related problems. Children solve practical problems that involve combining groups of 2, 5 or 10 and sharing objects into equal groups. Teachers model how the associated vocabulary and language is used and provide images that support the process such as bead strings, number lines or ICT representations.

Children decide whether examples satisfy given conditions. They visualise and name common 2-D shapes and 3-D solids, describe their features and use the features to sort into groups according to a given criterion. Children recognise how objects turn and identify and make whole, half and quarter turns. They develop their use of everyday language to describe the position of objects and the direction and distance they move. Teachers plan activities that require and promote this language, including games, movement about a grid or the use of ICT, including programmable toys and interactive software.

The majority of children become more confident at answering questions by recording and organising information in lists or tables. They take measurements and compare capacities, weights or the lengths of objects. Children display their results in pictures, block graphs or pictograms and interpret these so other children understand them. Teachers ensure that children understand how information in other areas of the curriculum can be organised, sorted and presented in a similar way using common tools and skills.

## Embedding key aspects of learning

In Year 1, children's early thinking, communication and social skills develop through carefully planned and organised literacy and mathematics teaching and learning activity. For example, most children extend their creative thinking as they make imaginative responses to reading and explore links between what they have read or heard and their own experience. In mathematics they describe the patterns they see in pictures made of shapes and combine shapes imaginatively to form new patterns and shapes. They see how numbers are formed and use the patterns they hear and see to interpret numbers larger than 20.

Listening to stories helps children to develop self-awareness and an understanding of how to manage difficult feelings in themselves and others. Motivation is central to children's experience in Year 1. They take an active part in their learning and begin to see themselves as readers, writers and beginning mathematicians. They use reasoning and enquiry skills as they engage with the meaning of texts and problem-solving approaches when decoding new words or deciding how to 'pay' and 'give change' in a role-play context or a puzzle.

The majority of children begin to develop evaluative skills as they listen to other children tell a story or explain how they built a shape. They become more critical thinkers when asked to sort shapes or to decide whether a shape they have made meets the conditions that were set. Working collaboratively helps to develop social skills as children learn to share, take turns and listen and respond to their peers – skills the children can use across the curriculum and out of school.

During the year, children's communication skills develop as they discuss and explain their methods and ideas. They meet and use a wider range of vocabulary. They establish the meaning of new words they encounter in new contexts, for example when talking about the features of shapes such as points and edges, numbers or different displays of data. They learn information processing skills they will be able to apply to independent research in future. With adult support, children begin to develop some understanding of how they learn and to think about their own learning goals.

## Inclusion

### ***Children with SEN and/or learning difficulties or disabilities***

Where possible, through the use of appropriate access strategies and support, Year 1 children with SEN will be working towards the same learning objectives as their peers. From time to time those working well below the level of the whole class may be working towards related objectives chosen from the relevant progression strand from an earlier year.

### ***Children who are gifted and talented***

Children who are working well above the overall level of their class or group will be engaging with a range of experiences designed to broaden or deepen their learning while working on the same learning objectives as their peers. From time to time they may also be accelerating the pace of their learning by working towards objectives chosen from the relevant progression strand from a later year.

### ***Children learning EAL***

Year 1 children learning EAL will be accessing curriculum content while also developing cognitive and academic language within whole-class, group and independent contexts. Through the use of appropriate access strategies and support, they will be experiencing a level of cognitive challenge consistent with that provided for their peers. Those Year 1 children who have become conversationally fluent will continue to receive support to develop the academic language and vocabulary associated with the subject and the language and grammar used to express ideas and thinking within the subject.

Further guidance and support on planning for inclusion to meet the needs of Year 1 learners in literacy and mathematics can be found in the planning section of the electronic Framework.

## Year 2

### The learner

Year 2 takes children through to the end of Key Stage 1 and is the time when most children secure many of their early key skills as learners. Assessments made at the end of Year 1, together with ongoing teacher assessment, inform planning and teaching across the broader curriculum. This assessment profile enables teachers to identify any gaps in understanding that need to be addressed in order to secure progression in learning. Helping children to recognise their progress maintains their enthusiasm and motivation, supported by strong home–school links with clear lines of communication.

Regular daily literacy and mathematics teaching develops and extends children's learning, with opportunities for children to consolidate existing learning through practice and the use and application of that learning. Children's knowledge, skills and understanding are strengthened by linking their learning to other curricular activities. They begin to see how literacy and mathematics help them to communicate, measure and explain what they observe, hear and read. Teachers provide a carefully planned balance of support and independent work that promotes children's responsibility for their own learning.

At the start of Year 2, most children are developing as competent early readers and writers. Teachers sustain the enthusiasm children acquire in Year 1 as they progress over the year. Children's reading and writing strategies are developed to provide them with the learning skills they need for independent work and sustained activity. Hearing texts read aloud provides children with the essential tunes and rhythms and structures of language and an ever-increasing store of vocabulary to draw on in speech and writing. Children listen to short stories, serialised longer stories and information texts read aloud. They participate in class discussions and contribute to a shared understanding of aspects of the text.

Most children identify the main events and characters in stories and find specific information in simple texts. They make predictions and recognise the elements that shape different texts. They select books for their personal reading, giving reasons for their choices. Most children are becoming confident in writing for a range of purposes, including simple narratives, recounts, non-chronological reports and sets of instructions. They rehearse their sentences orally ahead of writing independently and show evidence of applying the knowledge of language and its structures gained from reading. Children punctuate simple sentences and use spelling strategies drawn from their growing phonic knowledge and sight vocabulary.

At the start of Year 2, most children have already acquired a basic knowledge of numbers and place value upon which they build their understanding of the number system. They count in twos, fives and tens and have started to derive and recall number facts. They use counting strategies to calculate, and understand, read and use the symbolism of arithmetic to record number sentences involving addition and subtraction. They solve problems from real life and in mathematical contexts and become more independent and competent early mathematicians.

In Year 2, children develop more sophisticated counting skills. They represent repeated addition as multiplication and represent sharing and repeated subtraction as division. The majority of children extend their knowledge and use of number facts and their understanding of inverse operations. Children use informal methods of recording to support their mental calculations, record and interpret number statements involving all four operations and work out missing values. They identify, describe and explain simple patterns and relationships that involve numbers and shapes. Children use practical resources to solve shape problems, for example to find how to make known shapes by combining other shapes. They decide how they might collect data and check that their solution makes sense in the context of the problem.

The activities children engage in support them in developing the key aspects of learning identified in *Excellence and enjoyment: learning and teaching in the primary years*.

## Speaking and listening

Speaking and listening, as well as being critical skills in their own right, underpin reading and writing skills and the development of mathematical thinking and ideas. They support learning and are developed further across a broad and rich curriculum.

Children plan, prepare and perform stories and poems for a group or class, developing their clarity and intonation and learning techniques to sustain the listeners' interest. They devise short dramatisations and learn how to comment constructively on the performance of others. Teachers plan regular opportunities for oral storytelling and reciting of poems. Children have opportunities to watch live or recorded performances, for example of traditional tales from other cultures, and to respond by describing the costumes, scenery and music, and discussing the mood and atmosphere.

Speaking and listening continue to play an important role in mathematics learning. Children rehearse and practise their recall, listening and observational skills by describing patterns, properties and relationships. They extend their use of the vocabulary and language of mathematics. Much of children's mathematics learning continues to be oral, visual and practical. In Year 2, most children develop their ability to combine oral and recorded work, using images, pictures or simple diagrams to explain their methods or reasoning to others.

Children work in groups, learning how to listen to one another, to come to an agreement about what they should do and to plan how they will set about it. They develop their speaking and listening skills through work linked to other areas of the curriculum. For example, they follow instructions on how ICT might be used to solve problems, or listen to an adult talking about caring for a baby and then remember the key points.

## Literacy

Children experience a range of high-quality fiction, non-fiction and poetry, including a number of ICT and other visual or multimodal texts and texts which relate to other areas of the curriculum. Teachers plan for early reading knowledge and skills to be taught explicitly through shared and guided reading and discrete word-level teaching sessions. Children apply what they have learned in guided reading and when reading independently from texts. A planned read-aloud programme is one key to the development of early readers.

The majority of children entering Year 2 can read automatically some 150 of the most frequently occurring words in English and can spell many of them. During Year 2, their phonic knowledge and speed of blending increases so that they can decode words independently and quickly. This increases the amount they read, and the number of words they can automatically read builds up.

Systematic teaching of spelling skills and strategies will frequently form part of literacy lessons. When children come into Year 2, they know that they have a choice of spellings for most of the vowel phonemes but are generally unaware of what influences the choice. Children consolidate their knowledge of vowel phonemes and learn about some prefixes and suffixes and how to spell regular verbs in the past tense. Children apply what they know about phonics and spelling rules when spelling unfamiliar words, including two-syllable and three-syllable words. They increase the number of words they can spell correctly in their independent writing in all areas of the curriculum and learn routines for checking and correcting work.

The majority of children read independently and tackle longer and less familiar texts with increasing fluency. They routinely apply their phonic knowledge as the prime approach to reading unfamiliar and more complex words. They learn to keep track of the meaning in texts with longer sentence structures and paragraphs, take note of punctuation and read silently or quietly at a more rapid pace.

During the year, children gain confidence in choosing what they want to read from a selection of texts. They become more aware of authors, recognise common settings, characters or themes in an author's



work and talk about their favourites. Children learn how to discuss and record their reaction to texts they have read, making simple evaluations.

Children consolidate their understanding of basic story structure in narrative texts, including stories with familiar settings, traditional tales, extended stories and different stories by the same author. They recognise formal story elements and common features. As they look at the sequence of events in stories, children explain the reasons for particular events and why a character acted in a particular way, drawing information from different parts of the text.

Children read a range of non-fiction texts for interest, including those linked to other areas of the curriculum. These include examples of instructions, explanations, dictionaries and non-chronological reports. Children begin to acquire a range of skills that will help them to research particular questions in the future, for example posing questions before reading, distinguishing between fiction and non-fiction, scanning an index, and skimming the title or cover in order to gain an overall impression of a book and how to evaluate its usefulness. Children learn how to make simple notes by recording key words or phrases.

During Year 2, children learn more about the ways words and sentence structure can be extended, manipulated and linked in specific ways to suit context, purpose and audience and use planning devices to support the development of more extended pieces of writing in which ideas are linked coherently. They develop greater control over the writing process and use written forms that differ structurally from spoken language.

Most children plan and write stories during the year and move beyond a simple retelling to show awareness of other elements of stories, for example describing a setting as part of the story opening, describing the main characters and including dialogue between characters. By the end of Year 2, most children write stories with a clear and sustained form, a logical sequence of events and a consistent use of person and time. They learn how to use time connectives to indicate links between the different sections of the story.

Children present information using the structures and features they have studied in reading. They write instructions, make class dictionaries, present diagrams to explain processes and write non-chronological reports. They learn how to select and use the correct register when writing in a particular form, for example impersonal for instructions, and gain confidence in sustaining this throughout the writing. They make use of features from reading to organise information more clearly, for example using subheadings to divide up the sections of a non-chronological report.

The majority of children secure the use of simple sentences in their own writing and learn how to construct and use compound sentences. They encounter complex sentences with subordinate clauses in reading. By the end of Year 2, children begin to use subordination in relation to time and reason when constructing their own sentences. Their growing understanding of the past and the present tense enables them to select the appropriate tense, use it consistently and check for subject-verb agreement when proofreading. They compose questions, use question marks and use commas to separate items in a list.

Children practise handwriting patterns from Year 1. They write legibly, using upper and lower case letters appropriately within words, and observe correct spacing within and between words. The majority of children begin practising and using the four basic handwriting joins. They wordprocess short narrative and non-narrative texts.

Further guidance and support on planning to meet the needs of Year 2 learners in literacy can be found in the planning section of the electronic Framework.

## Mathematics

In Year 2, most children solve problems that involve all four operations. They begin to record the calculations involved, solve these and check that their solution makes sense in the context of the problem. Children use practical resources, for example to find how to make known shapes by combining other shapes; they use ICT to create shapes by moving the edges and vertices of a shape drawn on a grid. They record and describe the shapes, referring to their properties. Children solve logic problems using lists or tables and practical resources, and decide whether an object satisfies a set of conditions. Teachers plan regular opportunities for children to use and apply their developing mathematical understanding both within the daily mathematics lesson and across the curriculum.

The majority of children read and write whole numbers with up to three digits and know what the digits represent in two-digit numbers. They order numbers to at least 100 using the vocabulary and notation of greater than ( $>$ ) and less than ( $<$ ). They count in 2s, 5s, 10s and 100s and identify the numbers on a number line to help with calculations. They use counting strategies for carrying out repeated addition and repeated subtraction calculations. Teachers help children to identify and use multiples of 10 as landmark numbers in calculations using number lines to record steps.

Most children find halves and quarters of shapes and sets of objects. They recognise that finding a quarter involves sharing into four equal parts. They understand that three quarters is made up of three one-quarter parts. Teachers provide children with opportunities to explore and use fractions in practical and real-life contexts.

Children derive and recall all pairs of numbers that total 20 and the multiples of 10 that total 100. Through regular practice they extend their knowledge of addition and subtraction facts to include all numbers to at least 10. Children use their counting strategies to derive multiples of 2, 5 and 10. They relate these to the relevant multiplication tables and use the tables to recall multiplication facts and derive related division facts.

Most children use their knowledge of number facts to add or subtract mentally a single-digit number or a multiple of 10 to or from any two-digit number. They use the language of addition and subtraction accurately. Children understand that multiplication is a shorter form of repeated addition and can be represented by an array. Teachers use practical resources and images to model the processes involved, planning carefully activities that involve sharing and grouping to help children to see the connection to the operation of division.

Children name, visualise and make 2-D shapes and 3-D solids. They identify common features such as line symmetry or the shapes of the faces of a solid. They use mathematical language to describe position, direction and movement, and explore these ideas in physical education lessons and during practical activities. Children describe and make whole, half and quarter turns, clockwise and anticlockwise, and know that a quarter turn is called a right angle.

By the end of Year 2, most children read the numbered divisions on a scale and interpret the unnumbered divisions between them. They use standard units to measure accurately to the nearest division, and begin to make connections between standard units of length, mass and capacity. They are able to read time to the quarter hour on both digital and analogue clocks. Children identify time intervals, including those that cross the hour boundary, and relate these intervals to their everyday experience.

Children collect and record data using simple lists and tables which they can share with others. They organise and present their results as block graphs or pictograms, using ICT where appropriate. They interpret and communicate their findings and decide on an answer. Teachers plan opportunities across the curriculum for children to consolidate these skills.

Further guidance and support on planning to meet the needs of Year 2 learners in mathematics can be found in the planning section of the electronic Framework.

## Embedding key aspects of learning

In Year 2, thinking, communication and social skills develop through literacy and mathematics. Children develop the skills of enquiry and evaluation. In mathematics they begin to follow a line of enquiry and choose and use the equipment they need to carry this out. They explain their decisions and describe how they used the equipment and whether it was suitable for the task. Problem-solving activities that involve gathering and analysing information or measuring provide links between mathematics and other curriculum areas and draw on children's experiences beyond the school day.

Children begin to reason when they recognise and extend sequences and solve mathematical puzzles. For example, children draw conclusions about a shape when observing part of it or when looking at pictures of it.

Children ask questions about fiction and other areas of the curriculum and seek the answers in texts and other sources. They begin to make judgements about the value of work or ideas. They apply reasoning and enquiry skills as they engage with the meaning of texts and problem-solving approaches as they decode new words. During the year they will use information processing skills as they undertake research and collect and record information they need to answer questions. In mathematics they record their results in simple lists and tables and present their results using block graphs or pictograms, using ICT where appropriate.

Listening to stories, poems and information texts about others' lives helps children develop self-awareness and an understanding of managing difficult feelings in themselves and others. Their communication becomes more precise as they use, for example, the language and symbolism of calculation and vocabulary of estimation and time.

Children continue to develop their understanding of how they learn and, with adult support, most begin to identify their own learning goals.

## Inclusion

### ***Children with SEN and/or learning difficulties or disabilities***

Where possible through the use of appropriate access strategies and support, Year 2 children with SEN will be working towards the same learning objectives as their peers. From time to time those working well below the level of the whole class may be working towards related objectives chosen from the relevant progression strand from an earlier year.

### ***Children who are gifted and talented***

Children who are working well above the overall level of their class or group will be engaging with a range of experiences designed to broaden or deepen their learning while working on the same learning objectives as their peers. From time to time they may also be accelerating the pace of their learning by working towards objectives chosen from the relevant progression strand from a later year.

### ***Children learning EAL***

Year 2 children learning EAL will be accessing curriculum content while also developing cognitive and academic language within whole-class, group and independent contexts. Through the use of appropriate access strategies and support, they will be experiencing a level of cognitive challenge which is consistent with that provided for their peers. Those Year 2 children who have become conversationally fluent will continue to receive support to develop the academic language and vocabulary associated with the subject and the language and grammar used to express ideas and thinking within the subject.

Further guidance and support on planning for inclusion to meet the needs of Year 2 learners in literacy and mathematics can be found in the planning section of the electronic Framework.

## Year 3

### The learner

Year 3 children move into a new key stage. The end of Key Stage 1 assessment provides a clear benchmark of their attainment in literacy and mathematics. Use of this assessment profile, together with ongoing teacher assessment, informs planning and teaching across the broader curriculum. The profile enables teachers to identify and plan how to address any gaps in learning. Helping children to recognise their progress maintains their enthusiasm and motivation. A careful blend of support and increasing independence over the year promotes children's sense of responsibility as learners. Year 3 teachers need to take every chance to link literacy and mathematics to practical experience, to learning in other curricular areas and to children's lives. The home-school link remains a critically important element in supporting children's progress in literacy and mathematics.

Learners experience systematic literacy and mathematics teaching every day. Effective daily literacy and mathematics teaching provides new learning, consolidation through practice and opportunities to use and apply their learning to solve problems and pursue enquiries. Further opportunities to link their learning to other curricular activities strengthen children's knowledge, skills and understanding and emphasise the role that literacy and mathematics play in communicating, quantifying and explaining events.

By the end of Key Stage 1, most children have developed as confident early readers and writers. In Year 3, their range of reading broadens, in printed, ICT-based and multimodal texts. Some children enter Year 3 with insecure reading skills and need considerable support, not just in learning skills and strategies but in maintaining interest and enthusiasm. A planned read-aloud programme is one key to the transition from supported to independent reading. Listening to high-quality, interesting texts at a level well beyond their decoding skills develops children's comprehension and enthusiasm. Teachers encourage children to be experimental as writers, including encouraging the use of pictures and varying layout on paper and screen. They promote an adventurous approach to sentence construction and vocabulary choice. All the time, they make children aware of the effect of their choices on the reader.

At the start of Year 3, the majority of children are on the brink of independence in literacy. The confidence gained in Year 2 needs to be sustained as they move into a new key stage, to build enthusiasm, interest and motivation. Teachers need to balance support and the move to independent reading and writing carefully. They will need to consider any additional support needed for children with SEN and children for whom English is an additional language.

By the end of Key Stage 1, most children have a range of counting skills using whole-number steps. They are becoming more confident in their understanding and use of all four number operations. They know all number pairs up to 10 and for 20 and the multiplication facts for the 2, 5 and 10 times-tables. They use signs and symbols to record and interpret number sentences and find the values of an unknown number. They partition two-digit numbers and add and subtract mentally single-digit numbers to and from two-digit numbers.

At the start of Year 3, the majority of children have a stronger understanding of the number system and of the four operations. They solve problems set in different contexts, recording the steps and information used, and checking solutions. They describe patterns that they observe, begin to make predictions and test them with examples. Children solve logical problems and, working with other children, follow a line of enquiry, making choices and decisions which they can explain. Children continue to develop and use informal written methods of calculation, supported by practical methods, while drawing on more secure recall and mental skills. They visualise and recognise simple properties of shapes. They use standard units of measure, including units of time.

The activities children engage in should support them in developing many of the key aspects of learning identified in *Excellence and enjoyment: learning and teaching in the primary years*.

## Speaking and listening

Speaking and listening, as well as being critical skills in their own right, underpin reading and writing skills and the development of mathematical thinking and ideas in a broad and rich curriculum. Children meet a wide range of oral and written language and develop their use of vocabulary in literacy and mathematics and across all subjects. The majority of children will be able to engage well orally with their peers and familiar adults, talking coherently and sustaining conversations with others. They will listen attentively and join in whole-class and small-group discussion, for example to share their solutions and methods.

In Year 3 children continue to develop their speaking and listening skills through a rich curriculum. They use talk functionally in groups to get things done in different subject areas, developing the skills of active listening and taking turns to speak. For example, in mathematics they use the names of shapes and solids, using criteria such as size and properties relating to faces and vertices to sort them. They read calculations aloud for other children to solve, which helps them to visualise the structure and the number sentence involved.

Children also talk to explore issues and to reflect on feelings, behaviour and relationships, for example using the social and emotional aspects of learning (SEAL) activities. Drama, role-play, storytelling and oral performance enable children to respond imaginatively to all kinds of texts and to interpret real and imagined experiences in a variety of ways. Speaking and listening activities, drama and role-play allow children to create a sense of community and shared experience. They continue to support reading and writing in all curricular areas.

Confidence in speaking and awareness of audience grow in Year 3. There will be many opportunities to develop and practise performance skills, linked to their own and authors' scripts, when performing plays and poetry to both small and large groups in and out of school. Children share their ideas and strategies with their talk partners and in groups, and learn to use the language of reasoning to justify choices.

## Literacy

Most children continue to develop reading comprehension using a range of strategies. They are becoming aware of varying text organisation and style. They identify and articulate the main points of a passage, using text marking or graphic organisers. They identify complications, dilemmas and resolutions in narrative texts. They make inferences about the thoughts and feelings of the main characters, justifying views using evidence from the text. They identify consequences in logical explanations and begin to monitor their own comprehension, using 'look back' strategies to clarify misunderstandings or check details. Children in Year 3 need to be able to use underlying typical themes, plots and ideas of stories to make predictions. They need to use questions about how and why authors use grammatical and literary features to express and describe ideas. The tasks for the Year 3 reader are to develop reading stamina and fluency and to widen their reading range across fiction, poetry and non-fiction. Teachers revisit familiar texts as well as developing the range and length of 'read alouds'. Including non-fiction regularly helps learners to understand and internalise text organisation and exposes them to the linguistic features of recounts, reports, instructions and explanations.

During the year, most children share and compare reasons for reading preferences and extend the range of books they read. They become more aware of authors, recognising common settings, characters or themes in an author's work and being able to talk about their favourites. Children learn how to discuss and record their reaction to texts they have read, making simple evaluations and giving their reasons. They are developing personal tastes, for example avidly reading a series of books by the same author.

By the beginning of Year 3 it is expected that most children have acquired a sizable vocabulary of words they can access automatically for reading and spelling. This will include 300 of the most frequently occurring words and other words they encounter at home and school. Their broad

knowledge of the phonic code and growing understanding of the morphemic structure of words enable them to learn to read and spell new words independently, so their reading and spelling vocabulary expands rapidly during Year 3. This is a critical year for moving from a primarily phonics-based spelling approach to one that takes more account of morphemic word structure and etymology. The accuracy of spelling high frequency words increases.

Some children in Year 3 are still insecure with reading and continue to need support in learning skills and strategies and in maintaining interest and enthusiasm. Wanting to read is important as well as learning how to do it. As in Year 2, listening to high-quality texts, guided reading and targeted intervention programmes are essential elements for this group. It is vital to maintain the interest and motivation of struggling readers, giving them access to texts well beyond their own reading ability.

Planning through talk and oral rehearsal are key skills for Year 3 as children develop as writers. In narrative writing story structures are developed, as learners vary their openings, link a series of events and are aware of the effects of different endings. Familiar stories are used as models. Settings, character description and dialogue all develop in range, with the use of lively, imaginative detail. In non-fiction writing, instructions and first-person recounts based on real-life experience continue to develop. Most children make decisions about the form and purpose for their writing and develop success criteria against which they can evaluate their work.

The majority of children become secure in using simple and compound sentences, extending their use of subordinators such as 'if', 'so', 'while', 'though', 'since'. Through listening, reading and specific teaching, they will meet complex sentences, often unrelated to their everyday speech patterns. Beginning to use complex sentences, where appropriate, adds maturity, interest and variety to their narrative and non-fiction writing. They use interesting and more specific vocabulary, for example 'poodle' for 'dog', and vary the use of adjectives and verbs for impact.

Teachers continue to teach and to provide practice time to support the correct formation of the four basic handwriting joins from Year 2. The majority of children use these in independent writing. They write with consistency in size and proportion of letters and spacing within and between words. They develop accuracy and speed when using the keyboard to type, edit and re-draft their writing.

Further guidance and support on planning to meet the needs of Year 3 learners in literacy can be found in the planning section of the electronic Framework.

## Mathematics

In Year 3, most children follow a line of enquiry and solve one-step and two-step problems involving numbers, money or measures, including time. They identify the information that they need, decide which method to use, and explain and record the calculations that they undertake to solve the problem. They use the inverse operations to solve and check solutions to problems. Teachers plan regular opportunities for children to use and apply their mathematics in the daily mathematics lesson and across the curriculum.

Children consolidate and extend their knowledge and understanding of number through frequent and regular practice. They build on their understanding of place value to partition three-digit numbers, round two-digit and three-digit numbers to the nearest 10 or 100 and position numbers on a number line, helped by images such as a counting stick or use of interactive ICT tools.

The majority of children read and write proper fractions. Through carefully planned practical activity, they understand that in the fraction  $\frac{1}{5}$  the denominator 5 identifies the number of parts of the whole quantity. Children derive and recall addition and subtraction facts for numbers to at least 20 and learn by heart the 2, 3, 4, 5, 6 and 10 times-tables. They use these facts to derive division facts and to carry out multiplication and division mentally.

Most children extend their mental calculation skills to add and subtract combinations of one-digit and two-digit numbers and to construct equivalent calculations. They use written methods to add and subtract two-digit and three-digit numbers. Children represent calculations such as  $318 + 65$  as steps on a number line, linking this to methods of recording where 65 is partitioned into 60 and 5. They use practical and informal methods to multiply and divide two-digit numbers. Children carry out calculations involving remainders and round up or down according to the context. Teachers provide real-life contexts that present children with illustrations of where this is necessary.

The majority of children draw and make 2-D shapes and 3-D solids. They make shapes on grids and reflect these shapes in a mirror line, and identify and complete shapes with reflective symmetry. Children describe direction and movement about a grid using the four compass points. They identify right angles in shapes and compare other angles with right angles. Teachers draw on other areas of the curriculum to provide images for children to explore and use, or practical activities where the shapes and solids are being created or manipulated.

Most children read scales and measure to the nearest division with increasing precision and accuracy. They use standard units to measure length, weight and capacity. They collect, organise and interpret data to find answers to questions and organise the data using tally charts or frequency tables and present it as pictograms or bar charts. Teachers plan opportunities in other subject areas, for children to apply the measuring and data handling skills they have acquired in mathematics. Children read time on a 12-hour digital clock and to the nearest 5 minutes on an analogue clock.

Further guidance and support on planning to meet the needs of Year 3 learners in mathematics can be found in the planning section of the electronic Framework.

## Embedding key aspects of learning

In Year 3, children's thinking, communication and social skills continue to develop. For example, through reading and writing narrative and poetry, children develop their skills in questioning, reasoning, evaluating and empathy. Literature helps them develop self-awareness and an understanding of managing difficult feelings in themselves and others. Non-fiction reading and writing develops clarity and precision of expression. In mathematics, children develop more secure understanding and wider knowledge and skills to call on. These inform their thinking, communication and evaluative skills. Children contribute to questions and lines of enquiry that they develop when they use and apply their mathematics. They evaluate their own and other children's ideas and methods. They make increasing numbers of choices and decisions about what information is important and the resources and methods to use to solve problems.

Children develop enquiry, information processing and communication skills as they retrieve information from a wide range of texts, including ICT and multimodal texts. They learn how to locate information across texts, and then plan how to present it effectively, orally or in writing, for a specific audience. In mathematics, children learn more ways to organise and present information, drawing on ICT to help them. Communication is developed as children talk about their mathematics, describing solutions and explaining methods orally and in writing, using pictures and diagrams. They learn new vocabulary to discuss topics such as fractions and early concepts of proportion.

Working in pairs and groups helps children to develop their social skills as they share their ideas and thinking. Children begin to develop an understanding of how they learn. This self-awareness enables them to recognise what they can do well and what they need to improve, and they become increasingly able to consider and set their own learning goals.

Children begin to use texts as evidence and to apply their own knowledge and experience when interpreting them. They continue to develop the ability to evaluate their own writing through evaluating other people's writing and the usefulness of texts for particular purposes. In mathematics, children evaluate efficiency when calculating or sorting and organising data. As children develop these

evaluative tools, teachers plan opportunities for children to apply the skills involved in other areas of the curriculum.

Speaking, listening, reading and writing encourage creative thinking by providing opportunities to make connections and to see relationships. Teachers provide learning activities that encourage children to visualise the past and project into the future. They open up for exploration ideas, and real and imagined worlds, with endless possibilities. Children have opportunities for creative thinking when they identify patterns in shapes and relationships between numbers, and when they make estimates and predictions they can check and test. The introduction to informal written methods of calculation and their relation to more visual and kinaesthetic models help children to see connections within mathematics and how they might apply these to other aspects of learning.

## **Inclusion**

### ***Children with SEN and/or learning difficulties or disabilities***

Where possible through the use of appropriate access strategies and support, Year 3 children with SEN will be working towards the same learning objectives as their peers. From time to time those working well below the level of the whole class may be working towards related objectives chosen from the relevant progression strand from an earlier year.

### ***Children who are gifted and talented***

Children who are working well above the overall level of their class or group will be engaging with a range of experiences designed to broaden or deepen their learning while working on the same learning objectives as their peers. From time to time they may also be accelerating the pace of their learning by working towards objectives chosen from the relevant progression strand from a later year.

### ***Children learning EAL***

Year 3 children learning EAL will be accessing curriculum content while also developing cognitive and academic language within whole-class, group and independent contexts. Through the use of appropriate access strategies and support, they will be experiencing a level of cognitive challenge consistent with that provided for their peers. Those Year 3 children who have become conversationally fluent will continue to receive support to develop the academic language and vocabulary associated with the subject and the language and grammar used to express ideas and thinking within the subject.

Further guidance and support on planning for inclusion to meet the needs of Year 3 learners in literacy and mathematics can be found in the planning section of the electronic Framework.



## Year 4

### The learner

At the start of Year 4, the majority of children are rapidly gaining confidence and fluency in literacy and mathematics. They are now securely established in Key Stage 2. The end of Year 3 assessment profile provides a clear benchmark of their attainment in literacy and mathematics. This, together with ongoing teacher assessment, informs planning and teaching across the broader curriculum. The profile enables teachers to identify and plan how to address any gaps in learning. Helping children to recognise their progress maintains their enthusiasm and motivation. Giving children increasing opportunities to make choices and to justify their decisions builds their sense of independence over the year and promotes their responsibility as learners. Year 4 teachers need to plan opportunities for children to link their learning in literacy and mathematics to practical experience and to learning in other curricular areas. The home-school link continues to play a key role and homework helps to secure past or ongoing learning, or prepares children for the next steps in learning.

Effective daily literacy and mathematics teaching provides new learning, consolidation through practice and opportunity to use and apply their learning to solve problems and pursue enquiries. In Year 4, for the majority of children, technical skills in reading and writing and their recall and mental calculation skills in mathematics are becoming more automatic. These learners can access a wider range of fiction, poetry and non-fiction texts independently. They rely less on adult choice and suggestion. Control over literacy skills enables them to develop their personal preferences in reading and writing in and out of school. As children's knowledge, skills and confidence grow in mathematics, they begin to identify more general patterns and rules. They begin to understand when and how they can use them to simplify calculations and reduce the steps needed to reach a solution.

Year 4 children extend their understanding of all text-types through personal response, while at the same time becoming aware of linguistic features, text organisation and authors' style. Most children can identify and make notes on the main points of sections of text and identify how different texts are organised. They can infer characters' feelings in fiction and discuss consequences in logical explanations.

As in reading, Year 4 is marked by growing confidence, control and fluency in writing fiction and non-fiction. Children are aware of features that writers use to provoke reactions in readers and they have gained confidence in selecting forms of writing for different audiences and purposes. They have begun to use success criteria in evaluating their own writing.

Going into Year 4, most children have a good understanding of place value. They begin to make connections in mathematics, understand and use the inverse relationships between the operations and derive and recall a wide range of number facts. They are becoming more secure in using mental and informal written methods of calculation for all four operations. Children construct equivalent number sentences that help them simplify calculations.

Children use and apply what they know about number, shape and measurement when solving one-step and two-step problems and the majority become more confident in discussing and explaining their ideas and solutions. Children recognise how properties of shapes can be used to identify what is similar, identical or different about them. They are able to draw on a wider set of skills to organise and represent information and to interpret data presented in tables and charts. As children's knowledge, skills and confidence grow they begin to identify more general patterns and rules.

Children's use and application of mathematics and evaluative skills in literacy provide opportunities to review how successfully they are acquiring the key aspects of learning identified in *Excellence and enjoyment: learning and teaching in the primary years*.

## Speaking and listening

In Year 4 speaking and listening, as well as being critical skills in their own right, continue to form the foundation of reading and writing skills and of the development of mathematical thinking and ideas across a broad and rich curriculum. Carefully planned collaborative group work provides social opportunities to develop speaking and listening skills in a structured context, allowing children to experience different roles as they work cooperatively on tasks and reflect on the ground rules for sustaining talk and interactions.

In Year 4 most learners are beginning to understand that people can hold alternative viewpoints, and to experiment with looking at the world through someone else's eyes. They can explore how talk varies according to different contexts, purposes and audiences in drama and role-play and in different media. They can compare the different contributions of music, words and images, for example through watching performances and short extracts from TV programmes.

Seeing, listening to and speaking about mathematics are key aspects of learning and teaching in mathematics. Oral and mental work continue to help children to rehearse and sharpen their mathematical skills. The use of models and images to represent situations and structures and to support methods and thinking all provide a context for sustained mathematical discussion. Teachers plan opportunities for more sustained discussion in groups and with the whole class to exemplify use of vocabulary and language, and to promote thinking, explanation and reasoning skills.

When working in groups, children can take different roles and use language appropriate to those roles. They can make effective use of time and resources to secure effective group working, for example by sharing tasks, checking on progress and amending plans. In Year 4, children create roles showing how behaviour can be interpreted from different viewpoints, and they develop scripts based on improvisation, exploring these differing feelings and viewpoints. Speaking and listening activities, drama and role-play allow children to create a sense of community and shared experience. They continue to support reading and writing and the development of mathematical knowledge, understanding and skills in all curricular areas.

## Literacy

The reading curriculum in Year 4 must be soundly based on a wide range of high-quality fiction, poetry and non-fiction and provide opportunities for children to apply their developing reading skills appropriately.

Teachers continue to plan to teach reading skills and comprehension explicitly through shared, guided and independent reading. A planned read-aloud programme continues to support independent reading and introduces children to a range of genres they may not choose for themselves. At the same time, children need many opportunities to choose their own books and other reading materials to develop personal tastes in text-types and authors. Teachers continue to make reading relevant, exciting and pleasurable as well as demonstrating its vital functional use in all aspects of life. They plan frequent opportunities for reading in literacy lessons, for cross-curricular purposes and outside school. In Year 4, as well as listening to teachers and other adults read, for example on CD, children need time to read silently for extended periods to develop fluency and stamina.

When securely based in evidence from the text, personal and analytical responses work together to deepen understanding. Children need to be aware of the reading skills required for different texts, for example navigating a website, following instructions or reading a novel, and how to vary them consciously to suit different purposes. The Year 4 reader needs to develop the ability to access and use a range of resources to find information and answers to formulate questions, deciding which are helpful and trustworthy and which to treat with caution or put aside.

For the majority of children, the balance of attention in reading will have fully shifted from decoding words to comprehending subject matter. Children's grasp of phonics by the beginning of Year 4 is so secure that they can decode many unfamiliar words sufficiently rapidly for the comprehension of the

sentence they are reading not to be disrupted. In the course of the year they decode words that are not in their spoken vocabulary and make sensible deductions about their meaning from their structure within the context of the sentence. This opens up the possibility of a limitless expansion of their vocabulary through reading.

Some children in Year 4 are still insecure with reading and continue to need support in learning skills and strategies and in maintaining interest and enthusiasm. Wanting to read is important as well as learning how to do it. As in Year 3, listening to high-quality texts, guided reading and targeted intervention programmes are essential elements for this group. It is vital to maintain the interest and motivation of struggling readers, giving them access to texts well beyond their own reading ability. Including non-fiction regularly helps learners to understand and internalise text organisation and exposes them to the linguistic features of explanation, discussion and persuasive texts. It helps the transition from writing based largely on spoken, personal language to the more formal style introduced in Year 4.

Talking, first-hand experience, listening to the teacher reading aloud and personal reading all provide the foundation for writing, which needs to be firmly located in a relevant, motivating context. Teachers emphasise the purpose and audience for all forms of writing. They encourage children to be experimental and adventurous and, wherever possible, give them choice and control over the content for writing.

Talking and oral rehearsal are still essential planning skills for writing in Year 4. Reading as they write is now an established skill, enabling children to check for meaning as they compose, adapt and make changes as they go along.

Narrative writing develops both in length and in structure, using good models from personal reading and stories read aloud. Clear chronological stages begin to be organised into paragraphs. Learners are increasingly using ambitious vocabulary and varied sentence construction to engage the reader. They create realistic or imaginative settings for stories, developing character through action and dialogue, and deliberately create effects such as suspense or foreboding. With an increasing awareness of others' viewpoint, the Year 4 writer is conscious of how vocabulary and grammatical choices affect the reader. Their word choices show more careful selection, for example through use of more appropriate or effective adjectives.

In Year 4, non-fiction writing continues to develop through recounts and reports and extends into explanations, persuasive and discussion texts. Children use some elements of formal, impersonal writing. Controlling structural organisation of non-fiction text-types through paragraphs and devices such as headings and subheadings is a major task for Year 4. At the same time, learners are mastering internal organisational features such as tense, pronoun agreement and connectives, which guide the reader to clear understanding of information, argument or point of view. They are becoming confident in using connectives and subordination in order to show why, when or where something happened. As children learn to use a variety of complex sentences, punctuation using commas within sentences develops. They begin to use the possessive apostrophe accurately.

Year 4 spelling is marked by increasing accuracy of high frequency and phonically regular words and the ability to apply a range of strategies to unfamiliar words. When spelling unfamiliar words with long vowels, children enter Year 4 with sufficient information to make an accurate choice, and for many fairly common words will correctly decide, on visual appearance, between two alternatives. They distinguish between the spelling and meaning of common homophones. By the beginning of Year 4, children have had a lot of practice in reading and spelling verbs with the inflected endings *-s*, *-ing* and *-ed* and plural nouns. These will need further revision in Year 4 and be extended to include verb stems ending in *y*, for example 'marry', 'married'.

Children use a neat, joined and legible handwriting style both in dedicated practice sessions and consistently across the curriculum. Teachers demonstrate and expect accurate spelling and punctuation, combined with legibility, modelling these three technical aspects of writing as a major aid

to meaning. Children use a range of computer-generated fonts and type sizes and continue to work towards increasing speed and accuracy in typing. ICT should be used for drafting and revising as well as producing a finished piece.

Further guidance and support on planning to meet the needs of Year 4 learners in literacy can be found in the planning section of the electronic Framework.

## Mathematics

In Year 4, children solve increasingly complex word problems and, where appropriate, use a calculator to do so. They identify the operations to use, record them using symbols in number sentences and talk about their methods and their solutions. Most children learn how mathematics is used to represent real-life problems and situations which can then be solved as a mathematics problem with the solution checked by presenting and interpreting it in the original context. Links to other curriculum areas and to out-of-school contexts demonstrate the role of mathematics as an important and valuable problem-solving tool.

Children are becoming more aware that problem solving often involves them in making informed decisions about the number sentences, statements, diagrams or images they can use to represent the problem, and which are then used to solve the problem. They suggest a line of enquiry and discuss how to approach it, collecting, organising and interpreting information to find solutions. They report solutions orally to other children and in writing, using diagrams and pictures that illustrate their reasoning and support their explanations. Teachers give children sufficient structure to help them to organise their ideas, thinking, solutions and explanations. With practice, children begin to take on more responsibility for organising and planning their activities in groups, and become more confident at discussing and sharing their approaches and methods.

Children generate number sequences given the start number and the whole number step size. They develop their knowledge of place value to include numbers with one and two decimal places. They meet negative numbers, order them and place them on a number line. Children identify equivalent fractions using practical resources and diagrams. They find unit fractions of numbers and quantities and identify pairs of fractions that total 1. Children use the vocabulary of ratio and proportion to describe the relationship between two quantities. Teachers provide children with a good balance of practical, oral and written work involving whole and part numbers so that children become confident with the important concepts underpinning number and the symbolism involved in representing these numbers.

Year 4 children derive and recall addition and subtraction facts that involve two-digit numbers. They use their knowledge to derive doubles and halves, the sums and differences of pairs of multiples of 10 and 100, and begin to apply this work involving 1000s. Children recall multiplication tables to  $10 \times 10$  and derive the associated division facts. They use the vocabulary 'multiple' and 'factor' when describing relationships between numbers. Children use their knowledge of number facts to calculate mentally. They develop and refine efficient methods of calculation for addition and subtraction and written methods to support multiplication and division. Teachers secure children's recall skills and their mental and written methods of calculation through demonstration and discussion. They give children regular and frequent short periods of practice and consolidation. Teachers introduce children to the skills needed to use a calculator efficiently to carry out calculations involving all four operations.

Children draw and classify polygons. They recognise and use line symmetry. They visualise common 3-D objects from 2-D drawings and make their nets. Children know that angles are measured in degrees and that one full turn is  $360^\circ$ . They compare and order angles less than  $180^\circ$ . Teachers develop children's use of language of shape, direction and position, generating situations and activities where children use the eight compass points and describe the position of squares on a grid.

Children read partially numbered scales more accurately. They choose and use standard metric units to measure, using decimal notation to record. Children draw and measure the perimeters of rectangles

and find the areas of shapes made up of rectangles by counting squares on a grid. They read times and interpret and calculate time intervals.

Children use data they collect to answer questions, making more sophisticated use of pictorial representation and ICT. They understand that changing a step size on a scale, a pictogram or a bar chart changes the diagram and they begin to identify when a scale is inappropriate for the data they are representing. Teachers identify contexts in other subject areas where children can apply the skills of measuring and data handling and help them to recognise the role that mathematics plays across the curriculum.

## **Embedding key aspects of learning**

In Year 4, thinking, communication and social skills continue to develop through literacy and mathematics. For example, reading and writing narrative and poetry develops skills in questioning, reasoning, evaluating and empathy. In mathematics the majority of children use their reasoning skills to identify and use patterns and relationships in numbers and shapes and to investigate a general statement, testing examples to determine whether they do or do not satisfy the statement. They describe shapes and solids, extending their use of vocabulary and language to do so. Literature expands self-awareness and often supports children dealing with difficult feelings in themselves and others. Non-fiction reading and writing develops clarity and precision of expression.

Children develop enquiry, information processing and communication skills as they retrieve information from a wide range of texts, including ICT, graphic and multimodal texts. They learn how to locate information across texts, and plan how to present it effectively, orally or in writing, for a specific audience. In mathematics, children decide what information they need in order to answer a question, and collect data which they organise, present and analyse. They interpret data from different sources and presented in different ways.

Children use texts as evidence, applying their own knowledge and experience to interpret and understand them. They continue to develop the ability to evaluate the usefulness of texts for specific purposes. Evaluating other people's writing provides children with tools to judge the effectiveness of their own.

Speaking, listening, reading and writing promote creative thinking by providing opportunities for children to make connections and to see relationships. They encourage children to visualise the past and to project into the future. They open up ideas and real and imaginary worlds to explore, with endless possibilities.

During Year 4 children develop a greater understanding of how they learn and most are increasingly able to set their own learning goals. Supported by the teacher, they use this self-awareness to set their own literacy challenges.

## **Inclusion**

### ***Children with SEN and/or learning difficulties or disabilities***

Where possible through the use of appropriate access strategies and support, Year 4 children with SEN will be working towards the same learning objectives as their peers. From time to time those working well below the level of the whole class may be working towards related objectives chosen from the relevant progression strand from an earlier year.

### ***Children who are gifted and talented***

Children who are working well above the overall level of their class or group will be engaging with a range of experiences designed to broaden or deepen their learning while working on the same learning objectives as their peers. From time to time they may also be accelerating the pace of their learning by working towards objectives chosen from the relevant progression strand from a later year.

## ***Children learning EAL***

Year 4 children learning EAL will be accessing curriculum content while also developing cognitive and academic language within whole-class, group and independent contexts. Through the use of appropriate access strategies and support, they will be experiencing a level of cognitive challenge consistent with that provided for their peers. Those Year 4 children who have become conversationally fluent will continue to receive support to develop the academic language and vocabulary associated with the subject and the language and grammar used to express ideas and thinking within the subject.

Further guidance and support on planning for inclusion to meet the needs of Year 4 learners in literacy and mathematics can be found in the planning section of the electronic Framework.

## **Year 5**

### **The learner**

Year 5 children are now securely established in Key Stage 2. The end of Year 4 assessment provides a clear benchmark of their attainment in literacy and mathematics and helps to determine the progress children need to make to reach age-related expectations by the end of the key stage. Using the assessment profile, together with ongoing teacher assessment, enables teachers to identify and plan how to address any gaps in learning within literacy and mathematics and across the broader curriculum. Helping children to recognise their progress sustains their motivation and involvement and a careful balance of support and increasing independence develops children's sense of responsibility as learners.

Effective daily literacy and mathematics teaching fosters new learning, consolidation through practice and opportunity to use and apply learning when solving problems and pursuing enquiries in all areas of the curriculum and beyond the school day. Children learn to build links to other curriculum areas and to recognise how their literacy and mathematics skills contribute to their overall development. The home-school link is sustained through homework and information that children are given about their next steps in learning.

At the start of Year 5 the majority of children have gained independent control of literacy. The challenge in Year 5 is to use this increased fluency and confidence to read and write extended texts in all curricular areas. Children need to widen their range of reading so they develop new tastes as well as pursuing established personal preferences.

Most children, as they enter Year 5, identify and summarise evidence from a text to support a hypothesis. They deduce characters' reasons for behaviour from their actions and explain how ideas are developed in non-fiction texts. They explain how writers use figurative and imaginative language to create images and atmospheres and compare how a common theme is presented in poetry, prose and other media.

Children learn to develop and refine their ideas in writing and are able to summarise and shape material and ideas from different sources to write convincing and informative non-narrative texts. They organise their writing into paragraphs and start to use adverbs and conjunctions to organise cohesion within them. They use language to create specific effects such as emphasis, humour, atmosphere, and settings and characterisations to engage readers' interests.

At the start of Year 5 most children have an understanding of numbers that include negative whole numbers, decimal numbers and fractions. They have a growing understanding of many mathematical concepts, including equivalence, estimation, proportion, scaling and angle. They are confident at calculating mentally and use place value to manipulate and partition numbers. During Year 5, children continue to consolidate and apply their knowledge of number facts to include numbers with up to two decimal places, and refine their written methods of calculation for all four operations so that they

recognise and use more efficient methods. They continue to use calculators as a calculating tool when solving problems or to look for patterns, and continue to practise mental methods of calculation.

The majority of children develop and use their understanding of properties of polygons to sort and classify them. They have a broad range of vocabulary to describe position, movement and direction which they extend to include parallel and perpendicular lines and the coordinate system. They identify angles and measure these angles to a suitable degree of accuracy. Children read timetables and part-numbered scales accurately, and use 24-hour clock notation and a calendar to calculate time intervals. They learn how to use mathematics to answer a set of related questions, collecting, sorting and organising relevant information, including by using ICT.

Children recognise how they use and continue to develop the key aspects of learning identified in *Excellence and enjoyment: learning and teaching in the primary years*.

## Speaking and listening

Speaking and listening, as well as being critical skills in their own right, continue to be the foundation of reading and writing skills. They support the development of mathematical thinking and ideas and promote learning across a broad and rich curriculum. Collaborative group work continues to provide opportunities to develop speaking and listening skills in a structured context. Children refine their understanding of the role and responsibilities of different participants. They plan and manage group tasks and understand different ways to lead and support others within the group. They understand how to move towards decision making in a collaborative way. When solving problems, children discuss how to and why they select the information and resources and decide on the approaches they plan to use to engage with the problem.

In Year 5, most children consciously vary their use of language to match different contexts, purposes and audiences, including recognising the need for more formal standard English. They experiment with ways of using spoken language to persuade and influence an audience in debates and role-play. Children have opportunities for performing both improvised and scripted performances, plays and poetry, as well as watching live and media performances. They describe and reflect on dramatic conventions, authors' style and effects.

Children's mathematical language extends to include the vocabulary of factors, chance, likelihood and percentages. Their communication skills are strengthened through increasing access to written methods of calculation and associated mental strategies and their social skills are developed through discussion as they explain their extension questions, reasoning and decisions.

## Literacy

The reading curriculum in Year 5 must be soundly based on a wide range of high-quality fiction, poetry and non-fiction, including ICT and other visual and multimodal texts, and must provide opportunities for children to apply their developing reading skills appropriately. It introduces children to a range of genres they may not choose for themselves, for example longer novels by significant and classic children's authors, stories from other traditions and cultures and longer classic poetry. A planned read-aloud programme maintains the interest and motivation of struggling readers, giving them access to texts well beyond their own reading ability. Including non-fiction on a regular basis helps learners to understand and internalise text organisation and exposes them to the linguistic features of non-chronological reports, explanation, discussion and persuasive texts. Hearing texts read aloud helps to embed the transition from writing based on spoken language to a more formal, impersonal style. Hearing complex sentences explaining cause and effect in explanations or alternative viewpoints in argument and persuasion gives children access to forms of sentence construction rarely used in their everyday speech.

Teachers continue to plan to teach reading skills and develop comprehension explicitly through shared, guided and independent reading with frequent opportunities for reading linked to other curricular areas

and life outside school. Children also need opportunities to choose their own books and other reading materials and time to read silently for extended periods to develop fluency and stamina. Teachers encourage a questioning, active response to texts that is based on personal response and empathy, with a growing awareness of possible multiple meanings. Most children begin to understand how perceptions can change with a different viewpoint and over time, as teachers encourage rereading. They help children recognise how authors create dramatic and humorous effects. Close analysis of the text deepens children's understanding of the significance of author's conscious (and sometimes unconscious) choices.

The majority of children have a repertoire of reading skills for different texts and vary them consciously to suit different reading purposes. Year 5 children access and use a range of non-fiction print and ICT resources to compare and explore information and ideas. They consolidate their research and study skills so they can locate and retrieve information efficiently. They are increasingly proficient at evaluating the usefulness of a range of materials, critically appraising them for bias and accuracy.

As children's reading capacity increases to meet the demands of the wider curriculum, they read more and more words they have not previously encountered. Decoding these words should present no problems and children will be able to deduce the meaning of some unknown words from the context the structure of word. There will, however, be other words that are embedded in more complex sentence structures which are more difficult to comprehend. Some children, satisfied that they are able to decode the word, will not recognise that the meaning has eluded them.

A minority of children in Year 5 may still be reading below age-related expectations. They continue to need support in applying the range of reading skills and strategies and in maintaining interest and enthusiasm. As in Year 4, listening to high-quality texts, guided reading and targeted intervention programmes are essential elements for this group.

Year 5 is marked by growing confidence, control and fluency in writing fiction and non-fiction. Talking and reading continue to provide the foundation for writing. At the same time, Year 5 learners are able to draw on a range of secondary sources. Teachers emphasise the purpose and audience for all forms of writing. They encourage children to be experimental and adventurous and, wherever possible, give them choice and control over their writing.

Teachers introduce children to oral and written planning tools. As extended writing develops, cumulative rereading over several writing sessions, sometimes with partner support, is an essential skill. ICT is increasingly the tool of choice for planning, revising and editing. Narrative writing develops beyond a chronological, linear structure. Children are increasingly confident in organising their work through paragraphs, extending into correct layout and punctuation of dialogue and reported speech. Extended writing allows time for developing consistency and complexity in characters, using a range of linguistic techniques experienced through hearing good models, storytelling and drama. In poetry and narrative, children use ambitious vocabulary and vary sentence construction and sentence order to engage the reader and create specific effects. They review the features of different text-types, and choose and adapt forms to fit the purpose and audience.

Most children make notes to support their reading and writing. They explore persuasion and its use of emotive language in depth, comparing it with the more balanced, rational style of argument, with its presentation of differing viewpoints. They are increasingly confident with the structure and internal organisation of different non-fiction text-types, further developing paragraphing, sentence construction and connectives to provide coherence and cohesion. Children learn to manipulate sentences in a controlled way to achieve particular effects and to adapt their sentences to the needs of differing readers and purposes. They learn to use a wide range of subordinators within complex sentences.

In Year 5, spelling and punctuation are generally accurate and automatic. Most children start to enquire into the origins of words and recognise how words from other languages have been imported and their meanings retained or slightly altered. They see relationships between words that share a root, which



aids their understanding and spelling of new words. Systematic teaching of spelling and punctuation conventions and strategies continues, and these are applied in all writing across the curriculum.

Children use joined handwriting for all writing, including drafting. They concentrate on increasing handwriting speed and continue to develop increasing speed and accuracy in typing. They use a range of ICT programs to present texts, making informed choices of which electronic tools to use for different purposes. Teachers demonstrate and expect accurate spelling and punctuation, combined with legibility, modelling these three technical aspects of writing as a major aid to meaning, as well as a courtesy to the reader.

Further guidance and support on planning to meet the needs of Year 5 learners in literacy can be found in the planning section of the electronic Framework.

## Mathematics

Children in Year 5 solve one-step and two-step problems involving all four operations and decimal numbers, and problems involving fractions. They choose and use the method of calculation they think is most appropriate for the calculations involved. Most children use a calculator to find fractions of quantities and measures that may involve a decimal answer which they interpret and decide whether to round up or down. When solving a mathematical puzzle children apply a systematic approach, using some of the information they are given to see what possibilities this allows or using simple cases or examples and building these up in the light of their observations.

Building on their understanding of place value developed in Year 4, most children state the value of the digits in numbers such as 10.08 and 10.8 and explain why 10.8 is the larger number. They partition decimal numbers and round them up or down, and relate fractions to their decimal representation. Teachers provide practical examples to help children understand percentage as the number of parts in every 100 and find simple percentages and fractions of amounts, for example calculating 10% of 5 kg and using this to work out other percentages such as 5% and 20%, halving and doubling and scaling up or down.

Children consolidate and apply their knowledge of addition and subtraction facts involving single-digit and two-digit whole numbers to decimal numbers. They continue to secure their speed of recall of multiplication tables to  $10 \times 10$ . Some children may need additional opportunities to develop their recall of these key facts. Children use their knowledge to calculate mentally, for example, 6 squared, the seventh multiple of 6 and related families of calculations such as:  $6 \times 3$ ,  $60 \times 3$ ,  $600 \times 3$  and  $6 \times 300$ ,  $6 \times 30$ ,  $60 \times 30$  and  $60 \times 300$ . They find common multiples of two numbers.

Children continue to determine whether a calculation can be done mentally. They use multiples of 1, 10, 100 and 1000 as landmark numbers to carry out mental and informal calculations. They multiply and divide numbers by 10, 100 and 1000 and describe the effect, recognising the transition between whole and decimal numbers. Children draw on their knowledge of number facts and place value to refine their use of the expanded methods and use efficient written methods to add and subtract whole numbers and decimals with one or two places. They begin to express a remainder as a whole number, a fraction or a decimal, for example that  $33 \div 4$  is: 8 remainder 1,  $8\frac{1}{4}$ , or 8.25. Teachers provide opportunities for children to consider when the context of a division problem requires rounding. The majority of children refine and use efficient written methods to multiply whole numbers and decimal numbers, and to divide whole numbers to 1000 by a single-digit number.

Children construct and visualise shapes with increasingly accurate representation. They use coordinates in the first quadrant to read and plot points that form the vertices of shapes. They identify a point to complete a shape and determine the position of points and shapes after a translation or a reflection. They complete patterns with two perpendicular lines of symmetry.

Children identify acute and obtuse angles and estimate the size of angles. They measure and draw acute and obtuse angles with increasing accuracy. Children read scales accurately and interpret a

reading that lies between two unnumbered divisions, for example when reading time on an analogue clock, capacity of liquid in a jug, or frequencies on a bar chart. Children choose, use and record standard metric units within mathematics lessons and across the broader curriculum. They convert larger units to smaller units such as 0.6 litres to 60 centilitres or 10.5 cm to 105 mm.

Children describe the likelihood of particular events. They know that the most frequently occurring event is the mode and find it from frequency tables and bar charts. They represent data on bar charts using scales labelled in different intervals. They know which table, chart or graph to use to enhance the visual representation and precision, and use and interpret line graphs appropriately. Teachers provide opportunity for children to explore cases where lines joining points on a graph do and don't have meaning.

## **Embedding key aspects of learning**

In Year 5, thinking, communication and social skills continue to develop through literacy and mathematics. Reading and writing narrative and poetry develop skills in questioning, reasoning, evaluating and empathy. In mathematics, children use reasoning to propose general statements and determine if examples meet the statement sometimes, never or always. They decide and confirm that their solutions to problems are sensible and justify their choices.

Literature expands self-awareness and is increasingly a window on other worlds and other people's lives and emotion. Non-fiction reading and writing develops clarity and precision of expression. Children develop enquiry, information processing and communication skills as they retrieve information from a wide range of sources, including ICT, graphic and multimodal texts. In mathematics, making suggestions for extensions to a line of enquiry and further questions they can answer from the data they have collected, organised and presented develops children's information processing skills.

Children use texts as evidence, applying their own knowledge and experience to interpret and understand them. Evaluating other people's writing provides them with criteria and tools to judge the effectiveness of their own. Children evaluate possible approaches to calculation they might use and the role of the calculator as a tool for solving problems.

Speaking, listening, reading and writing promote creative thinking by encouraging children to visualise the past and to project into the future. Children become better at initiating and sustaining their own mathematical activity and use, for example, their knowledge of shape and measures to be increasingly creative when following a line of enquiry and generating patterns and shapes of their own. This independence of mind is enhanced by sharing their thinking with others and listening to their ideas during collaborative activity. Children's increasing use of ICT offers them access to a tool that they can use to access more and increasingly diverse information and to organise and present their work.

During Year 5 children's understanding of how they learn continues to grow. They use this self-awareness to set their own literacy and mathematics challenges and evaluate their successes in meeting these challenges.

## **Inclusion**

### ***Children with SEN and/or learning difficulties or disabilities***

Where possible through the use of appropriate access strategies and support, Year 5 children with SEN will be working towards the same learning objectives as their peers. From time to time those working well below the level of the whole class may be working towards related objectives chosen from the relevant progression strand from an earlier year.

### ***Children who are gifted and talented***

Children who are working well above the overall level of their class or group will be engaging with a range of experiences designed to broaden or deepen their learning while working on the same learning

objectives as their peers. From time to time they may also be accelerating the pace of their learning by working towards objectives chosen from the relevant progression strand from a later year.

### ***Children learning EAL***

Year 5 children learning EAL will be accessing curriculum content while also developing cognitive and academic language within whole-class, group and independent contexts. Through the use of appropriate access strategies and support, they will be experiencing a level of cognitive challenge consistent with that provided for their peers. Those Year 5 children who have become conversationally fluent will continue to receive support to develop the academic language and vocabulary associated with the subject and the language and grammar used to express ideas and thinking within the subject.

Further guidance and support on planning for inclusion to meet the needs of Year 5 learners in literacy and mathematics can be found in the planning section of the electronic Framework.

## **Year 6**

### **The learner**

Year 6 children are coming to the end of the primary phase of their education. The end of Year 5 assessment provides a clear benchmark of their attainment in literacy and mathematics, enabling teachers and children to identify how much progress they have made and what they still need to do to meet end of key stage expectations. These assessments will identify both the achievements children have made and those areas or aspects where gaps in understanding remain and need to be addressed in order to secure the necessary progression in learning. Use of the assessment profile, together with ongoing teacher assessment, informs planning and teaching across the broader curriculum. Helping children to recognise their progress maintains their motivation and desire to improve.

Teachers balance the provision of support and the promotion of increasing independence in order to develop children's sense of responsibility as learners. Children are increasingly involved in making decisions about their learning. As children come to the end of Key Stage 2 they select appropriate strategies, techniques and skills to complete an activity or solve a problem and suggest ways tasks or problems could be extended. By posing 'What if...?' questions, children identify lines of enquiry for themselves and for others to follow. The home-school link continues to play a critical role and regular homework provides opportunities to consolidate and extend learning.

Effective daily literacy and mathematics teaching provides new learning, consolidation through practice and opportunities for children to use and apply their learning as they solve problems, research, interpret, analyse and present information. Teachers provide regular opportunities for children to apply their learning to practical experiences in all areas of the curriculum and beyond the school day. This strengthens children's knowledge, skills and understanding and emphasises the role that literacy and mathematics play in securing effective communication, thinking and reasoning skills.

At the start of Year 6, reading and writing are rapidly becoming confident, automatic skills for the majority of children. This gives children greater choice and control over what and how they learn as well as access to an ever-expanding range of printed and ICT resources. The challenge in Year 6 is to embed the skills and knowledge acquired over the primary years into learning that transfers to the next key stage – and lasts a lifetime.

Entering the final year of their primary education, the majority of children bring well-developed counting skills, secure knowledge of number facts and a range of calculation strategies, mental and written. They break down complex calculations into simpler steps and make informed decisions to use one or more calculation strategies in the process of solving a problem. They use mental and written methods of calculation and use a calculator efficiently and accurately where appropriate. Children's

understanding of numbers and the number system includes positive and negative whole numbers, common fractions and decimal numbers with up to three places. They use their knowledge of the relationships between fractions, decimals, percentages, ratio and proportion to express quantities in a variety of ways and to solve problems. Mathematics lessons provide an opportunity to develop the skills of analysing patterns, relationships and information that will prove useful to children throughout their lives.

Children's growing ability to select, use and apply their learning in literacy and mathematics and across the broader curriculum ensures that they are acquiring many of the key aspects of learning identified in *Excellence and enjoyment: learning and teaching in the primary years*.

## Speaking and listening

Speaking and listening, as well as being critical skills in their own right, continue to underpin reading and writing in a broad and rich curriculum. Oral and mental work in mathematics continues to help children to derive and use number facts, to extend their thinking and understanding as they offer explanations and justify their decisions and choices, to work collaboratively on planning and to develop a chosen line of enquiry.

The Year 5 work in literacy on persuasion informs whole-class debates in Year 6. Improvised and scripted drama reaches a high standard of polished performance, using a range of dramatic techniques and conventions acquired from play-reading and watching live or recorded performances.

In mathematics, children take part in whole-class discussions and debates on the accuracy of measurement and the most efficient way to undertake a range of calculations. They evaluate and agree strategies and solutions to a problem. Children draw on appropriate techniques, images, vocabulary and resources to illustrate their ideas and conclusions. They use their knowledge of presentation styles and techniques to put forward their views to others with clarity.

Group work provides social opportunities to speak and listen in a structured context, developing the ability to give and receive constructive feedback. Negotiating, resolving conflicts and reaching agreements using effective communication skills are key aspects of speaking and listening in Year 6, practised in formal and informal situations.

## Literacy

The reading curriculum in Year 6 remains soundly based on a wide range of high-quality fiction, poetry and non-fiction, including ICT and other visual and multimodal texts, and continues to provide opportunities for children to extend and apply their repertoire of reading skills. Teachers choose from the full range of fiction and poetry available. They include longer novels, classic texts and significant authors as well as sophisticated picture books appropriate for this age group. A planned read-aloud programme continues to support and extend independent reading and keep up the interest and motivation of struggling and less-able readers, giving them access to texts well beyond their own reading ability. Including non-fiction regularly in the read-aloud programme immerses children in the linguistic features of non-chronological reports, explanation, discussion and persuasive texts. It helps to consolidate the transition to the formal, impersonal style needed for mature expression in some non-fiction genres.

Hearing examples of complex sentences, which capture cause and effect in explanations and alternative viewpoints in argument and persuasion, gives learners access to forms of sentence construction less frequently used in everyday speech. Teachers continue to plan to teach reading skills and comprehension explicitly through shared, guided and independent reading of paper-based and ICT texts. Teachers plan frequent opportunities for reading in literacy lessons, for cross-curricular purposes and outside school. In Year 6, readers will be integrating and applying the whole range of independent skills gained over the primary years across all areas of the curriculum.

Teachers encourage an active and critical response to texts, with a growing awareness of multiple themes and meanings. Children compare and contrast texts in order to find patterns and to make links. They understand how perceptions can change with differing viewpoints and over time, through for example reading biographies and autobiographies or rereading familiar texts. Most children recognise how authors use sophisticated devices such as rhetorical questions to influence readers and they identify themes and viewpoints within texts.

They have acquired a developed repertoire of reading skills for different texts and adapt them consciously to suit different reading purposes. The majority of children are able to decode effortlessly so that unfamiliar words are read with little or no hesitation. Their active attention is on the content of their reading and writing, not the individual words. When writing, children give most of their attention to what they want to say and how they can express it most effectively.

In Year 6, children begin to increase their knowledge of morphemes and the origins of words so that they are able to access the meanings of words they have not yet encountered in print and words that are not even in their spoken vocabulary. They access and use a wide range of non-fiction print and ICT resources to compare and explore information and ideas in depth. They consolidate their research and study skills so they can locate, retrieve and record information efficiently. They are proficient at evaluating the usefulness of a range of materials for specific purposes, critically appraising them for bias and accuracy.

Children with insecure reading skills benefit from carefully targeted group and individual intervention programmes, alongside guided reading. To avoid disillusionment and disaffection, learners must access and enjoy texts at their language comprehension level, for example through picture books and graphic texts, and listen to high-interest texts beyond their reading level.

Year 6 is marked by confidence, control and fluency in writing fiction and non-fiction. Talking, first-hand experience, the read-aloud programme and personal reading continue to provide the foundation for writing. Children draw on a range of secondary sources. Writing still needs to be firmly located in a relevant, motivating context including those in other curriculum subjects and themes. Teachers emphasise the purpose and audience for all forms of writing. They encourage children to be experimental and adventurous and, wherever possible, give them choice and control over the content and organisation of their writing. Children use ICT and a range of multimodal devices to create both fiction and non-fiction texts.

By the end of Year 6, the majority of children are secure in the different stages of the writing process and can review their own work critically. They choose different planning tools for a range of writing. They understand the need for re-drafting at organisational level for a whole text as well as surface revision of spelling and punctuation. They work consciously at writing as a reader.

Narrative structure continues to develop in an adventurous way, for example including stories within stories, flashbacks, beginning in the middle or at the end of events. Year 6 writers are confident in organising their work through paragraphs, including correct layout and punctuation of dialogue and reported speech. Extended writing allows time for developing complexity in narrative structure, characters and settings, using a range of linguistic techniques experienced through hearing and reading good models, storytelling and drama. Children are competent in the main non-fiction genres and extend their range into journalistic writing, biography and autobiography. They are able to adapt and combine genres effectively.

This is the year for gaining control over the use of a range of complex sentences and their internal punctuation to create subtle effects of meaning. Children revise the linguistic and grammatical features of non-fiction text-types and ways of ensuring coherence through paragraphs and cohesion through connectives. They write consistently in their chosen form, with the appropriate degree of formality for their purpose and audience. They learn the difference between active and passive voice, and use the terms 'active' and 'passive' in discussing those forms. They use conditionals to signal or hint at possibilities, uncertainty, doubt or ambiguity.

In Year 6, the majority of children routinely spell the majority of words correctly and have a range of strategies to apply to difficult or unfamiliar words. They use dictionaries, spellcheckers and ICT confidently to proofread their work. They have developed a personal, legible handwriting style which they can adapt to suit different purposes.

Further guidance and support on planning to meet the needs of Year 6 learners in literacy can be found in the planning section of the electronic Framework.

## Mathematics

In Year 6 children solve multi-step problems, including those that involve fractions, decimals and percentages. Through discussion and application, they develop and refine their strategies to solve increasingly complex problems, recognising that to simplify a problem is a helpful starting point. Teachers ensure that children have frequent opportunities to use and apply mathematics across the curriculum. This develops children's understanding and enjoyment of mathematics and their ability to use mathematics as a problem-solving tool.

The majority of children work more systematically and independently. They organise their work clearly, interpreting results and reflecting on the efficiency of their methods. They recognise that representing a problem may require a diagram, numbers or calculations, and that after solving the problem, the solution needs to be interpreted and checked in the original context.

Children describe, interpret and use patterns and relationships which they observe. Most use words then letters as symbols to construct and use simple expressions or formulae. Children make and test predictions and general statements. They make deductions from given statements or information. They explain their reasoning and justify their choices and conclusions.

The majority of children manipulate a range of types of numbers. They order positive and negative whole numbers and decimal numbers with up to three decimal places and position these on number lines. They find the difference between positive and negative numbers in context. They partition whole and decimal numbers, using place value to compare and order them. Children understand how to simplify fractions by cancelling, dividing the numerator and denominator by a common factor. They order a set of fractions by converting them to equivalent fractions with a common denominator. They express a larger whole number as a fraction of a smaller whole number and convert it to a mixed number. They find fractions and percentages of numbers and quantities. They solve problems involving direct proportion. They scale quantities up or down, such as the ingredients in a recipe. Teachers embed these experiences in practical contexts and activities so that children develop an understanding of the kinds of situations where proportional thinking is applicable.

In Year 6, children continue to consolidate their knowledge of number facts involving all four operations and use known facts to derive related facts. The majority use these facts to add and subtract mentally whole numbers and numbers with one decimal place. They apply their knowledge of multiplication and division facts to multiplication and division of two-digit numbers that include decimals. They use their knowledge of place value to multiply whole numbers by 1000, 100, 10, 0.1 and 0.01 and by multiples of these.

Most children have a secure, reliable method of written calculation for each operation and recognise when one method may be more efficient than another, for both whole numbers and decimals. They recognise when mental methods are more appropriate and use a calculator to solve problems where sequences of addition and subtraction calculations are involved. They continue to approximate first and check their answers. They are able to explain the method they use and the steps involved.

Children make and draw shapes with increasing accuracy. They recognise, describe and visualise solids with parallel and perpendicular edges or faces. They use this knowledge to recognise how the nets of these solids are formed and how a solid can be made from a given net. Children use their growing understanding of angles to classify and describe 2-D shapes. They measure the angles in

shapes they draw to check estimates and to test statements. They know that a complete turn is four right angles or  $360^\circ$  and use this to calculate the size of angles around a point.

Children use the coordinate system to identify and plot points in the first quadrant. They draw shapes on grids of different types, determine and describe the positions of the shapes after a transformation, including a reflection, a translation or a rotation through a quarter or half turn about its centre or a vertex. The majority of children recognise that the shape remains identical after one of these transformations and use this knowledge to identify congruent shapes in patterns, pictures and diagrams.

Teachers plan practical problems that give children hands-on experience of reading and interpreting the scales on measuring instruments where the intervals are large, few or mostly unlabelled. Children recognise that taking a measurement involves a comparison to agreed standard units and that the measurement made is approximate. They record their results using an appropriate unit and to a required degree of accuracy. Children calculate the perimeter and area of a rectangle and compound shapes that can be split into squares, half squares or rectangles.

Children develop their understanding of the language of chance and likelihood by describing situations where outcomes are equally likely. They begin to place outcomes from observed events and from experiments onto a numbered probability scale to indicate the chances of occurrence, using 0 to represent 'impossible' and 1 to represent 'certain'.

Children solve problems by collecting data, processing the data using tables or lists and presenting it to show findings and to draw conclusions. They use the mode, range, median and mean to represent and describe a set of data. They construct frequency tables with single and grouped data items and represent these as bar charts. They extend their use of line graphs to interpret graphs where intermediate points have meaning, for example on a conversion graph. Children interpret tables, charts and databases they have generated using ICT or taken from a secondary source such as another subject area. The majority of children interpret pie charts and use their knowledge of fractions and percentages to estimate the size of sectors in a pie chart. They recognise that pie charts that look similar can represent different totals and that a small sector in one pie chart can represent more items than a big sector on another.

## Embedding key aspects of learning

In Year 6, thinking, communication and social skills continue to develop through literacy and mathematics. For example, reading and writing narrative and poetry develop skills in questioning, reasoning, evaluating and empathy. Literature expands self-awareness and gives insights into other worlds and other people's lives and emotions. Non-fiction reading and writing develops clarity and precision of expression. In mathematics, many Year 6 children have the knowledge and confidence to talk in depth about mathematical concepts and to explain their solutions, decisions and reasoning.

Children develop enquiry, information processing and communication skills as they retrieve information from a wide range of texts, including ICT, graphic and multimodal texts. They learn how to locate information across texts and plan how to present it effectively, orally or in writing, for a specific audience. In mathematics, children plan and carry out a cycle of handling data, predicting possible and unlikely outcomes and making judgements about the quality of their enquiries. They consider how to present their results most effectively and discuss how confident they are in their conclusions, giving a rationale for their beliefs and taking into account the opinions of others.

Most children use texts as evidence, applying their own knowledge and experience to interpret and understand them. They critically evaluate usefulness for specific purposes, bias and accuracy. Evaluating other people's writing provides them with criteria and tools to judge the effectiveness of their own. In mathematics, children discuss and compare alternative approaches to solving a problem. They try different approaches and strategies when struggling to solve a problem or to explain a concept to

others. They modify their steps towards a solution in the light of feedback. Children challenge their own and others' assumptions.

Literacy and mathematics offer children ideas and access to real and imaginary worlds that they can explore with endless possibilities. As they leave Key Stage 2, the majority of children evaluate progress in their learning and offer ideas for improvement. They use this self-awareness to set their own literacy and mathematics targets.

## **Inclusion**

### ***Children with SEN and/or learning difficulties or disabilities***

Where possible through the use of appropriate access strategies and support, Year 6 children with SEN will be working towards the same learning objectives as their peers. From time to time those working well below the level of the whole class may be working towards related objectives chosen from the relevant progression strand from an earlier year.

### ***Children who are gifted and talented***

Children who are working well above the overall level of their class or group will be engaging with a range of experiences designed to broaden or deepen their learning while working on the same learning objectives as their peers. From time to time they may also be accelerating the pace of their learning by working towards objectives chosen from the relevant progression strand from a later year.

### ***Children learning EAL***

Year 6 children learning EAL will be accessing curriculum content while also developing cognitive and academic language within whole-class, group and independent contexts. Through the use of appropriate access strategies and support, they will be experiencing a level of cognitive challenge consistent with that provided for their peers. Those Year 6 children who have become conversationally fluent will continue to receive support to develop the academic language and vocabulary associated with the subject and the language and grammar used to express ideas and thinking within the subject.

Further guidance and support on planning for inclusion to meet the needs of Year 6 learners in literacy and mathematics can be found in the planning section of the electronic Framework.



**Audience:** Headteachers, teachers and practitioners in primary schools, middle schools and Foundation Stage settings

**Status:** Recommended

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