Further information and support

At Pearson, we are committed to helping you make curriculum change as manageable as possible for you and your children. Our support comes in many different forms, including useful information on the new primary curriculum, free planning tools, classroom tips, and more. **www.pearsonprimary.co.uk/primarycurriculumchange**

Final curriculum documents and programmes of study
(The Department for Education)
www.gov.uk/government/collections/national-curriculum

Good practice in primary mathematics: evidence from 20 successful schools (Ofsted)
www.ofsted.gov.uk/resources/good-practice-primary-mathematics-evidence-20-successful-schools

Find out more about **Abacus**, try the free samples online, or request a free demo in your school
www.pearsonprimary.co.uk/abacus2014

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Your guide to the 2014 primary maths curriculum

ALWAYS LEARNING

PEARSON

Your guide to the 2014 primary maths curriculum

The new primary curriculum in England is **statutory from September 2014**.

We know that curriculum change brings with it uncertainty and upheaval. This year in particular the demands of the new curriculum will be challenging, with children and teachers being pushed further and faster than ever.

This guide is designed to help you tackle the new primary maths curriculum with confidence, and **make it your own**. It highlights the key changes to the programme of study for maths, and how and when they will affect you and your children. We've also included practical tips and suggestions.

What's inside?

disapplication
levels going secondary ready algebra
recall and apply conceptual understanding
core knowledge calculation policy demonstrable progress
calculations with fractions complex problems solutions
long multiplication mixed numbers formal written methods
mathematical reasoning less data handling domains
calculators banned attainment targets long division
problem solving baseline check 24-hour clocks
number facts models and images statistics
depth confidence fundamentals practice,
fluency relationships
practice,
practice
competence
data

What are the key changes to the primary maths curriculum?

The new primary curriculum is statutory from September 2014. Its focus is very much on core knowledge, and the 'nuts and bolts' of subjects that will ensure children have a strong basis on which to build future learning.

So, what does this mean for maths?

The new programme of study for maths is set out on a **year-by-year basis**, however schools have some flexibility in when they teach content within each key stage. Saying that, it is worth noting that although flexibility is allowed, **schools are required to set out their school curriculum for mathematics** on a year-by-year basis and make it available online.

The maths programme of study brings with it an increase in the **amount of content** that needs to be taught and a **greater level of difficulty and detail** in some areas of mathematics, particularly calculation. Some content has moved 'down' by one or two years, meaning children will be expected to master some things earlier than they do now, for example some of what has been taught previously in Years 5 and 6 is now covered in Year 4.

The new programme of study for maths is **more specific about using standard written methods** for the four operations, and using these earlier. There is a lot **more emphasis on calculating and solving problems with fractions and decimals** and less on data handling (now called statistics).

What will children be expected to do in Year 1?

These are examples of what children will be expected to do in each year group. A full document is available as part of the Abacus Professional Development course.

Objective	Moved from
Read and write numbers to 100 in numerals.	Year 2
Recognise, find, and name a half as one of two equal parts of an object, shape or quantity.	Year 2
Recognise, find, and name a quarter as one of four equal parts of an object, shape or quantity.	Year 2

What will children be expected to do in Year 2?

Objective	Moved from
Compare and sequence intervals of time.	**NEW**
Tell and write the time to five minutes.	Year 3
Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of two quarters and one half.	Year 3

What will children be expected to do in Year 3?

Objective	Moved from
Add and subtract fractions with the same denominator.	**NEW**
Tell and write the time using 24-hour clocks.	Year 5

What will children be expected to do in Year 4?

Objective	Moved from
Know times tables up to 12 × 12.	Rather than up to 10 × 10 by Year 5
Use factor pairs in mental calculations.	Year 5
Interpret and present continuous data using line graphs.	Year 6
Multiply 3-digit numbers by a 1-digit number using a standard written method.	Year 5
Add and subtract numbers with up to 4-digits using the formal written methods of columnar addition and subtraction where appropriate.	Year 5
Simple measure and money problems involving fractions and decimals to 2 decimal places.	Year 5
Read Roman numerals to 100.	**NEW**

What will children be expected to do in Year 5?

Objective	Moved from
Recognise and use cube numbers.	**NEW**
Use long multiplication for a 4-digit by a 2-digit number.	**NEW**
Read Roman numerals to 1000.	**NEW**

What will children be expected to do in Year 6?

Objective	Moved from
Perform calculations with fractions, including adding and subtracting fractions with different denominators and mixed numbers, and multiplying pairs of proper fractions.	**NEW**
Do simple algebra, such as finding pairs of numbers that satisfy number sentences involving two unknowns.	**NEW**
Use long division for a 4-digit by a 2-digit number.	**NEW**

Based on a comparison of the '2014 Mathematics Programmes of Study' to the '2006 Renewed Maths Framework'.

What's happening and when?

January 2011

National curriculum review launched.

September 2013 - July 2014

'Old' national curriculum disapplied in many subjects and year groups, to enable schools to start planning and implementing the new curriculum.

September 2013

Final programmes of study released.

March 2014

Government release response to the consultation on primary assessment and accountability.

Draft Test Frameworks published for KS1 and KS2.

September 2014

New national curriculum becomes statutory for all maintained schools (except in English, maths and science in Years 2 & 6).

Autumn 2014

New performance descriptors to be released.

September 2015

New national curriculum becomes statutory for all maintained schools in **English, maths and science in Years 2 & 6.**

Summer 2016

New SATs begin.

Assessments take place at KS1 with test results reported as a scaled score. At KS2 scaled scores to be reported to children and parents.

New floor standards require schools to ensure either 85% of children reach a new attainment measure by the end of KS2 (similar to current Level 4b) or children have made sufficient progress from their baseline.

September 2016

EYFS Profile no longer compulsory.

Autumn 2016

First Reception baseline test (pilot in 2015).

Summer 2022

First cohort of children taking baseline assessment are assessed on progress made since Reception.

Five top tips for supporting your children with the new curriculum

1. Keep number facts on the boil

It is critical that children have a key bank of number facts to draw on when they are tackling calculations, both written and mental, throughout primary school.

> *As pupils progress through primary school, instant recall of tables and associated number facts … become increasingly important. Without such crucial knowledge, pupils struggle to multiply accurately and quickly.*
> Good practice in primary mathematics: evidence from 20 successful schools – Ofsted, Nov 2011

Tip: In the new curriculum there is no time for you to re-teach number facts. Consider building quick bursts of maths at opportune moments into the day e.g. when children are queuing up for assembly, or coming into the classroom. Visit **www.pearsonprimary.co.uk/abacuscurriculum** for some fun activities you can do with your class.

In Abacus we provide hundreds of activities for keeping maths facts "on the boil". Five-Minute Filler activities, for Foundation/Key Stage 1, are designed to fill any spare minutes you may have throughout the day e.g. when children are queuing up for lunch. There are also daily interactive Quick Maths activities for Key Stage 2 and Fluency Fitness PowerPoints, which are great for putting up on the whiteboard as children come into the lesson.

2. Develop a calculation policy for your school

A developmental approach to calculation methods and strategies, coupled with a set of consistent models and images, is critical for children's success in maths. Without a clear calculation policy, it is very easy for children to be taught in a different way, by different teachers, from one year to the next, or for the progression from informal to formal written methods to be unclear. Some children may be confident and successful in calculation using *informal* written methods but may never progress to *formal* written methods for some of the operations.

> *A feature of strong practice in the maintained schools is their clear, coherent calculation policies and guidance, which are tailored to the particular school's context. They ensure consistent approaches and use of visual images and models that secure progression in pupils' skills and knowledge lesson by lesson and year by year.*
> Good practice in primary mathematics: evidence from 20 successful schools – Ofsted, Nov 2011

Tip: Consider developing a new calculation policy for your school in light of the new curriculum. Visit **www.pearsonprimary.co.uk/abacuscurriculum** to download a free copy of our Abacus editable calculation policy, which has been written for the new curriculum. You can also take a peek at the key methods and strategies document for Key Stage 1 and a calculation video of Ruth Merttens explaining how to teach mental subtraction.

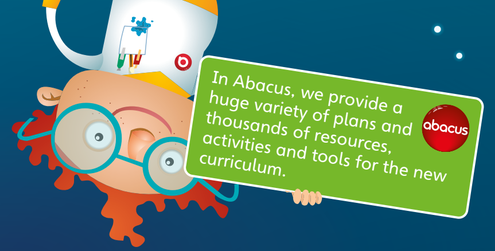
In Abacus, we provide tools and videos to support you in building a whole-school approach to calculation. These can be used to prompt reflection and discussion in a staff meeting. They include:

- an editable calculation policy.
- an overview of the key methods and strategies used for mental and written calculation in Abacus.
- videos that explain how these key strategies and methods are employed in Abacus.
- a selection of tools and resources to support the teaching and learning of calculation and those vital models and images.

3. Phase in the new curriculum

The children starting Year 2 and 6 in 2014 will be assessed in their next SAT on the old curriculum. The new curriculum SAT will only come into play in Summer 2016.
Find out more on pages 12-13.

Tip: Consider phasing in the new curriculum in your school.
Turn to page 14 for Ruth Merttens' suggestions on how to do this.



4. Develop mental fluency

As you will have heard, calculators are now banned in the KS2 SAT. This means children need to develop mental fluency in order to be confident and speedy in tackling mental problems, and in carrying out the mental calculations necessary for written methods.

> *Calculators should not be used as a substitute for good written and mental arithmetic. They should therefore only be introduced near the end of Key Stage 2 to support pupils' conceptual understanding and exploration of more complex number problems, if written and mental arithmetic are secure.*
>
> National Curriculum in England: mathematics programmes of study - DfE, 11th September 2013

Tip: Ensure that key maths functions like doubling and halving are really secure.

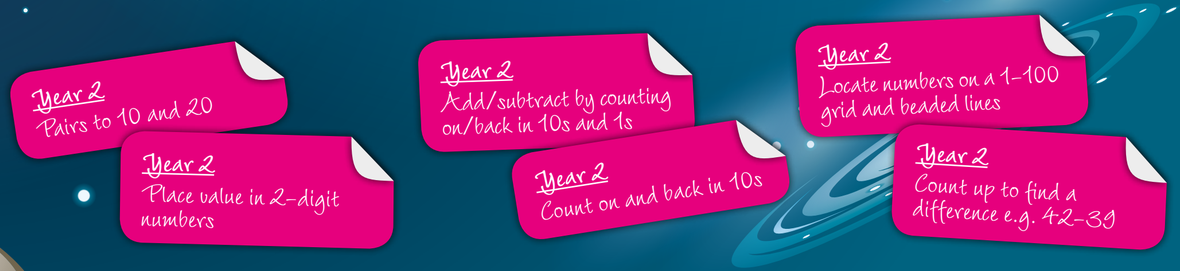
abacus The Abacus pupil world contains hundreds of lively and exciting maths practice games, perfect for developing children's mental fluency. Try some of the games at **www.pearsonprimary.co.uk/abacuscurriculum**.

5. Make the maths curriculum your own

The programme of study for maths gives you *goalposts* to reach by the end of each year group. Whilst it all needs to be covered, there is flexibility within a key stage. It is up to you to make your own choices about how you prioritise, and what topics you invest your time in. What will you cover quickly, and what will you do more slowly to ensure it is secure? For example, Roman numerals versus a solid understanding of place value and our number system.

> *If we all do those things we can make the new curriculum our own. I think it will cease to be Mr Gove's curriculum and become our curriculum. I'd like to see it become the teachers' curriculum.*
>
> Ruth Merttens, BETT Show 2014

Tip: Get together as a staff, and working in year groups, have a look at the curriculum for your year. Agree six areas of maths that you'd want children to be really secure in by the end of the year and write them down on post-it notes. Next, have a discussion about what models and images would support children in becoming secure in these areas. Share the post-it notes with the year groups above and below yours to see if there are any missing skills or gaps. Use this to create a list of key skills for each year group and keep these clearly displayed/shared with all who work with each year group. You might also consider self-assessment opportunities.



abacus We believe you are the expert and only you know your class. So we carefully crafted Abacus to put you in control of *what* to teach, *when* to teach it, *how long* to spend on it, and *who* to teach it to. The Abacus toolkit gives you everything you need to make these decisions, including a detailed skills progression for every area of maths e.g. number and place value.

SATs - which years do what and when?

Children starting Year 4 and 5 in 2014 will be the first two groups to be assessed on the new national curriculum in their Year 6 SAT in 2016 and 2017.

Which curriculum is statutory?

	Year 1	Year 2*	Year 3	Year 4	Year 5	Year 6*
2014-15	New	Old	New	New	New	Old
2015-16	New	New	New	New	New	New

**SATs*

How and when to introduce the new maths curriculum in your school - by Ruth Merttens

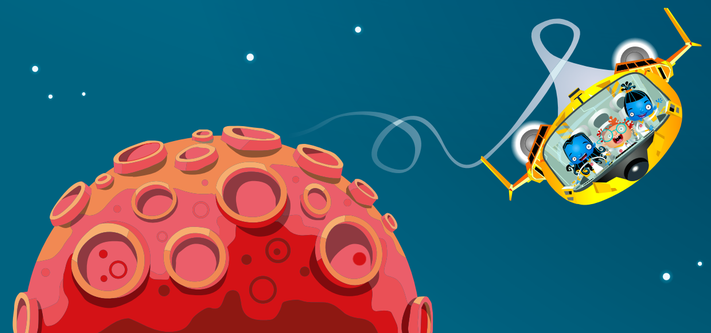
We know that the new maths curriculum becomes statutory in September 2014 for all children in Years 1, 3, 4 and 5. Children starting Year 2 and Year 6 in September 2014 will be assessed on the old National Curriculum.

Our advice for the academic year 2014 to 2015 is as follows:

It is sensible to teach all children, from Year 1 to Year 5 inclusive, on the new curriculum.
For Year 6, see a special note on page 16.

Year 2 children

The curriculum in Year 2 is not very different from the previous one, other than being a little more demanding. This means that performance in the 2015 SATs might be enhanced by covering the new curriculum requirements and also that these children will be better prepared for starting Year 3 on the new curriculum in September 2015.

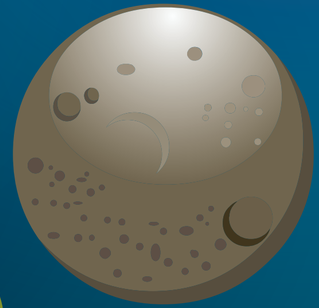


Year 1/2

Abacus covers both the old (we provide a matching chart) and the new, so all bases are covered.

Year 3, Year 4 and Year 5 children

Year 4 and Year 5 children who were taught using the old curriculum in 2013-14, and who will be starting on the new curriculum this academic year, will not possess some of the necessary prerequisite skills. It will sometimes be appropriate in Year 4 and Year 5 (and occasionally in Year 3) to spend two weeks teaching a one-week topic. Focusing on ensuring that children have acquired prerequisite skills means that the Year 4 and Year 5 curriculum will take longer to complete. At the end of the year, the next teacher will need to be informed as to where children have got to in the teaching programme.



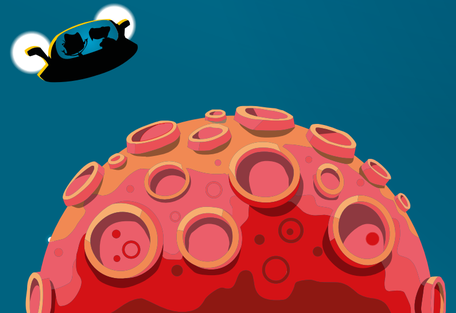
Year 3, 4 and 5

In Abacus we clearly outline the prerequisite skills needed for every step on the Abacus progression ladders. The prerequisites are fully mapped to a bank of resources and lessons so that if a child, group, or even your whole class is struggling with a concept you can check whether any of the prerequisite skills are missing and find resources to help teach and assess them.

We also provide support for in-fill teaching to enable you to teach, and for children to acquire, these necessary skills.

Year 6 children

Many schools are wondering what to do with Year 6 in 2014-15 because the new curriculum does not apply to Year 6, and this cohort will be the last to be assessed on the old curriculum. The majority of you will probably wish to go with your existing provision to ensure your Year 6 children are fully prepared for their SATs.



Year 6

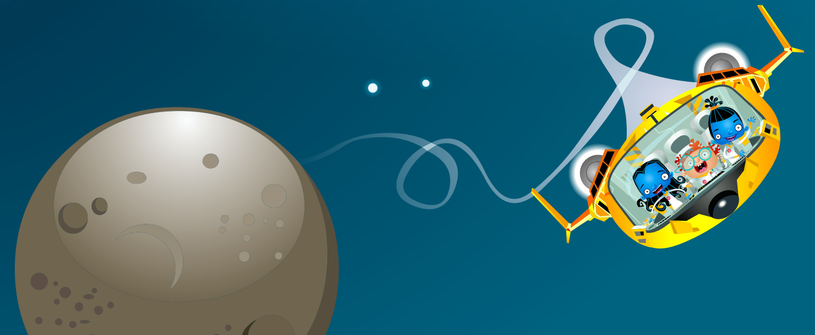
Abacus members can find a wealth of great resources to support Year 6 in 2014-15 by using our handy search facility and a specially-created matching chart which allows them to easily locate engaging and interactive resources to support their Year 6 children.

Overview of the assessment framework

On 27th March 2014, the government unveiled its future plans for assessment in Primary schools. This was followed a couple days later by details of the test frameworks for Key Stage 1 and 2.

Some of the key messages are:

- The **progress** children make from Reception to Year 6 will now be seen as just as important as their **final attainment**.
  - **Attainment:** The government has set an aspirational target of 85% of children reaching a new expected standard (similar to Level 4b in the current system) by the end of primary school.
  - **Progress:** Progress will be measured using an optional new baseline assessment in reception.
- Schools will need to achieve **either the target in progress or attainment**. They will be deemed to be below standard only if there is poor progress from Reception to the end of Primary AND fewer than 85% of children achieve the expected standard. If schools choose not to use the baseline assessment from 2016 onwards they will be assessed on the attainment floor standard alone.
- Schools will be expected to **publish information about their pupils' progress** and attainment on their website to inform parents, and as a picture of school performance.
- A **precise scaled score** (a score where 100 will represent the new expected standard for that stage) will be reported at the end of the key stages rather than a level.
- **Detailed performance descriptors** will be made available (expected in Autumn 2014) for the end of KS1 and KS2 to inform teacher assessment.



Things to consider ...

- How will we prepare our Year 4s and 5s who will be the first year groups to sit the new Year 6 SAT in 2016 and 2017?
- How will we plan to ensure that prerequisite knowledge, skills and understanding are in place before children tackle the age-related expectations for their year group?
- How and when will we publish our school's curriculum to illustrate how we are addressing the requirements outlined in the new programme of study for maths?
- How will we make use of the flexibility within a key stage?
- How will we as a school ensure that children have clear and consistent models and images that grow with them as they grow in their mathematical understanding?
- How are we preparing children for not using calculators in their SAT and consequently encouraging the development of their mental fluency and recall?
- What are the key skills we want to make sure that children have in their mathematical repertoire at the end of each year group?
- What adjustments do we need to make to ensure that children know all their times tables in Year 4?
- What do we need to do to make sure that children can understand and calculate with fractions earlier?
- How will we help children tell the time with confidence and earlier?
- What's my plan for the new topics in the curriculum that haven't been taught at Primary level before?
- How will we gain parental engagement and support for the new curriculum?
- How can we use our mobile technology to support children in their maths learning?

Download an editable and printable version of this checklist at www.pearsonprimary.co.uk/abacuscurriculum