Mathematics long term plan – Year 4

Key Targets are highlighted in red – these targets should be delivered first within each unit of work and children should not progress beyond these targets within each unit of work until they are secure. If children do not secure key targets within a unit of work, they should progress onto the next unit of work with the rest of the class but these key targets should be revisited during consolidation weeks and/or during the next academic year (e.g. before progressing onto key targets for multiplication in Year 4, unsecured key targets for multiplication from the Year 3 curriculum should be secured first when a child progresses into Year 4).

Order of delivery – targets have been placed in a suggested order of delivery; however, class teachers should use their professional judgement and discuss the order of delivery and/or the number of lessons that should be dedicated to each learning objective with the maths coordinator/SLT members, if needed.

Teaching some objectives through regular practice – some targets/learning objectives may not need their own lesson for delivery (e.g. using estimation to check answer to calculations). Teachers should use their professional judgement when deciding how many lessons should be dedicated to each learning objective. Teachers may decide that using estimation to check answers to calculations is something that will be incorporated into most of their teaching inputs throughout the year and that additional lessons could be used for the delivery of more essential targets. Class teachers to discuss which targets may not need their own lesson for delivery with maths coordinator/SLT members; however, all key targets must have their own dedicated lessons for delivery.

Children working below age-related expectations – class teachers should consolidate and secure key targets from a previous year group before progressing children working below age-related expectations onto the learning objectives attached to their current year group (e.g. before progressing onto key targets for multiplication in Year 4, unsecured key targets for multiplication from the Year 3 curriculum should be secured first when a child progresses into Year 4). If children have secured key targets from the previous year group during the unit of work, they should progress onto key targets attached to their current year group. If a unit of work is being delivered with no key targets (e.g. statistics), class teachers should review gaps in learning from previous year groups and use their professional judgement when deciding which targets that child should consolidate and secure during that unit of work (e.g. more essential gaps in learning involving statistics from previous year groups should be consolidated and secured first; less-essential targets from previous year groups may be left undelivered if it is not appropriate for that child to progress onto that target).

Re-capping and consolidating targets from previous year groups – as part of ongoing and good practice across all year groups, all teachers should re-cap learning objectives from the previous year group as part of their success criteria in one or more of their lessons (e.g. Year 6 lessons should re-cap multiplying 4-digit numbers by a 1-digit number before progressing children onto multiplying numbers with up to 4 digits by 2-digit numbers.) A one-size-fits-all approach is nearly impossible to achieve but gaps in learning for a vast majority of pupils working at age-related expectations should be addressed and secured across all year groups if every year group does this well.

Adapting weeks to suit each academic year – the number of weeks in each academic year may slightly change (e.g. autumn term may have 15 weeks instead of 14 weeks in some academic years). Class teachers should adapt the overviews accordingly depending on the length of each term and discuss and agree this with the maths coordinator or SLT members if needed.

Retention of learning – Learning has been organised into units of work (e.g. 2 weeks may be dedicated to addition at the start of the year and then addition may not be planned in to be revisited for the remainder of the year). Class teachers should ensure that calculations of the day, discussion of past paper questions every day, and starter activities throughout the year recaps prior learning throughout the year to ensure retention of previous learning.

The aim of the curriculum design is to ensure that every child, or nearly every child, progresses into the next year group with all of the key targets attached to their year group secure. This will ensure that children can access maths lessons being delivered in the following academic year.

Year 4: Autumn Term

Weeks 1 & 2 and 3 Number – place value	Weeks 4, 5, 6 & 7 Number – addition, subtraction,	Weeks 8, 9, 10, 11 & 12 Number - multiplication and division	Weeks 13 & 14 Consolidation weeks
--Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones) -Order and compare numbers beyond 1000. -Count backwards through zero to include negative numbers. -Count in multiples of 6, 7, 9. 25 and 1000. -Find 1000 more or less than a given number. -Identify, represent and estimate numbers using different representations. -Round any number to the nearest 10, 100 or 1000. -Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. -Solve number and practical problems that involve all of the above and with increasingly large positive numbers.	-Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. -Estimate and use inverse operations to check answers to a calculation. -Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.	-Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written methods. -Divide 2-digit and 3-digit numbers by a 1-digit number using formal written methods. -Recall and use multiplication and division facts for multiplication tables up to 12 x 12. -Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. -Recognise and use factor pairs and commutativity in mental calculations. -Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	Based on knowledge of their pupils and awareness of misconceptions, class teachers to decide which targets should be re-capped and consolidated during these weeks. Key Targets should be prioritised during consolidation weeks. Assessment week will also take place during week 13.

Year 4: Spring Term

Week 1 Time	Weeks 2, 3, 4 & 5 Fractions	Weeks 6, 7, 8 & 9 Decimals	Weeks 10 & 11 Measurement - money	Week 12 Consolidation week
-Convert between different units of measure (hours to minutes; minutes to seconds; years to months; weeks to days) -Read, write & convert time between analogue and digital 12 and 14 hour clocks. -Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	**-Recognise and show, using diagrams, families of common equivalent fractions.** **-Add and subtract fractions with the same denominator** -Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. -Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.	**-Compare numbers with the same number of decimal places up to two decimal places.** **-Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths** -Recognise and write decimal equivalents of any number of tenths or hundredths (e.g. 6/10 = 0.6, 32/100 = 0.32). -Recognise and write decimal equivalents to ¼, ½, ¾ -Round decimals with one decimal place to the nearest whole number.	-Estimate, compare and calculate different measures, including money in pounds and pence. -Solve simple measure and money problems involving fractions and decimals to two decimal places. **Assessment week will also take place during week 11.**	**Based on knowledge of their pupils and awareness of misconceptions, class teachers to decide which targets should be re-capped and consolidated during these weeks.** **Key Targets should be prioritised during consolidation weeks.**

Year 4: Summer Term

Week 1	Week 2 Geometry - angles	Weeks 3 & 4 Geometry - properties of shape and symmetry	Weeks 5 & 6 Geometry - position and direction	Weeks 7 & 8 Statistics	Weeks 9 & 10 Perimeter and area	Weeks 11, 12 & 13 Consolidation weeks
Measurement						
-Convert between different units of measure e.g. kilometre to metre, metres to centimetres, centimetres to millimetres	-Identify acute and obtuse angles and compare and order angles (up to two right angles) by size	-Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. -Identify lines of symmetry in 2D shapes presented in different orientations. -Complete a simple symmetric figure with respect to a specific line of symmetry.	--Describe movements between positions as translations of a given unit to the left/ right and up/ down. -Describe positions on a 2D grid as coordinates in the first quadrant. -Plot specified points and draw sides to complete a given polygon.	-Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. -Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	-Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres -Find the area of rectilinear shapes by counting squares. -Calculating the area of rectilinear shapes (simple and compound shapes)	**Based on knowledge of their pupils and awareness of misconceptions, class teachers to decide which targets should be re-capped and consolidated during these weeks.** **Key Targets should be prioritised during consolidation weeks.** **Assessment week will also take place during week 12.**