Springwell Park

Year 4 – Mathematics Planning Overview

Based on White Rose Maths version 3.0

(Key changes from version 2.0 noted in red)

Springwell Park

Autumn Term

Duration		
4 weeks	**Number – Multiplication and Division (A)** **Teachers are to ensure that the children recap multiplication facts that they should be secure on from the previous year group (3) – as advised by our consultant Sarah Martin.** *Many steps have been swapped with the other multiplication and division block in Year 4 in the previous version of the schemes. For example, multiplication by 10 and 100 has been moved to the later block where understanding of this is needed to support the formal method of short multiplication.* *Multiples of 3 are revisited before exploring the related 6 and 9 timestables, and a step is included to look at the connections between these.* *The 11 and 12 times-tables and division facts have been given a step each.*	• Multiples of 3 • Multiply and divide by 6 • 6 times-table and division facts • Multiply and divide by 9 • 9 times-table and division facts • The 3, 6 and 9 times-tables • Multiply and divide by 7 • 7 times-table and division facts • 11 times-table and division facts • 12 times-table and division facts • Multiply by 1 and 0 • Divide by 1 and itself • Multiply three numbers
1 week	**Time**	• Years, months, weeks and days • Hours, minutes and seconds

4 weeks	**Number – Place Value** *The block starts with revision of the numbers to 1,000 studied in Year 3 to make sure these are secure before moving to 4-digit numbers.* *The steps on rounding have been put together at the end of the block. This, together with the final extra step which explores rounding to different degrees of accuracy, will allow a more focused look at the concept of rounding.* *The study of negative numbers has been moved to Year 5 where it can be explored in greater depth rather than a single step.*	• Represent numbers to 1,000 • Partition numbers to 1,000 • Number line to 1,000 • Thousands • Represent numbers to 10,000 • Partition numbers to 10,000 • Flexible partitioning of numbers to 10,000 • Find 1, 10, 100, 1,000 more or less • Number line to 10,000 • Estimate on a number line to 10,000 • Compare numbers to 10,000 • Order numbers to 10,000 • Roman numerals • Round to the nearest 10 • Round to the nearest 100 • Round to the nearest 1,000 • Round to the nearest 10, 100 or 1,000
4 weeks	**Number – Addition and Subtraction** *There is a more gradual introduction to the addition and subtraction of numbers with four digits, with consideration of numbers with fewer digits revisited first in the steps.* *There is more explicit consideration of cases where there are no tens and no hundreds when subtracting to support the difficulties sometimes encountered by children when exchanging in calculations like these.*	• Add and subtract 1s, 10s, 100s and 1,000s • Add up to two 4-digit numbers - no exchange • Add two 4-digit numbers - one exchange • Add two 4-digit numbers– more than one exchange • Subtract two 4-digit numbers - no exchange • Subtract two 4-digit numbers - one exchange • Subtract two 4-digit numbers – more than one exchange • Efficient subtraction • Estimate answers • Checking strategies
1 week	**Measurement – Area** *Note that this block now precedes the multiplication and division block. At this stage children are exploring the idea of area (by counting squares) rather than the formula, so multiplication facts are not a prerequisite.*	• What is area? • Counting squares • Make shapes • Compare area

SPRING TERM

Duration		
1 week	**Time**	• Convert between analogue and digital times
3 weeks	**Number – Multiplication and Division (B)** *Multiplication by 10 and 100 has been moved to this block where understanding of this is needed to support the formal method of short multiplication. This is now new content for Year 4.* *There is an extra step on looking at factors, as this supports both multiplication and division.* *There is an extra step on looking at factors, as this supports both multiplication and division.*	• Factor pairs • Use factor pairs • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100 • Related facts – multiplication and division • Informal written methods for multiplication • Multiply a 2-digit number by a 1-digit number • Multiply a 3-digit number by a 1-digit number • Divide a 2-digit number by a 1-digit number (1) • Divide a 2-digit number by a 1-digit number (2) • Divide a 3-digit number by a 1-digit number • Correspondence problems • Efficient multiplication
2 weeks	**Measurement – Length and Perimeter** *There is now a more detailed and in-depth focus on length and perimeter.* *There are a series of new steps exploring polygons and their perimeter, in line with RTP criteria.*	• Measure in kilometres and metres • Equivalent lengths (kilometres and metres) • Perimeter on a grid • Perimeter of a rectangle • Perimeter of rectilinear shapes • Find missing lengths in rectilinear shapes • Calculate the perimeter of rectilinear shapes • Perimeter of regular polygons • Perimeter of polygons
4 weeks	**Number – Fractions** *A much slower pace with fractions by splitting concepts into smaller steps to ensure children can build their understanding better.* *In line with RTP, we have included the study of mixed numbers, which is revisited in Year 5.* *The explicit study of fractions of quantities has been moved to Year 5, although this can be explored in the context of division if desired.*	• Understand the whole • Count beyond 1 • Partition a mixed number • Number lines with mixed numbers • Compare and order mixed numbers • Understand improper fractions • Convert mixed numbers to improper fractions • Convert improper fractions to mixed numbers • Equivalent fractions on a number line • Equivalent fraction families • Add two or more fractions • Add fractions and mixed numbers • Subtract two fractions • Subtract from whole amounts • Subtract from mixed numbers
2 weeks	**Number – Decimals (A)** *There is a more gradual introduction to decimals, with tenths explored in detail before hundredths are introduced a little later than previously.*	• Tenths as fractions • Tenths as decimals • Tenths on a place value chart • Tenths on a number line • Divide a 1-digit number by 10 • Divide a 2-digit number by 10 • Hundredths as fractions • Hundredths as decimals • Hundredths on a place value chart • Divide a 1 or 2-digit number by 100

SUMMER TERM

Duration		
2 weeks	**Number – Decimals (B)** *The steps have been broken down further to allow greater exploration of tenths and hundredths separately and to support progression.*	• Make a whole with tenths • Make a whole with hundredths • Partition decimals • Flexibly partition decimals • Compare decimals • Order decimals • Round to the nearest whole number • Halves and quarters as decimals
2 weeks	**Measurement – Money** *A more detailed and in-depth focus on working with money, especially when working with both notes and coins.*	• Write money using decimals • Convert between pounds and pence • Compare amounts of money • Estimate with money • Calculate with money • Solve problems with money
1 week	**Measurement – Time** *A much slower pace for converting between 12-hour and 24-hour clock times.*	• Convert to the 24 hour clock • Convert from the 24 hour clock
2 weeks	**Geometry – Shape** *The classification of angles is now based on fractions of turn rather than their size in degrees. The is greater exploration of polygons, including understanding of the term regular.*	• Understand angles as turns • Identify angles • Compare and order angles • Triangles • Quadrilaterals • Polygons • Lines of symmetry • Complete a symmetric figure
1 week	**Statistics**	• Interpret charts • Comparison, sum and difference • Interpret line graphs • Draw line graphs
2 weeks	**Geometry – Position and Direction** *There is a more gradual introduction to the use of coordinates. Before moving on to shapes.* *Some steps have been renamed to emphasise correct mathematical language.*	• Describe position using coordinates • Plot coordinates • Draw 2-D shapes on a grid • Translate on a grid • Describe translation on a grid