

Year 4 Overview

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15
Autumn 7 and 7	Place Value 18 Steps					Addition and Subtraction 10 steps			Multiplication and Division 28 steps						
Spring 6 and 6	Measure: Length and Perimeter 9 steps		Measure: Area 3 steps	Fractions 16 steps					Decimals 18 steps						
Summer 6 and 7	Measure: Money		Measure: Time		Statistics		Geometry			Geometry Position and direction		Consolidation			

Year 4 Overview

Assessment Questions for Y4 from the DFE Guidance: <https://www.ncetm.org.uk/media/tfmdzvbg/cp-rtp-assessment-year-4.zip>

Place Value	
National Curriculum Objectives	Lesson Progression
<p><u>Count in multiples of 6, 7, 9, 25 and 1000.</u></p> <p>Find 1000 more or less than a given number.</p> <p>Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones)</p> <p>Identify, represent and estimate numbers using different representations.</p> <p><u>Order and compare numbers beyond 1000.</u></p> <p><u>Round any number to the nearest 10, 100 or 1000.</u></p> <p><u>Count backwards through zero to include negative numbers.</u></p> <p>Solve number and practical problems that involve all of the above and with increasingly large positive numbers.</p>	<ol style="list-style-type: none"> 1) Step 1 – Represent numbers to 1000 2) Step 2 – Partition numbers to 1000 (Note: Spine 1, Topic 1.18) 3) Step 3 – Number line to 1000 4) Step 4 – Thousands (Spine 1, Topic 1.22 1:1-1:5) 5) Step 5 – Represent numbers to 10,000 6) Step 6 – Partition numbers to 10,000 (Note: Spine 1, Topic 1.22 3:1-3:6) (combine into one lesson) 7) Step 7 – Flexible partitioning to 10,000 – recap in addition and subtraction 8) Spine 1, Topic 1.22 Point 2) 9) Step 8 - Find 1, 10, 100, 1,000 more or less (Note: Spine 1, Topic 1.22 1:7) 10) Step 9 - Number line to 10,000 11) Step 10 – Estimate on a number line to 10,000 (Note: Spine 1, Topic 1.18 2:1-2:7) 12) Step 11 – Compare numbers to 10,000 (Note: Spine 1, Topic 1.22 3:7) 13) Step 12 – Order numbers to 10,000 14) Step 13 – Roman Numerals 15) Step 14 – Rounding to the nearest 10 16) Step 15 – Rounding to the nearest 100 17) Step 16 - Rounding to the nearest 1000 (Note: Spine 1, Topic 1.22 4:1-4:13) 18) Step 17 - Rounding to the nearest 10, 100 or 1000
DFE Guidance (ready to progress criteria)	

Year 4 Overview

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.

3NPV-2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.

3NPV-3 Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.

3NPV-4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.

4NPV-2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.

4NPV-3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.

4NPV-4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.

Year 4 Overview

Addition and Subtraction	
National Curriculum Objectives	Lesson Progression
<p><u>Add and subtract numbers mentally, including: a three- digit number and ones; a three-digit number and tens; a three-digit number and hundreds.</u></p> <p>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.</p> <p>Estimate the answer to a calculation and use inverse operations to check answers.</p> <p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p>	<ol style="list-style-type: none"> 1) Step 1 – add and subtract 1s, 10s, 100s, and 1000s 2) Step 2 – Add up to two 4-digit numbers with no exchange 3) Step 3 – Add two 4-digit numbers with one exchange 4) Step 4 – Add two 4-digit numbers with more than one exchange (Note: Spine 1 1.20 for representations and models) 5) Step 5 – Subtract two 4-digit numbers no exchange 6) Step 6 – Subtract two 4-digit numbers with one exchange 7) Step 7 – Subtract two 4-digit numbers with more than one exchange (Note: Spine 1 1.21 for representations and models) 8) Step 8 – Efficient subtraction (Note: Spine 1 1.19 2:7-2:9 Spine 1 1.22 3:6 and 3:8 around redistribution) 9) Step 9 – Estimate answers 10) Step 10 – Check strategies
DFE Guidance (ready to progress criteria)	

Year 4 Overview

3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.

3NF – 3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example:

$$\begin{array}{l} 80 + 60 = 140 \\ 140 - 60 = 80 \end{array}$$

3AS–1 Calculate complements to 100, for example:
 $46 + ? = 100$

3AS–2 Add and subtract up to three-digit numbers using columnar methods.

3AS–3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.

4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100), for example:

$$\begin{array}{l} 8 + 6 = 14 \text{ and } 14 - 6 = 8 \\ \text{so} \\ 800 + 600 = 1,400 \\ 1,400 - 600 = 800 \end{array}$$

Year 4 Overview

Multiplication and Division

National Curriculum Objectives

Lesson Progression

Year 4 Overview

Count from 0 in multiples of 4, 8, 50 and 100

Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.

Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.

Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

- 1) [Spine 2 2.8 TP1](#) (Note: **step 1** WR Multiples of 3)
 - 2) [Spine 2 2.8 TP 2 and 3](#) (Note: **step 2** Multiply and divide by 6)
 - 3) **Step 3** 6 times-table and division facts
 - 4) [Spine 2 2.8 TP 4 and 5](#) (Note: **step 4** Multiply and divide by 9)
 - 5) **Step 5** 9 times-table and division facts
 - 6) **Step 6** The 3, 6 and 9 times-table
 - 7) [Spine 2 2.9 TP 1 and 2](#) (Note: **step 7** Multiply and divide by 7)
 - 8) **Step 8** 7 times-table and division facts
 - 9) [Spine 2 2.11 TP 1](#) (Note: **step 9** times-table and division facts)
 - 10) [Step 2 2.11 TP 2 and 3](#) (Note: **step 10** 12 times-table and division facts)
 - 11) **Step 11** Multiply by 1 and 0 (Note: [Spine 2 2.6 TP5](#))
 - 12) **Step 12** Divide a number by 1 and itself
 - 13) **Step 13** Multiply three numbers
- Multiplication and Division B
- 14) **Step 1** - Factor pairs
 - 15) **Step 2** - Use factor pairs
 - 16) [Spine 2 Topic 2.13 TP1](#) (Note: **Step 3** - Multiply by 10)
 - 17) [Spine 2 Topic 2.13 TP 3](#) (Note: **Step 4** - Multiply by 100)
 - 18) [Spine 2 Topic 2.13 TP 2](#) (Note: **Step 5** - Divide by 10)
 - 19) [Spine 2 Topic 2.13 TP 4](#) (Note **Step 6** - Divide by 100)
 - 20) **Step 7** - Related facts – multiplication and division
 - 21) [Spine 2 Topic 2.14 TP1](#) (Note: **Step 8** - Informal written methods for multiplication)
 - 22) [Spine 2 Topic 2.14 TP2](#) (Note: **Step 9** - Multiply a 2-digit number by a 1-digit number)
 - 23) [Spine 2 Topic 2.14 TP3and4](#) (Note: **Step 10** - Multiply a 3-digit number by a 1-digit number)
 - 24) [Spine 2 Topic 2.15 TP1](#) (Note: **Step 11** - Divide a 2-digit by a 1-digit number (1))
 - 25) [Spine 2 Topic 2.15 TP2](#) (Note: **Step 12** - Divide a 2-digit by a 1-digit number)
 - 26) [Spine 2 Topic 2.15 TP3](#) (Note: **Step 13** - Divide a 3-digit number by a 1-digit number)
 - 27) **Step 14** - Correspondence problems
 - 28) **Step 15** - Efficient multiplication

DFE Guidance (ready to progress criteria)

Year 4 Overview

3NPV-1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.

3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.

3NF - Use known division facts to solve division problems. Calculate small differences, for example:

$$74 - 72 = 2$$

3NF - 3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example:

$$30 \times 4 = 120$$
$$120 \div 4 = 30$$

3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotative and partitive division.

Multiply two-digit numbers by 10, and divide three-digit multiples of 10 by 10.

Understand the inverse relationship between multiplication and division. Write and use multiplication table facts with the factors presented in either order.

4NPV-1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.

4NF-1 Recall multiplication and division facts up to , 12 x 12 and recognise products in multiplication tables as multiples of the corresponding number.

4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, for example: and interpret remainders appropriately according to the context.

$$74 \div 9 = 8 \text{ r } 2$$

4NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100), for example:

$$3 \times 4 = 12 \text{ and } 12 \div 4 = 3$$

so

$$300 \times 4 = 1,200$$
$$1,200 \div 4 = 300$$

4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.

4MD-2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.

4MD-3 Understand and apply the distributive property of multiplication.

Year 4 Overview

Length and Perimeter

	Length and Perimeter	
	National Curriculum Objectives	Lesson Progression
	<p>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</p> <p>Convert between different units of measure (for examples, kilometre to metre).</p>	<ol style="list-style-type: none">1) Step 1 - Measure in kilometres and metres2) Step 2 - Equivalent lengths (Kilometres and metres)3) Spine 2 Topic 2.16 TP 1 and 2 (Note: Step 3 - Perimeter on a grid)4) Step 4 - Perimeter of a rectangle5) Step 5 - Perimeter of rectilinear shapes6) Step 6 - Find missing lengths in rectilinear shapes (Note: Spine 2 Topic 2.16 TP3)7) Step 7 - Calculate the perimeter of rectilinear shapes8) Step 8 - Perimeter of regular polygons9) Step 9 - Perimeter of polygons

Year 4 Overview

Area	
National Curriculum Objectives	Lesson Progression
Find the area of rectilinear shapes by counting squares.	<ol style="list-style-type: none">1) Spine 2 Topic 2.16 TP 42) Spine 2 Topic 2.16 TP 53) Spine 2 Topic 2.16 TP 6 <p>(Note: Step 1-4 of White Rose)</p>

Year 4 Overview

Fractions	
National Curriculum Objectives	Lesson Progression
<p><u>Recognise and show, using diagrams, families of common equivalent fractions.</u></p> <p><u>Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</u></p> <p>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.</p> <p>Add and subtract fractions with the same denominator.</p>	<p>Revisit – Spine 3 Topic 3.1, 3.2, 3.3 where needed. 3.2 contains appropriate language when writing a fraction.</p> <ol style="list-style-type: none"> 1) Step 1 – Understand the whole (Note: Spine 3 Topic 3.4) 2) Step 2 – Count beyond 1 3) Spine 3 Topic 3.5 TP 1 4) Spine 3 Topic 3.5 TP 2 (Note: Step 4 – Number lines with mixed numbers) 5) Spine 3 Topic 3.5 TP 3 (Note: Step 5 – Compare and order mixed numbers) 6) Spine 3 Topic 3.5 TP 4 (Note: Step 3 – Partition a mixed number) 7) Spine 3 Topic 3.5 TP 5 (Note: Step 6 – Understand improper fractions) 8) Step 7 – Convert mixed numbers to improper fractions 9) Step 8 – Convert improper fractions to mixed numbers 10) Step 9 – Equivalent fractions on a number line (Note: Spine 3 Topic 3.7) 11) Step 10 – Equivalent fraction families 12) Step 11 – Add two or more fractions 13) Step 12 – Add fractions and mixed numbers 14) Step 13 – Subtract two fractions 15) Step 14 – Subtract from whole amounts 16) Step 15 – Subtract from mixed numbers
	DFE Guidance (ready to progress criteria)

Year 4 Overview

3 Reason about the location of fractions less than 1 in the linear number system.

3 Identify unit and non- unit fractions.

3 Add and subtract fractions with the same denominator, within 1 whole.

4F-1 Reason about the location of mixed numbers in the linear number system.

4F-2 Convert mixed numbers to improper fractions and vice versa.

4F-3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers, for example:

$$\begin{array}{l} \frac{7}{5} + \frac{4}{5} = \frac{11}{5} \\ 3\frac{7}{8} - \frac{2}{8} = 3\frac{5}{8} \\ 7\frac{2}{5} + \frac{4}{5} = 8\frac{1}{5} \\ 8\frac{1}{5} - \frac{4}{5} = 7\frac{2}{5} \end{array}$$

Year 4 Overview

Decimals	
National Curriculum Objectives	Lesson Progression
<p>Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</p> <p>Recognise and write decimal equivalents of any number of tenths or hundredths</p> <p>Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$</p> <p>Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</p> <p>Round decimals with one decimal place to the nearest whole number</p> <p>Compare numbers with the same number of decimal places up to two decimal places</p> <p>Solve simple measure and money problems involving fractions and decimals to two decimal places.</p>	<p>Part A</p> <ol style="list-style-type: none"> 1) Step 1 - Tenths as fractions (Note: Spine 1 Topic 1.23 TP 1) 2) Step 2 - Tenths as decimals (Note: Spine 1 Topic 1.23 TP 2) 3) Step 3 - Tenths on a place value chart (Note: Spine 1 Topic 1.23 TP 3) 4) Step 4 - Tenths on a number line 5) Step 5 - Divide a 1-digit number by 10 (Note: Spine 2 Topic 2.13) 6) Step 6 - Divide a 2-digit number by 10 7) Step 7 - Hundredths as fractions 8) Step 8 - Hundredths as decimals (Note: Spine 1 Topic 1.24 TP2) 9) Step 9 - Hundredths on a place value chart 10) Step 10 - Divide a 1-or 2-digit number by 100 <p>Part B</p> <ol style="list-style-type: none"> 1) Step 1 - Make a whole with tenths (Note: to be used throughout Spine 1 Topic 1.24 TP 2) 2) Step 2 - Make a whole with hundredths 3) Step 3 - Partition decimals 4) Step 4 - Flexibly partition decimals 5) Step 5 - Compare decimals 6) Step 6 - Order decimals 7) Step 7 - Round to the nearest whole number (Note: Spine 1 Topic 1.23 TP7) 8) Step 8 - Halves and quarters as decimals

Year 4 Overview

Money	
National Curriculum Objectives	Lesson Progression
<p>Add and subtract amounts of money to give change, using both £ and p in practical contexts.</p>	<ol style="list-style-type: none"> 1) Spine 1 Topic 1.25 TP 1 (Note: Step 1 Write money using decimals) 2) Step 2 - Convert between pounds and pence 3) Step 3 - Compare amounts of money 4) Step 4 - Estimate with money 5) Step 5 - Calculate with money (Note: Spine 1 Topic 1.25 TP2) 6) Spine 1 Topic 1.25 TP3 7) Spine 1 Topic 1.25 TP4 8) Step 6 - Solve problems with money (Note: Spine 1 Topic 1.25 TP5)
Time	
National Curriculum Objectives	Lesson Progression
<p>Convert between different units of measure eg hour to minute.</p> <p>Read, write & convert time between analogue and digital 12 and 14 hour clocks.</p> <p>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days</p>	<ol style="list-style-type: none"> 1) Step 1 - Years, months, weeks and days 2) Step 2 - Hours, minutes and seconds 3) Step 3 - Convert between analogue and digital times 4) Step 4 - Convert to the 24 hour clock 5) Step 5 - Convert from the 24 hour clock

Year 4 Overview

Statistic	
National Curriculum Objectives	Lesson Progression
<p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</p> <p><u>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</u></p>	<ol style="list-style-type: none">1) Step 1 - Interpret charts2) Step 2 - Comparison, sum and difference3) Step 3 - Interpret line graphs4) Step 4 - Draw line graphs

Year 4 Overview

Geometry

	National Curriculum Objectives	Lesson Progression
	Find the area of rectilinear shapes by counting squares.	<p>Shape</p> <ol style="list-style-type: none">1) Step 1 - Understand angles as turns2) Step 2 - Identify angles3) Step 3 - Compare and order angles4) Step 4 - Triangles5) Step 5 - Quadrilaterals6) Step 6 - Polygons7) Step 7 - Lines of symmetry8) Step 8 - Complete a symmetric figure <p>Position and Direction</p> <ol style="list-style-type: none">1) Step 1 - Describe position using coordinates2) Step 2 - Plot coordinates3) Step 3 - Draw 2-D shapes on a grid4) Step 4 - Translate on a grid5) Step 5 - Describe translation on a grid <p>DFE Guidance (ready to progress criteria)</p>

Year 4 Overview

		<p>3 - Draw polygons by joining marked points.</p>	<p>4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.</p> <p>4G–2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.</p> <p>4G–3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.</p>
--	--	--	---