

Year 3/4 Overview

Y3 /4	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	Place Value (21 Sessions)					Addition and Subtraction (25 Sessions)						Multiplication and Division Part A (16 Sessions) Assessment Week (Week)				
Spring	Multiplication and Division Part B (12 Sessions)			Measure: Length and Perimeter			Fractions				Measure: Mass and Capacity Year 4 Decimal	Assessment				
Summer	Fractions		Measure: Money		Measure Time			Geometry		Assessment	Transition Investigation and Consolidation					

NB – Year 4 need to have exposure to decimals at some point. This will be split input as Decimals are introduced in Year 4 .

Year 3/4 Overview

Place Value			
National Curriculum Objectives	Lesson Progression		
<p><u>Year 3</u> Identify, represent and estimate numbers using different representations.</p> <p><u>Find 10 or 100 more or less than a given number;</u></p> <p><u>Recognise the place value of each digit in a three digit number (hundreds, tens, ones).</u></p> <p>Compare and order numbers up to 1000.</p> <p>Read and write numbers up to 1000 in numerals and in words</p> <p>Solve number problems and practical problems involving these ideas.</p> <p><u>Count from 0 in multiples of 4, 8, 50 and 100</u></p> <p><u>Year 4</u> <u>Count in multiples of 6, 7, 9, 25 and 1000.</u></p> <p><u>Find 1000 more or less than a given number.</u></p> <p><u>Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones)</u></p>	Lesson	Year 3	Year 4
	1	Spine 1, Topic 1.17 1:1-1:4	
	2	Spine 1, Topic 1.17 1:5-1.7	
	3	Step 1 – represent numbers to 100	Step 1 – Represent numbers to 1000
	4	Step 2 – partition numbers to 100	Step 2 – Partition numbers to 1000 (Note: Spine 1, Topic 1.18)
	5	Step 3 - Number to 100	Step 3 – Number line to 1000
	6	Step 5 – Represent to 1000 (Note Spine 1, Topic 1.18 -1:1-1:3)	Step 5 – Represent numbers to 10,000
	7	Step 6 - Partition numbers to 1,000 (Note Spine 1, Topic 1.18 -1:4-1:3)	Step 6 – Partition numbers to 10,000
	8	Step 7 – Flexible teaching of 1,000 (Note Spine 1, Topic 1.18 -1:5-1:7)	Step 7 – Flexible partitioning to 10,000
	9	Spine 1, Topic 1.18 – 1:8-1:12	Spine 1, Topic 1.22 Point 2)
	10	Step 9 – Find 1, 10 or 100 more or less	Step 8 - Find 1, 10, 100, 1,000 more or less (Note: Spine 1, Topic 1.22 1:7)
	11	Step 10 – Number line to 1,000	Step 9 - Number line to 10,000
	12	Spine 1, Topic 1.18 – 2:1 -2:3	
13	Step 11 – Estimate on a number line to 1,000	Step 10 – Estimate on a number line to 10,	

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<p><u>Identify, represent and estimate numbers using different representations.</u></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><u>Solve number and practical problems that involve all of the above and with increasingly large positive numbers.</u></p>	14	Spine 1, Topic 1.18 - 2:4-2:8	
	15	Step 12 - Compare numbers to 1,000	Step 11 - Compare numbers to 10,000
	16	Spine 1, Topic 1.18 - 3:1 - 3:3	
	17	Step 13 - Order Numbers to 1000 (Note Spine 1, Topic 1.18 3:4)	Step 12 - Order numbers to 10,000
	18	Consolidation of misconceptions	Step 14 - Rounding to the nearest 10
	19		Step 15 - Rounding to the nearest 100
	20		Step 16 - Rounding to the nearest 1000
	21		Step 17 - Rounding to the nearest 10, 100 or 1000

DFE Materials

<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
<p>2NPV – 1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.</p> <p>2NPV–2 Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.</p> <p>2NPV - Count in multiples of 2, 5 and 10.</p>	<p>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.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p>

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Addition and Subtraction			
National Curriculum Objectives	Lesson Progression		
<p>Year 3 <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> <p>Year 4 <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>		Year 3	
	1	Step 1 Apply number bonds within 10	
	2	Step 2 Add and subtract 1's	
	3	Step 3 Add and subtract 10's	Step 1 – add and subtract 1s, 10s, 100s, and 1000s
	4	Step 4 Add and subtract 100'S (Note: Spine 1, Topic 1.18 – 5:1-5:2)	
	5	Step 5 Spot the pattern (Note: Spine 1, Topic 1.18 – 5:3)	
	6	Spine 1, Topic 1.18 5:4	
	7	Step 6 Add 1's across 10 (Note: Spine 1, Topic 1.18 5:5-5:10)	
	8	Step 7 Add 10's across 100	
	9	Step 8 Subtract 1's across 10 (Note: Spine 1, Topic 1.18 5:11-5:12)	
	10	Step 9 Subtract 10's across 100	
	11	Step 10 Making connections (Note: Spine 1, Topic 1.17 3:9)	
	12	Spine 1, Topic 1.19 TP1	
	13	Spine 1, Topic 1.20 1:1-2:1	
	14	Spine 1, Topic 1.20 2:2 -3:2	
	15	Spine 1 1.20 4:1-4:6 (Note step 11, 13 and 14)	Step 2 – Add up to two 4-digit numbers with no exchange
	16	Spine 1 1.20 TP 5	Step 3 – Add two 4-digit numbers with one exchange
17	Spine 1 1.21 TP1	Step 4 – Add two 4-digit numbers with more than one exchange (Note: Spine 1 1.20 for representations and models)	

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<p><u>Estimate the answer to a calculation and use inverse operations to check answers.</u></p> <p><u>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</u></p>	18	Spine 1 1.21 2:1-2:3	Step 5 – Subtract two 4-digit numbers no exchange
	19	Spine 1 1.21 2:4-2:10 (Note step 12, 15 and 16)	Step 6 – Subtract two 4-digit numbers with one exchange
	20	Step 17 Add two digit and three-digit numbers	Step 7 – Subtract two 4-digit numbers with more than one exchange (Note: Spine 1 1.21 for representations and models)
	21	Step 18 Subtract a two-digit number from a three-digit number	Step 8 – Efficient subtraction (Note: Spine 1 1.19 2:7-2:9 Spine 1 1.22 3:6 and 3:8 around redistribution)
	22	Step 19 Complements to 100	Step 9 – Estimate answers
	23	Step 20 Estimate answers	Step 10 – Check strategies
	24	Step 21 Inverse operations	Step 2 – Add up to two 4-digit numbers with no exchange
	25	Step 22 Make decisions	Step 3 – Add two 4-digit numbers with one exchange

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<u>DFE Materials</u>		
<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
<p>2NF - Add and subtract across 10 2NF - Automatically recall addition and subtraction facts within 10, and across 10. Unitise in tens: understand that 10 can be thought of as a single unit of 1 ten. 2AS - Automatically recall number bonds to 9 and to 10. Know that 10 ones are equivalent to 1 ten, and 10 tens are equivalent to 1 hundred.</p> <p>2AS - Automatically recall addition and subtraction facts within 10 and across 10. Recognise the place value of each digit in two- and three-digit numbers. Know that 10 ones are equivalent to 1 ten, and 10 tens are equivalent to 1 hundred.</p> <p>2AS - Have experience with the commutative property of addition, for example, have recognised that $3 + 2$ and $2 + 3$ have the same sum. Be able to write an equation in different ways, for example, $2 + 3 = 5$ and $5 = 2 + 3$ Write equations to represent addition and subtraction contexts.</p>	<p>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: 3AS–1 Calculate $80 + 60 = 140$ for example: $46 + ? = 100$ 3AS–2 Add and $140 - 60 = 80$ git 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.</p>	<p>4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100), for example: $8 + 6 = 14$ and $14 - 6 = 8$ so $800 + 600 = 1,400$ $1,400 - 600 = 800$</p>

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Multiplication and Division (Part A)

National Curriculum Objectives	Lesson Progression		
<p>Year 3 <u>Count from 0 in multiples of 4, 8, 50 and 100</u></p> <p><u>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</u></p> <p><u>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.</u></p> <p>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.</p> <p>Year 4 <u>Count from 0 in multiples of 4, 8, 50 and 100</u></p> <p><u>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</u></p> <p><u>Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers</u></p>	Lesson	Year 3	Year 4
	1	Step 1 - Multiplication – equal groups (Note: Spine 2 2.6 TP1)	Step 11 Multiply by 1 and 0 (Note: Spine 2 2.6 TP5)
	2	Step 2 - Use arrays	Step 12 Divide a number by 1 and itself
	3	Spine 2 2.3 – (Note: Step 3 Multiples of 2)	
	4	Spine 2 2.4 – (Note: Step 4 Multiples of 5 and 10)	
	5	Spine 2 2.6 TP2	
	6	Spine 2 2.6 TP3 (Note: Step 5 Sharing and grouping)	
	7	Spine 2 2.8 TP1 (Note: Step 6 Multiply by 3)	Spine 2 2.8 TP1 (Note: step 1 WR Multiples of 3)
	8	Step 7 Divide by 3	Spine 2 2.8 TP 2 and 3 (Note: step 2 Multiply and divide by 6)
	9	Step 8 The 3 times-table	Step 3 6 times-table and division facts
	10	Spine 2 2.7 TP 1 and 2 (Note: Step 9 Multiply by 4)	Spine 2 2.8 TP 4 and 5 (Note: step 4 Multiply and divide by 9)
	11	Step 10 Divide by 4	Step 5 9 times-table and division facts
	12	Step 11 The 4 times-table	Step 6 The 3, 6 and 9 times-table
	13	Spine 2 2.7 TP 3 and 4 (Note: Step 12 Multiply by 8)	Spine 2 2.9 TP 1 and 2 (Note: step 7 Multiply and divide by 7)
	14	Step 13 Divide by 8	Step 8 7 times-table and division facts
15	Step 14 The 8 times-table	Spine 2 2.11 TP 1 (Note: step 9 times-table and division facts)	

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	<p><u>times one-digit numbers, using mental and progressing to formal written methods.</u></p> <p>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.</p>	16	<p>Step 15 The 2,4 and 8 times table</p>	<p>Step 2 2.11 TP 2 and 3 (Note: step 10 12 times-table and division facts)</p>
	<u>DFE Materials</u>	<u>DFE Materials</u>	<u>DFE Materials</u>	
	<u>Year 2</u>	<u>Year 2</u>	<u>Year 2</u>	

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2NPV - Know that 10 ones are equivalent to 1 ten, and that 40 (for example) can be composed from 40 ones or 4 tens. Know how many tens there are in multiples of 10 up to 100.

2NF - Calculate products within the 2, 5 and 10 multiplication tables.

2NF - Automatically recall addition and subtraction facts within 10, and across 10. Unitise in tens: understand that 10 can be thought of as a single unit of 1 ten.

2 - Recognise repeated addition contexts and represent them with multiplication equations. Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).

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 - 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 quotitive and partitive division.

Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to scaling a number by 10 or 100.

Recall multiplication and division facts up to 12×12 . Manipulate multiplication and division equations. Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, for example:

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

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

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

Recall multiplication and division facts up to , 12×12 and recognise products in multiplication tables as multiples of the corresponding number. Recognise multiples of 10, 100 and 1,000. Apply place-value knowledge to known additive and multiplicative number facts. Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients).

Recall multiplication facts up to 12×12 . Manipulate multiplication and division equations.

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Recall multiplication and division facts up to 12 x 12.
Manipulate multiplication and division equations.
Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, for example:

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

and interpret remainders appropriately according to the context.