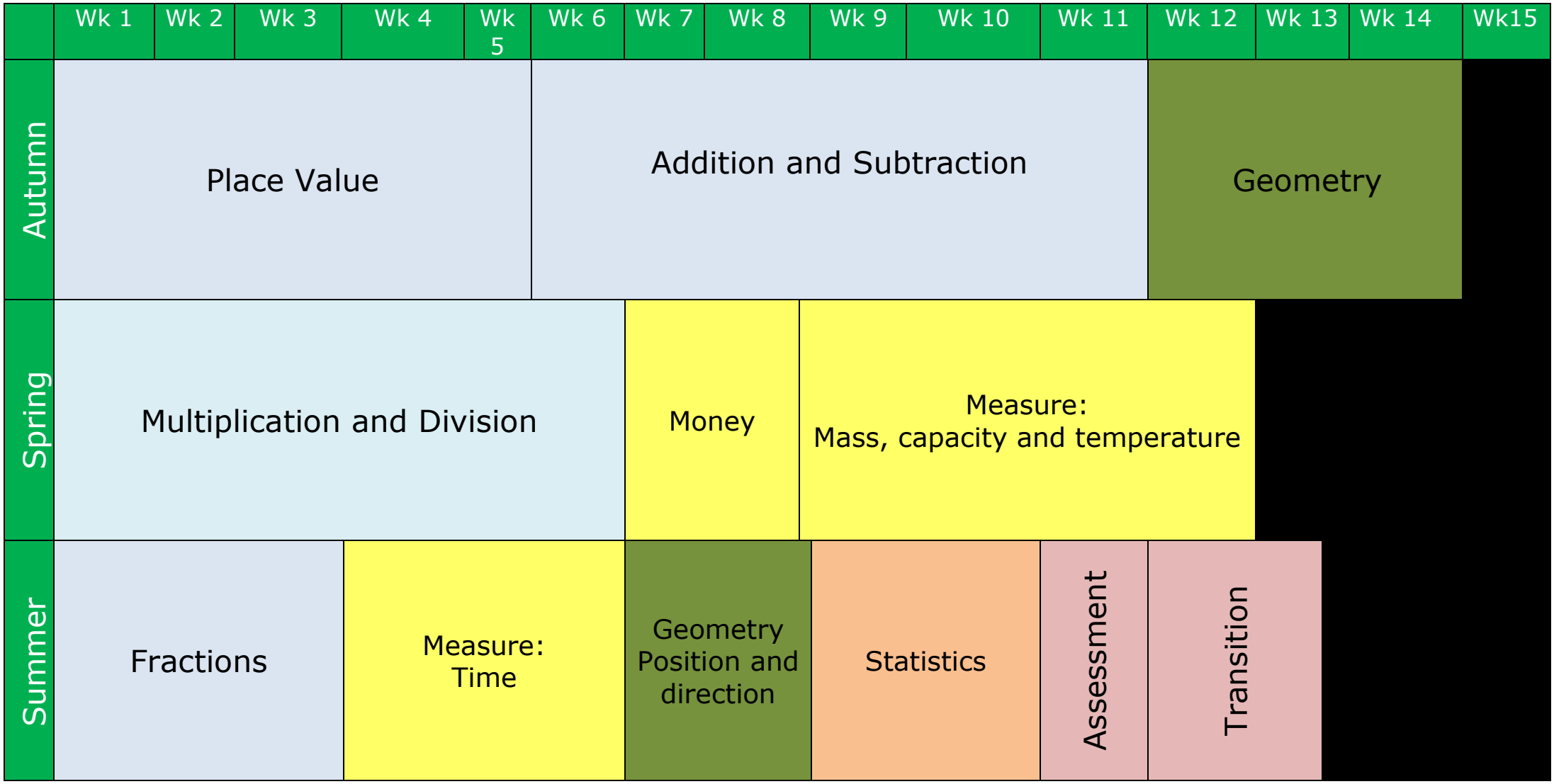
Year 2 Overview



Year 2 Overview

Assessment Questions for Y2 from the DFE Guidance: https://www.ncetm.org.uk/media/jtbdcpsc/cp-rtp-assessment-year-2.zip

Place Value

National Curriculum Objectives	Lesson Progression
Read and write numbers to at least 100 in numerals and words. Recognise the place value of each digit in a two digit number (ten, ones) Identify, represent and estimate numbers to 100 using different representations including the number line. Compare and order numbers from 0 up to 100; use <, > and = signs. Use place value and number facts to solve problems. Count in steps of 2, 3 and 5 from 0 and in tens from any number forward/backwards.	1) Spine 1, Topic 1.3 and 1.4 – Composition of number 1-10 2) Step 1 – Numbers to 20 3) Step 2 – Count objects to 100 by making 10s (Note: Spine 1, Topic 1.9, 2:1-2:2) 4) Step 3 – Recognise tens and ones 5) Step 4 – Use a place value chart (Note: Spine 1, Topic 1.9, 2:3) 6) Spine 1, Topic 1.9, 2:5 – 2.7 7) Step 5 - Partition numbers to 100 (Note: Spine 1, Topic 1.9, 2:8-2:13) 8) Step 6 – Write numbers to 100 in words 9) Step 7 – Flexibly partitioning numbers to 100 10) Step 8 - Write numbers to 100 in expanded form 11) Step 9 - 10s on the number line to 100 12) Step 10 – 10s and 1s on a number line to 100 (Note: Spine 1, Topic 1.9, 3:1-3:3) 13) Step 11 – Estimate numbers on a number line (Note: Spine 1, Topic 1.9, 3:4-3:5) 14) Spine 1, Topic 1.9, 3:6-3.7 15) Step 12 – Compare objects 16) Spine 1, Topic 1.9, 4:1-4:3 17) Step 13 – Compare numbers (Note Spine 1, Topic 1.9, 4:5) 18) Step 14 – Order objects and numbers 19) Spine 2, Topic 2.1 (multiplication) 20) Step 15 – Count 2s, 5s and 10s 21) Step 16 – Count in 3s
	DFE Guidance (ready to progress criteria)

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		Know that 10 ones are equivalent to 1 ten. Know that multiples of 10 are made up from a number of tens, for example, 50 is 5 tens. Place the numbers 1 to 9 on a marked, but unlabelled, 0 to 10 number line. Estimate the position of the numbers 1 to 9 on an unmarked 0 to 10 number line. Count forwards and backwards to and from 100.	2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and nonstandard partitioning 2NPV–2 Reason about the location of any twodigit number in the linear number system, including identifying the previous and next multiple of 10.

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Addition and Subtraction

National Curriculum Objectives	Lesson Progression
Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers. Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	1) Step 1 – Bonds to 10 2) Step 2 – Fact families – addition and subtraction within 20 3) Step 3 – Related facts 4) Step 4 – Bonds to 100 (tens) – (Note: Spine 1.8) 5) Spine 1.13 1:1-1:9 (Note: Step 5 – Add and Subtract 1s) 6) Spine 1.11 1:1-1:3 (Note: Step 7 – Add three 1-digit numbers) 7) Spine 1.11 2:1-2:5 Add three 1-digit numbers 8) Spine 1.11 3:1 – 4:10 Add three 1-digit numbers 9) Spine 1.11 5:1-5:7 Add by using the make 10 strategy (Note: Step 6 add by making 10) 10) Step 8 – Add to the next 10 (Note: Spine 1.13 3:1-3:6) 11) Step 9 – Add across a 10 (Note: Spine 1.13 4:1-4:4) 12) Step 10 – Subtract across a 10 (Note: Spine 1.13 4:5-4:9) 13) Step 11 – Subtract from a 10 14) Step 12 – Subtract a 1-digit number from a 2 digit number (across a 10) 15) Step 13 - 10 more, 10 less (Note: Spine 1.14 1:1-1:5) 16) Step 14 – Add and subtract 10s 17) Step 15 – Add two 2-digit number (not across a 10) (Note Spine 1.15 2:1-2:8) 18) Step 16 – Add two 2-digit numbers (across a 10) 19) Step 17 – Subtract two 2-digit numbers (not across a 10) (Note Spine 1.16) 20) Step 18 – Subtract two 2-digit numbers (across a 10) 21) Step 19 – Mixed addition and subtraction 22) Step 20 – Compare numbers sentences 23) Step 21 – Missing number problems DFE Guidance (ready to progress criteria)

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		Develop fluency in addition and subtraction facts within 10. Learn and use number bonds to 10, for example: $8+?=10$ Partition numbers within 10, for example: $5=2+3$ Solve missing addend problems within 10, for example: $4+\square=10$ Add and subtract within 10, for example: $6+3=9$ $6-2=4$ Know that a multiple of 10 is made up from a number of tens, for example, 50 is 5 tens. Add and subtract within 10. Know that a multiple of 10 is made up from a number of tens, for example, 50 is 5 tens.	2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice. 2AS–1 Add and subtract across 10, for example: $8+5=13$ $13-5=8$ 2AS–2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?". 2AS–3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number. 2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.

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		Develop fluency in addition and subtraction facts within 10. Learn and use number bonds to 10, for example: $8 + ? = 10$ Partition numbers within 10, for example: $5 = 2 + 3$ Solve missing addend problems within 10, for example: $4 + \square = 10$ Add and subtract within 10, for example: $6 + 3 = 9$ $6 - 2 = 4$ Know that a multiple of 10 is made up from a number of tens, for example, 50 is 5 tens. Add and subtract within 10. Know that a multiple of 10 is made up from a number of tens, for example, 50 is 5 tens.	2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice. 2AS–1 Add and subtract across 10, for example: $8 + 5 = 13$ $13 - 5 = 8$ 2AS–2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?". 2AS–3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number. 2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.

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Geometry

National Curriculum Objectives

Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line.

Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces.

Identify 2D shapes on the surface of 3D shapes, [for example, a circle on a cylinder and a triangle on a pyramid].

Compare and sort common 2D and 3D shapes and everyday objects.

Lesson Progression

1) Step 1 - Recognise and make 2D and 3D shapes
2) Step 2 - Count sides on 2D shapes
3) Step 3 – Count vertices on 2D shapes
4) Step 4 - Draw 2D shapes
5) Step 5 - Lines of symmetry on shapes
6) Step 6 – Use lines of symmetry to complete shapes
7) Step 7 - Sort 2D shapes
8) Step 8 – Count faces on 3D shapes
9) Step 9 – Count edges on 3D shapes
10) Step 10 – Count vertices on 3D shapes
11) Step 11 – Sort 3D shapes
12) Step 12 – Make patterns with 2D and 3D shapes

DFE Guidance (ready to progress criteria)

Recognise common 2D and 3D shapes presented in different orientations.	2G–1 Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.

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	Money	
	National Curriculum Objectives	Lesson Progression
	Recognise and use symbols of pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.	Note and revisit from Y1 Spine 2 2.1 1) Step 1 - Count money – pence 2) Step 2 - Count money – pounds (notes and coins) 3) Step 3 - Count money – pounds and pence 4) Step 4 – Choose notes and coins 5) Step 5 - Make the same amount 6) Step 6 - Compare amounts of money 7) Step 7 – Calculate with money 8) Step 8 – Make a pound 9) Step 9 - Find change 10) Step 10 Two-step problems

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Multiplication and Division

National Curriculum Objectives	Lesson Progression
Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) sign. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. To recognise the use of the inverse relationship between multiplication and division in calculations.	1) Spine 2 2.2 TP 1 (Note: Step 1 - Recognise equal groups) 2) Step 2 - Make equal groups (Note: Spine 2 2.2 TP 2) 3) Spine 2 2.2 TP 3 (Note: Step 3 - Add equal groups) 4) Spine 2 2.2 TP 4 (Note: Step 4 – Introduce the multiplication symbol) 5) Step 5 – Multiplication sentences (Note: Spine 2 2.2 TP 5) 6) Step 6 – Use arrays (Note: Spine 2 2.5 TP 1) 7) Step 7 – Make equal groups – grouping 8) Step 8 – Make equal groups – sharing 9) Step 9 – The 2 times table (Note: Spine 2 2.3 TP 1 and 2) 10) Step 10 – Divide by 2 11) Step 11 – Doubling and halving (Note: Spine 2 2.5 2 and 3) 12) Step 12 – Odd and even numbers 13) Spine 2 2.4 TP 1 (Note: Step 13 - The 10 times-table) 14) Step 14 – Divide by 10 15) Spine 2 2.4 TP 2 (Note: Step 15 – The 5 times-table) 16) Step 16 – Divide by 5 17) Step 17 – The 5 and 10 times-table (Note: Spine 2 2.5 TP 4) and (Note: Spine 2 2.4 TP 3) 18) Spine 2 2.4 TP 4 (0 times table if time allows)
	DFE Guidance (ready to progress criteria)

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		Count in multiples of 2, 5 and 10. Count in multiples of 2, 5 and 10 to find how many groups of 2, 5 or 10 there are in a particular quantity, set in everyday contexts.	2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. 2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).

Fractions

National Curriculum Objectives	Lesson Progression
To recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$. To write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of two quarters and one half.	(Note: Teaching Fractions in KS1 1) Step 1 - Introduction to parts and whole 2) Step 2 – Equal and unequal parts 3) Step 3 – Recognise a half 4) Step 4 – Find a half 5) Step 5 – Recognise a quarter 6) Step 6 – Find a quarter 7) Step 7 – Recognise a third 8) Step 8 – Find a third 9) Step 9 – Find the whole 10) Step 10 – Unit fractions 11) Step 11 – Non-unit fractions 12) Step 12 – Recognise the equivalence of a half and two quarters 13) Step 13 – Recognise three-quarters

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Measure – length, height, mass, capacity and temperature	
National Curriculum Objectives	Lesson Progression
Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) and mass (kg/g) to the nearest appropriate unit, using rulers and scales. Compare and order length and mass and record the results using >, < and =. Choose and use appropriate standard units to estimate and measure capacity (litres/ml) and temperature (˚C) to the nearest appropriate unit, using thermometers and measuring vessels. Compare and order volume/capacity and record the results using >, < and =	(Note: Spine 1 1.1 TP 1) Length and Height 1) Step 1 - Measure length (cm) 2) Step 2 - Measure length (m) 3) Step 3 - Compare lengths and heights 4) Step 4 - Order lengths and heights 5) Step 5 - Four operations with lengths and heights Mass, capacity and temperature 6) Step 1 - Compare mass 7) Step 2 - Measure in grams 8) Step 3 - Measure in kilograms 9) Step 4 – Four operations with mass 10) Step 5 – Compare volume and capacity 11) Step 6 – Measure in millilitres 12) Step 7 – Measure in litres 13) Step 8 - Four operations with volume and capacity 14) Step 9 - Temperature

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Statistics

National Curriculum Objectives	Lesson Progression
Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Ask answer simple questions by counting the number of objects in each category and sorting the categories by quantity. Ask and answer questions about totalling and comparing categorical data	1) Step 1 - Make tally charts 2) Step 2 – Tables 3) Step 3 – Block diagrams 4) Step 4 – Draw pictograms (1-1) 5) Step 5 – Interpret pictograms (1-1) 6) Step 6 – Draw pictograms (2,5,10) 7) Step 7 – Interpret pictograms (2,5,10)

Geometry – position and direction

National Curriculum Objectives	Lesson Progression
Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) Order and arrange combinations of mathematical objects in patterns and sequences.	1) Step 1 – Language of position 2) Step 2 - Describe movement 3) Step 3 – Describe turns 4) Step 4 - Describe movements and turns 5) Step 5 – Shape patterns with turns

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Time	
National Curriculum Objectives	Lesson Progression
To compare and sequence intervals of time. To tell and write the time to five minutes, including quarter past/to the hour and draw hands on a clock face to show these times. To know the number of minutes in an hour and the number of hours in a day.	1) Step 1 - O'clock and half past 2) Step 2 - Quarter past and quarter to 3) Step 3 – Tell time past the hour 4) Step 4 – Tell time to the hour 5) Step 5 – Tell the time to 5 minutes 6) Step 6 – Minutes in an hour 7) Step 7 – Hours in a day