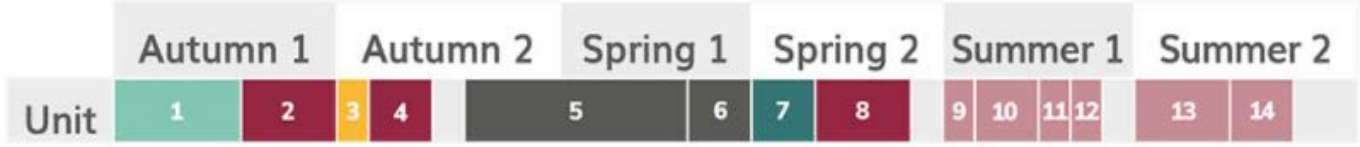
Year 2 NCETM Curriculum Map 2021



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

Unit 1	**Numbers 10 to 100 (4 weeks)**
RtPs	**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.** **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.**
NCETM spine ref.	**1.8 Composition of numbers: multiples of 10 up to 100** **1.9 Composition of numbers: 20–100**
Small step learning outcomes	1 Pupils explain that one ten is equivalent to ten ones 2 Pupils represent multiples of ten using their numerals 3 Pupils represent multiples of ten using their numerals and names 4 Pupils represent multiples of ten in an expression or an equation 5 Pupils estimate the position of multiples of ten on a 0-100 number line 6 Pupils explain what happens when you add and subtract ten to a multiple of ten 7 Pupils use knowledge of facts and unitising to add and subtract multiples of ten 8 Pupils add and subtract multiples of ten 9 Pupils explore the counting sequence for counting to 100 and beyond 10 Pupils count a large group of objects by counting groups of tens and the extra ones 11 Pupils count a large group of objects by using knowledge of unitising by counting tens and ones 12 Pupils represent a number from 20-99 in different ways 13 Pupils explain and mark the position of numbers 20-99 on a number line 14 Pupils explain that numbers 20-99 can be represented as a length 15 Pupils compare two, two-digit numbers 16 Pupils partition a two-digit number into tens and ones 17 Pupils add two, two-digit numbers by partitioning into tens and ones
Download Links	***Classroom Slides*** https://www.ncetm.org.uk/media/0i0fpeyz/cp-year-2-unit-1-numbers-10-to-100.pptx ***Specific RtP Link*** 2NPV-1 Page 51 2NPV-2 Page 53 ***Spine Materials Teacher Guidance*** https://www.ncetm.org.uk/media/ikjbjpbo/ncetm_mm_sp1_y1_se08_teach.pdf#page=4

Unit 2	Calculations within 20 (3 weeks)
RtPs	**2AS–1 Add and subtract across 10.** **2AS–2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?".**
NCETM spine ref.	**1.11 Addition and subtraction: bridging 10** **1.12 Subtraction as difference**
Small step learning outcomes	1 Pupils add three addends 2 Pupils use a 'First... Then… Now" story to add 3 addends 3 Pupils explain that addends can be added in any order 4 Pupils add 3 addends efficiently 5 Pupils add 3 addends efficiently by finding two addends that total 10 6 Pupils add two numbers that bridge through 10 7 Pupils subtract two numbers that bridge through 10 8 Pupils compare numbers and describe how many more or less there are in each set 9 Pupils calculate the difference 10 Pupils use knowledge of subtraction to solve problems in a range of contexts 11 Pupils explain what the difference is between consecutive numbers 12 Pupils calculate difference when information is presented in a pictogram 13 Pupils calculate difference when information is presented in a bar chart
Download Links	***Classroom Slides*** https://www.ncetm.org.uk/media/0huf3rwe/cp-year-2-unit-2-calculations-within-20.pptx ***Specific RtP Link*** 2AS-1 Page 57 2AS-2 Page 59 ***Spine Materials Teacher Guidance*** https://www.ncetm.org.uk/media/x51ltghh/ncetm_mm_sp1_y2_se11_teach_final-ys2.pdf#page=4

Unit 3	Fluently add and subtract within 10 (1 week)
RtPs	**2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice.**
NCETM spine ref.	**1.7 Addition and subtraction: strategies within 10**
Small step learning outcomes	1 Pupils demonstrate their fluency of addition and subtraction within ten 2 Pupils practise addition and subtraction strategies as required
Download Links	***Classroom Slides*** https://www.ncetm.org.uk/media/thfbegwh/cp-year-2-unit-3-fluently-add-and-subtract-within-10.pptx ***Specific RtP Link*** 2NF-1 Page 55 ***Spine Materials Teacher Guidance*** https://www.ncetm.org.uk/media/2kvle54l/ncetm_mm_sp1_y1_se07_teach.pdf#page=10

Unit 4	Addition and subtraction of two-digit numbers (1) (2 weeks)
RtPs	**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.**
NCETM spine ref.	**1.13 Addition and subtraction: two-digit and single-digit numbers** **1.14 Addition and subtraction: two-digit numbers and multiples of ten**
Small step learning outcomes	1 Pupils add and subtract one to and from a two-digit number 2 Pupils add and subtract one to and from a two-digit number that crosses a tens boundary 3 Pupils add and subtract one from any two-digit number 4 Pupils use number facts to add a single-digit number to a two-digit number 5 Pupils use number facts to subtract a single-digit number from a two-digit number 6 Pupils use a part-part-whole model to represent addition and subtraction 7 Pupils use number bonds to ten to add a single-digit number to a two-digit number 8 Pupils use number bonds to ten to subtract a single-digit number from a two-digit number 9 Pupils use knowledge of 'make ten' to add a one-digit number to a two-digit number 10 Pupils use knowledge of 'make ten' to subtract a multiple of ten or a single-digit from a two-digit number 11 Pupils solve problems using knowledge of addition and subtraction 12 Pupils find ten more or ten less than a two-digit number (1) 13 Pupils find ten more or ten less than a two-digit number (2) 14 Pupils add and subtract ten to/from a two-digit number 15 Pupils explain the patterns when adding and subtracting ten 16 Pupils use knowledge of adding and subtracting ten to solve problems 17 Pupils use number facts to add a multiple of ten to a two-digit number 18 Pupils use number facts to subtract a multiple of ten from a two-digit number 19 Pupils partition a two-digit number into parts in different ways (two and three parts) 20 Pupils use knowledge of adding and subtracting multiples of ten to solve problems
Download Links	***Classroom Slides*** https://www.ncetm.org.uk/media/mtvhtzaq/cp-year-2-unit-4-addition-and-subtraction-of-two-digit-numbers-1.pptx ***Specific RtP Link*** 2AS-3 Page 62 ***Spine Materials Teacher Guidance*** https://www.ncetm.org.uk/media/42vbjgqs/ncetm_mm_sp1_y2_se13_teach.pdf#page=4

Unit 5	Introduction to multiplication (7 weeks)
RtPs	**2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.**
NCETM spine ref.	**2.2 Structures: multiplication representing equal groups** **2.3 Times tables: groups of 2 and commutativity (part 1)** **2.4 Times tables: groups of 10 and of 5, and factors of 0 and 1** **2.5 Commutativity (part 2), doubling and halving**
Small step learning outcomes	1 Pupils explain that objects can be grouped in different ways 2 Pupils describe how objects have been grouped 3 Pupils represent equal groups as repeated addition 4 Pupils represent equal groups as repeated addition and multiplication 5 Pupils represent equal groups as multiplication 6 Pupils explain and represent multiplication when a group contains zero or one items 7 Pupils identify and explain each part of a multiplication equation 8 Pupils use knowledge of multiplication to calculate the product 9 Pupils represent the two times table in different ways 10 Pupils use knowledge of the two times table to solve problems 11 Pupils explain the relationship between adjacent multiples of two 12 Pupils explain that factor pairs can be written in any order 13 Pupils represent counting in tens as the ten times table 14 Pupils represent the ten times table in different ways 15 Pupils explain the relationship between adjacent multiples of ten 16 Pupils represent counting in fives as the five times table 17 Pupils represent the five times table in different ways 18 Pupils explain the relationship between adjacent multiples of five 19 Pupils explain how groups of five and ten are related 20 Pupils explain the relationship between multiples of five and ten 21 Pupils use knowledge of the relationships between the five and ten times tables to solve problems 22 Pupils explain how a factor of zero or one affect the product 23 Pupils represent multiplication equations in different ways 24 Pupils use knowledge of the two, five and ten times tables to solve problems (1) 25 Pupils use knowledge of the two, five and ten times tables to solve problems (2) 26 Pupils explain what each factor represents in a multiplication story 27 Pupils explain what each factor represents in a multiplication story when one of the factors is one 28 Pupils explain how a multiplication equation with two as a factor is related to doubling 29 Pupils double two-digit numbers 30 Pupils multiply efficiently when one of the factors is two 31 Pupils explain how halving and doubling are related 32 Pupils explain the relationship between factors and products 33 Pupils halve two-digit numbers 34 Pupils use knowledge of doubling, halving and the two times table to solve problems
Download Links	***Classroom Slides*** https://www.ncetm.org.uk/media/s4anyzz4/cp-year-2-unit-5-introduction-to-multiplication.pptx ***Specific RtP Link*** 2MD-1 Page 69 ***Spine Materials Teacher Guidance*** https://www.ncetm.org.uk/media/8d84023fc6a3601/ncetm_spine2_segment02_y2.pdf#page=4

Unit 6	Introduction to division structures (2 weeks)
RtPs	**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).**
NCETM spine ref.	**2.6 Structures: quotitive and partitive division**
Small step learning outcomes	1 Pupils explain that objects can be grouped equally 2 Pupils identify and explain when objects cannot be grouped equally 3 Pupils explain the relationship between division expressions and division stories 4 Pupils calculate the number of equal groups in a division story 5 Pupils use their knowledge of skip counting and division to solve problems relating to measure 6 Pupils skip count using the divisor to find the quotient 7 Pupils use their knowledge of division to solve problems 8 Pupils explain that objects can be shared equally 9 Pupils use skip counting to solve a sharing problem 10 Pupils skip count using the divisor to find the quotient 11 Pupils solve a variety of division problems, explaining their understanding
Download Links	***Classroom Slides*** https://www.ncetm.org.uk/media/13beljov/cp-year-2-unit-6-introduction-to-division-structures.pptx ***Specific RtP Link*** 2MD-2 Page 72 ***Spine Materials Teacher Guidance*** https://www.ncetm.org.uk/media/e3gpoxwb/ncetm_spine2_segment06_y2.pdf#page=5

Unit 7	Shape (2 weeks)
RtPs	**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.**
NCETM spine ref.	**No spine for Geometry**
Small step learning outcomes	1 Pupils learn that a polygon is a 2D shape with straight sides that meet at vertices 2 Pupils describe polygons and find different ways to sort them 3 Pupils learn that polygons can be sorted and named according to the number of sides and vertices 4 Pupils discuss, and compare by direct comparison, the shape and size of polygons 5 Pupils discuss, and compare by direct comparison, the vertices of polygons 6 Pupils investigate how polygons can be joined and folded to form 3-dimensional shapes 7 Pupils describe 3-dimensional shapes and find different ways to sort them 8 Pupils discuss, and compare by direct comparison, the shape and size of 3-dimensional shapes
Download Links	***Classroom Slides*** https://www.ncetm.org.uk/media/uaulo4zr/cp-year-2-unit-7-shape.pptx ***Specific RtP Link*** 2G-1 Page 74 ***Spine Materials Teacher Guidance*** No spine for geometry For progression of spacial reasoning see ECMG-Spatial-Reasoning-TRAJECTORY-new.pdf (earlymaths.org)

Unit 8	Addition and subtraction of two-digit numbers (2) (3 weeks)
RtPs	**2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.**
NCETM spine ref.	**1.15 Addition: two-digit and two-digit numbers** **1.16 Subtraction: two-digit and two-digit numbers**
Small step learning outcomes	1 Pupils explain strategies used to add 2 Pupils add a two-digit number to a two-digit number 3 Pupils add a two-digit number to a two-digit number when not crossing ten (i) 4 Pupils add a two-digit number to a two-digit number when not crossing ten (ii) 5 Pupils add a two-digit number to a two-digit number when crossing ten 6 Pupils explain strategies used to subtract 7 Pupils subtract a two-digit number from a two-digit number 8 Pupils partition the subtrahend to help with subtraction 9 Pupils subtract a two-digit number from a two-digit number when not crossing ten (i) 10 Pupils subtract a two-digit number from a two-digit number when not crossing ten (ii) 11 Pupils subtract a two-digit number from a two-digit number when crossing ten 12 Pupils subtract efficiently using knowledge of two-digit numbers
Download Links	***Classroom Slides*** https://www.ncetm.org.uk/media/xgwo5wtt/cp-year-2-unit-8-addition-and-subtraction-of-two-digit-numbers-2.pptx ***Specific RtP Link*** 2AS-4 Page 66 ***Spine Materials Teacher Guidance*** https://www.ncetm.org.uk/media/k5yjquja/ncetm_mm_sp1_y2_se15_teach.pdf#page=5

Unit 9	Money (1 week)
RtPs	**This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery Professional Development Materials.**
NCETM spine ref.	**NA**
Small step learning outcomes	There are no NCETM small step learning outcomes for this unit. **National curriculum statutory requirements (p14)** Pupils should be taught to: • recognise and use symbols for 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. Notes and guidance (non-statutory) • Pupils become fluent in counting and recognising coins. They read and say amounts of money confidently and use the symbols £ and p accurately, recording pounds and pence separately.
Download Links	***Classroom Slides*** No slides available but see NCETM's website for further ideas https://www.ncetm.org.uk/classroom-resources/cp-year-2-unit-9-money/ ***Specific RtP Link*** This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials. ***Spine Materials Teacher Guidance*** No spine guidance

Unit 10	Fractions (2 weeks)
RtPs	**No RtP for Y2**
NCETM spine ref.	**3.0 Guidance on the teaching of fractions in Key Stage 1**
Small step learning outcomes	1 Pupils identify whether something has or has not been split into equal parts 2 Pupils name the fraction 'one-half' in relation to a fraction of a length, shape or set of objects 3 Pupils name the fraction 'one-quarter' in relation to a fraction of a length, shape or set of objects 4 Pupils name the fraction 'one-third' in relation to a fraction of a length, shape or set of objects 5 Pupils read and write the fraction notation ½, ⅓ and ¼ and relate this to a fraction of a length, shape or set of objects 6 Pupils find half of numbers 7 Pupils find ⅓ or ¼ of a number 8 Pupils find ¼ and ¾ of an object, shape, set of objects, length or quantity 9 Pupils recognise the equivalence of 2⁄4 and ½
Download Links	***Classroom Slides*** https://www.ncetm.org.uk/media/qszal0fi/cp-year-2-unit-10-fractions.pptx ***Specific RtP Link*** This topic is part of the National Curriculum but is not included in the DfE 2020 guidance for Y2. ***Spine Materials Teacher Guidance*** https://www.ncetm.org.uk/media/35fp13yk/ncetm_spine3_segment00_y2.pdf#page=2

Unit 11	Time (1 week)
RtPs	**This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials.**
NCETM spine ref.	**NA**
Small step learning outcomes	There are no NCETM small step learning outcomes for this unit. National curriculum statutory requirements (p14) Pupils should be taught to: • compare and sequence intervals of time • tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times • know the number of minutes in an hour and the number of hours in a day. Notes and guidance (non-statutory) • Pupils use standard units of measurement with increasing accuracy, using their knowledge of the number system. They become fluent in telling the time on analogue clocks and recording it.
Download Links	***Classroom Slides*** No slides available but see NCETM's website for further ideas https://www.ncetm.org.uk/classroom-resources/cp-year-2-unit-11-time/ ***Specific RtP Link*** This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials. ***Spine Materials Teacher Guidance*** No spine guidance

Unit 12	Position and direction (1 week)
RtPs	**This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials.**
NCETM spine ref.	**NA**
Small step learning outcomes	There are no NCETM small step learning outcomes for this unit. National curriculum statutory requirements (p16) Pupils should be taught to: • order and arrange combinations of mathematical objects in patterns and sequences • 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). Notes and guidance (non-statutory) • Pupils should work with patterns of shapes, including those in different orientations. • Pupils use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (for example, pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots using instructions given in right angles).
Download Links	***Classroom Slides*** No slides available but see NCETM's website for further ideas https://www.ncetm.org.uk/classroom-resources/cp-year-2-unit-12-position-and-direction/ ***Specific RtP Link*** This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials. ***Spine Materials Teacher Guidance*** No spine guidance

Unit 13	Multiplication and division – doubling, halving, quotitive and partitive division (3 weeks)
RtPs	**NA**
NCETM spine ref.	**2.5 Commutativity (part 2), doubling and halving** **2.6 Structures: quotitive and partitive division**
Small step learning outcomes	1 Pupils identify the patterns and relationships between the 5 and 10 times tables 2 Pupils explain the patterns and relationships between the 5 and 10 times tables 3 Pupils use their knowledge of the 5 and 10 times tables to solve problems 4 Pupils identify and explain relationships between the 5 and the 10 times tables 5 Pupils use their knowledge of the 5 and 10 times tables to solve problems 6 Pupils explain how times table facts can help to find the quotient (10 times table) 7 Pupils explain how times table facts can help to find the quotient (5 times table) 8 Pupils explain how times table facts can help to find the quotient (2 times table) 9 Pupils explain how a division equation with 2 as a divisor is related to halving 10 Pupils explain each part of a division equation and know how they can be interchanged 11 Pupils use knowledge of divisibility rules when the divisor is 2 to solve problems 12 Pupils use knowledge of divisibility rules when then divisor is 10 to solve problems 13 Pupils use knowledge of divisibility rules when the divisor is 5 to solve problems 14 Pupils explain how a dividend of zero affects the quotient 15 Pupils explain how the quotient is affected when the divisor is equal to the dividend 16 Pupils explain how a divisor of one affects the quotient
Download Links	***Classroom Slides*** https://www.ncetm.org.uk/media/z41gnthi/cp-year-2-unit-13-multiplication-and-division-doubling-halving-quotitive-and-partitive-division.pptx ***Specific RtP Link*** No RtP

	Spine Materials Teacher Guidance https://www.ncetm.org.uk/media/2zypudw2/ncetm_spine2_segment05_y2.pdf#page=44 https://www.ncetm.org.uk/media/e3gpoxwb/ncetm_spine2_segment06_y2.pdf#page=41

Unit 14	**Sense of measure – capacity, volume, mass (2 weeks)**
RtPs	**This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials.**
NCETM spine ref.	**NA**
Small step learning outcomes	There are no NCETM small step learning outcomes for this unit. National curriculum statutory requirements (p14) Pupils should be taught to: • choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • compare and order lengths, mass, volume/capacity and record the results using >, < and = . Notes and guidance (non-statutory) • Pupils use standard units of measurement with increasing accuracy, using their knowledge of the number system. They use the appropriate language and record using standard abbreviations. • Comparing measures includes simple multiples such as 'half as high'; 'twice as wide'.
Download Links	***Classroom Slides*** No slides available but see NCETM's website for further ideas https://www.ncetm.org.uk/classroom-resources/cp-year-2-unit-14-sense-of-measure-capacity-volume-mass/ ***Specific RtP Link*** This topic is part of the National Curriculum but is not included in the DfE 2020 guidance or the NCETM Mastery PD Materials. ***Spine Materials Teacher Guidance*** No spine guidance