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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Term** | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** | **Week 8** |  | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** | **Week 8** | **Week 9** |
| **Autumn 1 – 8 Weeks** | **Autumn 2 – 9 Weeks** |
|  | **Pixl Paper Testing Window (Paper 1)** |  | **Start of** | **Pixl Y2 Testing Window (2018 Paper)** | **Y2 QLA Deadline** | **Y2 IFT Reports** |  |
|  |  | **Pixl Y3-5 Testing Window** |  |  |
|  | **Y6 QLA Deadline** | **Y6 IFT Reports** |  | **Y3-5 QLA Deadline** | **Y3-5 IFT Reports** | **Pixl Y6 Testing Window (2017 Paper)** | **Y6 QLA Deadline** | **Y6 IFT Reports** |  |
| **Autumn** | **Number: Place Value****(Within 10)****4 weeks****Small Steps: 14****NCETM Spine:** [**1.1**](https://www.ncetm.org.uk/resources/50699) **(comparison context)** [**1.3**](https://www.ncetm.org.uk/resources/50720)**, (numbers 0-5) and** [**1.4**](https://www.ncetm.org.uk/resources/50721)**(numbers 6-10)*****Note: part-whole shows up in*** [***1.2***](https://www.ncetm.org.uk/resources/50719) ***which could be used before*** [***1.3***](https://www.ncetm.org.uk/resources/50720) | **Number: Addition & Subtraction** **(Within 10)****5 Weeks****Small Steps: 16****NCETM Spine:** [**1.2**](https://www.ncetm.org.uk/resources/50719) **(part whole model)** [**1.5**](https://www.ncetm.org.uk/resources/50722)**,** [**1.6**](https://www.ncetm.org.uk/resources/50723)**,** [**1.7**](https://www.ncetm.org.uk/resources/50724) | **Consolidation/****Assessment** | **Number: Addition & Subtraction** **(Within 10)****5 Weeks** | **Geometry: Shape****1 Week****Small Steps: 5****NCETM Spine: N/A** | **Number: Place Value (Within 20)****2 Weeks****Small Steps: 8****NCETM Spine:** [**1.10**](https://www.ncetm.org.uk/resources/50727) **(TP 1 and 2)** | **Consolidation/****Assessment** | **Number: Addition & Subtraction** **(Within 20)****3 Weeks****Small Steps: 8****NCETM Spine:** [**1.10**](https://www.ncetm.org.uk/resources/50727) **and 1.11**  |
| **Spring 1 – 6 Weeks** |  |  | **Spring 2 – 7 Weeks** |
|  | **Pixl Y1 Testing Window**  | **Y1 QLA Deadline** | **Y1 IFT Reports** |  |
|  | **Pixl Y3-5 Testing Window** |  | **Pixl Y2 Testing Window (2019 Paper)****Pixl Y6 Testing Window (2019 Paper)** | **Y2 & Y6 QLA Deadline** | **Y2 & Y6 IFT Reports** |  |
|  | **Pixl Y6 Testing Window (2018 Paper)** | **Y6 QLA Deadline** | **Y6 IFT Reports** | **Pixl Y3-5 Testing Window** | **Y3-5 QLA Deadline** | **Y3-5 IFT Reports** |  |
| **Spring** | **Number: Place Value (Within 50)****3 Weeks****Small Steps: 9****NCETM Spine:** [**1.9**](https://www.ncetm.org.uk/resources/50726)**,** [**2.1**](https://www.ncetm.org.uk/resources/52889) | **Measurement: Length & Height****2 Weeks****Small Steps: 3****NCETM Spine:** [**1.1**](https://www.ncetm.org.uk/resources/50699) | **Consolidation/****Assessment** |  | **Measurement:****Weight & Volume****2 Weeks****Small Steps: 6****NCETM Spine:** [**1.1**](https://www.ncetm.org.uk/resources/50699) | **Number: Multiplication & Division** **3 Weeks****Small Steps: 9****NCETM Spine:** [**2.1**](https://www.ncetm.org.uk/resources/52889) **(TP 1-3) could also ref back to** [**1.8**](https://www.ncetm.org.uk/resources/50725) **TP 2** | **Consolidation/****Assessment** |  |
|  **Summer 1 – 5 Weeks** |  |  | **Summer 2 – 5 Weeks** |
|  | **Pixl Y1 Testing Window** |  | **Pixl Y1 Testing Window** | **Y1 QLA Deadline** | **Y1 IFT Reports** |  |
|  | **Pixl Y3-5 Testing Window** |  | **Pixl Y3-5 Testing Window** | **Y3-5 QLA Deadline** | **Y3-5 IFT Reports** |
| **Summer** | **Number: Fractions****2 Weeks****Small Steps: 4****NCETM:** [**Key Stage 1**](https://www.ncetm.org.uk/resources/53655)**Year 1: Halving shapes or objects****Year 1: Find a quarter of a shape or object** |  **Number: Place Value (Within 100)****2 Weeks****Small Steps: 6****NCETM Spine:** [**1.9**](https://www.ncetm.org.uk/resources/50726) | **Consolidation/****Assessment** |  | **Geometry: Position & Direction****1 Week****Small Steps: 3****NCETM Spine: N/A** | **Measurement: Money** **1 Week****Small Steps: 3****NCETM Spine:** [**2.1**](https://www.ncetm.org.uk/resources/52889) **(TP 4 – 6)** | **Measurement: Time****2 Weeks****Small Steps: 6****NCETM Spine: N/A** | **Consolidation/****Assessment** |

YEAR 1 – KS1 Mathematics Curriculum Map 2021-22

**Year 1 National Curriculum Objectives, White Rose Small Steps & NCTEM Spine Teaching Points**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Autumn** | **Place Value (Within 10) – 4 Weeks** | **Addition & Subtraction (Within 10) - 5 Weeks** | **Geometry: Shape - 1 Week** | **Number & Place Value (Within 20) –** **2 Weeks** | **Addition & Subtraction (Within 20) - 3 Weeks** |
| **National Curriculum Objectives** | * count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
* count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
* given a number, identify 1 more and 1 less
* identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
* read and write numbers from 1 to 20 in numerals and words
 | * read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs
* represent and use number bonds and related subtraction facts within 20
* add and subtract one-digit and two-digit numbers to 20, including 0
* solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? − 9
 | * recognise and name common 2-D and 3-D shapes, including:
* 2-D shapes [for example, rectangles (including squares), circles and triangles]
* 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]
 | * count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
* count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
* given a number, identify 1 more and 1 less
* identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
* read and write numbers from 1 to 20 in numerals and words
 | * read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs
* represent and use number bonds and related subtraction facts within 20
* add and subtract one-digit and two-digit numbers to 20, including 0
* solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? − 9
 |
| **White Rose Small steps** | * Sort objects
* Count objects
* Represent objects
* Count, read and write forwards from any number 0 to 10
* Count, red and write backwards from any number 0 to 10
* Count one more
* Count on less
* One-to-one correspondence to start to compare groups
* Introduce <,> and = symbols
* Compare numbers
* Order groups of objects
* Order numbers
* Ordinal numbers (1st, 2nd, 3rd…)
* The number line
 | * Part-whole model
* Addition symbols
* Fact families
* Find number bonds for numbers within 10
* Systematic methods for number bonds within 10
* Compare number bonds
* Addition – adding together
* Addition – adding more
* Finding a part
* Subtraction – taking away, how many left? Crossing out
* Subtraction – finding a part, breaking apart
* Fact families – the 8 facts
* Subtraction – counting back
* Subtraction – finding the difference
* Comparing addition and subtraction statements e.g. a+b > c
* Comparing addition and subtraction statements e.g. a+b > c+d
 | * Recognise and name 3-D shapes
* Sort 3-D Shapes
* Recognise and name 2-D Shapes
* Sort 2-D shapes
* Patterns with 3-D and 2-D shapes
 | * Count forwards and backwards and write numbers to 20 in numerals and words
* Numbers 11 to 20
* Tens and ones
* Count one more and one less
* Compare groups of objects
* Compare numbers
* Order groups of objects
* Order numbers
 | * Add by counting on
* Find & make number bonds
* Add by making 10
* Subtraction – Not crossing 10
* Subtraction – Crossing 10 (1)
* Subtraction Crossing 10 (2)
* Related facts
* Compare number sentences
 |
| **NCTEM Spine Teaching Points** | **1.1. – Comparison of quantities and measures**Explore the relationship between numbers and introduce children to the important concept of equivalence; focus on the correct use of comparative language, as well as use of mathematical symbols (<, = and >)**1.3 - Composition of numbers: 0-5**Apply the partitioning structure to the numbers to five, and introduce children to new concepts such as subitising, ordinality and the bar model.**1.4 – Composition of numbers 6 -10**Extend the partitioning structure to the numbers six to ten, explore the five-and-a-bit structure of the numbers, and introduce children to the concept of odd and even numbers. | **1.2 – Introducing ‘whole’ and ‘parts’: part-part-whole model** Introduce children to the concept of partitioning, which underpins many of the subsequent segments, and build towards use of the part–part–whole model.**1.5 – Additive structures: introduce to aggregation and partitioning**Progress to the use of abstract notation (+, − and =) as a way of representing the part–part–whole structure.**1.6 – Additive structures: introduce to augmentation and reduction**Introduce children to addition as augmentation, and subtraction as reduction (take away), using a ‘*first…, then…, now…*’ story representation and abstract notation (+, − and =); explore the inverse nature of the two operations.**1.7 – Addition and subtraction: strategies within 10**Equip children with a range of useful strategies for addition within ten, including adding and subtracting zero and one, commutativity, adding and subtracting two to/from odd and even numbers, and doubling and halving. | **N/A** | **1.10 – Composition of numbers 11-19**Explore the ten-and-a-bit nature of the numbers 11–19, using the partitioning structure; apply number facts within ten to addition and subtraction of single-digit numbers to/from the numbers 11–19. | **1.10 – Composition of numbers 11-19**Explore the ten-and-a-bit nature of the numbers 11–19, using the partitioning structure; apply number facts within ten to addition and subtraction of single-digit numbers to/from the numbers 11–19.**1.11 – Addition and subtraction bridging 10**Apply the aggregation and augmentation structures of addition to three single-digit numbers, exploring commutativity and associativity, to work towards strategies for adding and subtracting across ten. |
| **Spring** | **Number & Place Value****(Within 50) – 3 Weeks** | **Measurement: Length & Height – 2 Weeks** | **Measurement: Weight & Volume – 2 Weeks** | **Number: Multiplication & Division – 3 Weeks** |
| **National Curriculum Objectives** | * count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
* count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
* given a number, identify 1 more and 1 less
* identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
* read and write numbers from 1 to 20 in numerals and words
 | * compare, describe and solve practical problems for:
* lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
* mass/weight [for example, heavy/light, heavier than, lighter than]
* capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
 | * compare, describe and solve practical problems for:
* lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
* mass/weight [for example, heavy/light, heavier than, lighter than]
* capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
* time [for example, quicker, slower, earlier, later]
* measure and begin to record the following:
* lengths and heights
* mass/weight
* capacity and volume)
 | * count in multiples of twos, fives and tens
* solve one step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher
 |
| **White Rose Small steps** | * Numbers to 50
* Tens and ones
* Represent numbers to 50
* One more one less
* Compare objects within 50
* Compare numbers within 50
* Order numbers within 50
* Count in 2s
* Count in 5s
 | * Compare lengths and heights
* Measure length (1)

Measure length (2) | * Introduce weight and mass
* Measure mass
* Compare mass
* Introduce capacity and volume
* Measure capacity
* Compare capacity
 | * Count in 2s
* Count in 5s
* Count in 10s
* Make equal groups
* Add equal groups
* Make arrays
* Make doubles
* Make equal groups – grouping
* Make equal groups – sharing
 |
| **NCTEM Spine Teaching Points** | **1.9 – Composition of numbers 20 – 100**Build on multiples of ten, by introducing non-zero values in the ones place; apply the partitioning structure to these two-digit numbers, decomposing them into tens and ones.**2.1 – Counting, unitising and coins**Explore the concept of unitising by counting in units of two, five or ten; investigate how objects can be counted efficiently by counting in units other than one; apply unitising in the context of the low-denomination coins (1 p, 2 p, 5 p and 10 p). | **1.1. – Comparison of quantities and measures**Explore the relationship between numbers and introduce children to the important concept of equivalence; focus on the correct use of comparative language, as well as use of mathematical symbols (<, = and >) | **1.1. – Comparison of quantities and measures**Explore the relationship between numbers and introduce children to the important concept of equivalence; focus on the correct use of comparative language, as well as use of mathematical symbols (<, = and >) | **2.1 – Counting, unitising and coins**Explore the concept of unitising by counting in units of two, five or ten; investigate how objects can be counted efficiently by counting in units other than one; apply unitising in the context of the low-denomination coins (1 p, 2 p, 5 p and 10 p).**1.8 – Composition of numbers: multiples of 10 up to 100**Explore multiples of ten, including counting in tens to 100; apply number facts within ten to addition and subtraction for multiples of ten |
| **Summer** | **Number: Fractions – 2 Weeks** | **Number & Place Value** **(Within 100) – 2 Weeks** | **Geometry: Position & Direction – 1 Week**  | **Measurement: Money – 1 Week**  | **Measurement: Time – 2 Weeks** |
| **National Curriculum Objectives** | * recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity
* recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity
 | * count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
* count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
* given a number, identify 1 more and 1 less
* identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
* read and write numbers from 1 to 20 in numerals and words
 | * describe position, direction and movement, including whole, half, quarter and three quarter turns
 | * recognise and know the value of different coins and notes
 | * sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening)
* recognise and use language relating to dates, including days of the week, weeks, months and years
* tell the time to the hour and half past the hour and draw the hands on a clock face to show these times
 |
| **White Rose Small steps** | * Find a half (1)
* Find a half (2)
* Find a quarter (1)
* Find a quarter (2)
 | * Counting forwards and backwards within 100
* Partitioning numbers
* Comparing numbers (1)
* Comparing numbers (2)
* Ordering numbers
* One more, one less
 | * Describe turns
* Describe position (1)
* Describe position (2)
 | * Recognising coins
* Recognising notes
* Counting coins
 | * Before and after
* Dates
* Time to the hour
* Time to the half hour
* Writing time
* Comparing time
 |
| **NCTEM Spine Teaching Points** | **NCETM: Key Stage 1**Cover the Key Stage 1 statutory requirements for fractions, including recognising, finding, naming and writing one-quarter, one-third, one-half/two-quarters, and three-quarters of an object, shape or quantity.Year 1: Halving shapes or objectsYear 1: Find a quarter of a shape or object | **1.9 – Composition of numbers 20 – 100**Build on multiples of ten, by introducing non-zero values in the ones place; apply the partitioning structure to these two-digit numbers, decomposing them into tens and ones. | **N/A** | **2.1 – Counting, unitising and coins**Explore the concept of unitising by counting in units of two, five or ten; investigate how objects can be counted efficiently by counting in units other than one; apply unitising in the context of the low-denomination coins (1 p, 2 p, 5 p and 10 p). | **N/A** |