

Woodlands mathematics curriculum plan

Year 1

Long term plan.

The LTP is a guide for what should be taught and when but this will change depending on the needs of your teaching group. If it is a weaker area then more time will need to be spent on the strand. If you feel your teaching group are secure then less time will be needed and you can then build in additional revision/consolidation or move on to the next strand. Use the LTP as a guide but ensure that the time spent on each strand matches the need of your teaching group.

The LTP does not include assessment weeks.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place value (within 10) 4 weeks				Number: Addition and subtraction (within 10) 5 weeks		Revision week	Number: Addition and subtraction (within 10) 5 weeks			Number: Place value (within 20) 2 weeks	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Spring	Consolidation of Autumn term	Number: Addition and subtraction (within 20) 2 to 3 weeks			Number: Place value (within 50) multiples of 2, 5 and 10 2 to 3 weeks			Number: Place value (within 100) 2 weeks		Number: Multiplication and division 3 weeks			Consolidation of Spring and Autumn term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Summer	Number: Fractions 2 weeks		Health and fitness week	Consolidation weeks - reinforce concepts taught through application, problem solving and reasoning. Measures and geometry							

Daily dashboard, daily sizzling 6 starters, daily reasoning challenges and weekly workouts revisit and keep simmering content children have already been taught. Areas to be also be taught through continuous provision, spicy/scorcher challenges and through cross-curricular links - measure, geometry, time, rapid recall of number facts.

Resource Links

[Vocabulary progression document](#)

[Year 1 maths mastery booklet](#)

[NCETM place value reasoning map with NRICH links](#)

[NCETM addition and subtraction reasoning map with NRICH links](#)

[NCETM multiplication and division reasoning map with NRICH links](#)

[NCETM fractions reasoning map with NRICH links](#)

[NCETM measurement reasoning map with NRICH links](#)

[NCETM Geometry – shape - reasoning map with NRICH links](#)

[NCETM Geometry – position - reasoning map with NRICH links](#)

White Rose fluency, reasoning and problem solving documents

[White Rose Autumn Mastery document](#)

[White Rose Spring Mastery document](#)

[White Rose Summer Mastery document](#)

[Blooms planning tool](#)

[Blooms questions KS1](#)

[White Rose end of block assessments](#)

[White Rose end of term assessments](#)

White Rose reasoning problems Powerpoints

[Place value within 10](#)

[Place value within 20](#)

[Place value to 50](#)

[Place value to 100](#)

[Addition and subtraction to 10](#)

[Addition and subtraction to 20](#)

[Length and height](#)

[Weight and volume](#)

[Multiplication and division](#)

[Fractions](#)

[Position and direction](#)

[Money](#)

[Time](#)

[Shape](#)

Medium term plan.

Autumn term

Number: Place value (within 10) – 4 weeks

White Rose Small Steps

- Sort objects
- Count objects
- Represent objects
- Count, read and write forwards from any number 0 to 10
- Count, read and write backwards from any number 0 to 10
- Count one more
- Count one less
- One-to-one correspondence to start to compare groups
- Compare groups using language such as equal, more/greater, less/fewer
- Introduce $<$, $>$ and $=$ symbols
- Compare numbers
- Order groups of objects
- Order numbers
- Ordinal numbers (1st, 2nd, 3rd etc)
- The number line

1.1 Comparison of quantities and measures

NCETM spine link

Teaching Point 1: Items can be compared according to attributes such as length (or height or breadth), area, volume/capacity or weight/mass.

Teaching Point 2: When comparing two sets of objects, one set can contain more objects than the other and one set can contain fewer objects than the other, or both sets can contain the same number of objects.

Teaching Point 3: The symbols $<$, $>$ and $=$ can be used to express the relative number of objects in two sets, or the relative size of two numbers.

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;*
- *given a number, identify one more and one 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.*

1.2 Introducing 'whole' and 'parts': part-part-whole

[NCETM spine link](#)

Teaching point 1: A 'whole' can be represented by one object; if some of the whole object is missing, it is not the 'whole'.

Teaching point 2: A whole object can be split into two or more parts in many different ways. The parts might look different; each part will be smaller than the whole, and the parts can be combined to make the whole.

Teaching point 3: A 'whole' can be represented by a group of discrete objects. If some of the objects in the group are missing, it is not the whole group – it is part of the whole group.

Teaching point 4: A whole group of objects can be composed of two or more parts and this can be represented using a part-part-whole 'cherry' diagram. The group can be split in many different ways. The parts might look different; each part will be smaller than the whole group and the parts can be combined to make the whole group.

1.3 Composition of numbers: 0–5

[NCETM spine link](#)

Teaching point 1: Numbers can represent how many objects there are in a set; for small sets we can recognise the number of objects (subitise) instead of counting them.

Teaching point 2: Ordinal numbers indicate a single item or event, rather than a quantity.

Teaching point 3: Each of the numbers one to five can be partitioned in different ways.

Teaching point 4: Each of the numbers one to five can be partitioned in a systematic way.

Teaching point 5: Each of the numbers one to five can be partitioned into two parts; if we know one part, we can find the other part.

Teaching point 6: The number before a given number is one less; the number after a given number is one more.

Teaching point 7: Partitioning can be represented using the bar model.

1.4 Composition of numbers: 6–10

[NCETM spine link](#)

Teaching point 1: The numbers six to nine are composed of 'five and a bit'. Ten is composed of five and five.

Teaching point 2: Six, seven, eight and nine lie between five and ten on a number line.

Teaching point 3: Numbers that can be made out of groups of two are even numbers; numbers that can't be made out of groups of two are odd numbers. Even numbers can be partitioned into two odd parts or two even parts; odd numbers can be partitioned into one odd part and one even part.

Teaching point 4: Each of the numbers six to ten can be partitioned in different ways. The numbers six to ten can be partitioned in a systematic way.

Teaching point 5: Each of the numbers six to ten can be partitioned into two parts; if we know one part, we can find the other part.

Number: Addition and subtraction (within 10) – 5 weeks

1.6 Additive structures: introduction to augmentation and reduction

[NCETM spine link](#)

Teaching point 1: An addition context described by a 'first..., then..., now...' story is an example of augmentation. We can link the story to a numerical representation – each number represents something in the story.

Teaching point 2: A subtraction context described by a 'first..., then..., now...' story is an example of reduction. We can link the story to a numerical representation – each number represents something in the story.

Teaching point 3: Given any two parts of the story we can work out the third part; given any two numbers in the equation we can find the third one.

Teaching point 4: Addition and subtraction are inverse operations.

[National curriculum objectives](#)

- *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 zero*
- *solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$.*

1.7 Addition and subtraction: strategies within 10

[NCETM spine link](#)

Teaching point 1: Addition is commutative: when the order of the addends is changed, the sum remains the same.

Teaching point 2: Ten can be partitioned into pairs of numbers that sum to ten. Recall of these pairs of numbers supports calculation.

Teaching point 3: Adding one gives one more; subtracting one gives one less.

Teaching point 4: Consecutive numbers have a difference of one; we can use this to solve subtraction equations where the subtrahend is one less than the minuend.

Teaching point 5: Adding two to an odd number gives the next odd number; adding two to an even number gives the next even number. Subtracting two from an odd number gives the previous odd number; subtracting two from an even number gives the previous even number.

Teaching point 6: Consecutive odd / consecutive even numbers have a difference of two; we can use this to solve subtraction equations where the subtrahend is two less than the minuend.

Teaching point 7: When zero is added to a number, the number remains unchanged; when zero is subtracted from a number, the number remains unchanged.

Teaching point 8: Subtracting a number from itself gives a difference of zero.

Teaching point 9: Doubling a whole number always gives an even number and can be used to add two equal addends; halving is the inverse of doubling and can be used to subtract a number from its double. Memorised doubles/halves can be used to calculate near-doubles/halves.

Teaching point 10: Addition and subtraction facts for the pairs five and three, and six and three, can be related to known facts and strategies.

Number: Place value (within 20) – 2 weeks

White Rose Small Steps

- Count forwards and backwards and write numbers to 20 in numerals and words
- Numbers from 11 to 20
- Tens and ones
- Count one more and one less
- Compare groups of objects
- Compare numbers
- Order groups of objects
- Order numbers

1.10 Composition of numbers: 11–19

NCETM spine link

Teaching point 1: The digits in the numbers 11–19 tell us about their value.

Teaching point 2: The numbers 11–19 can be formed by combining a ten and ones, and can be partitioned into a ten and ones.

Teaching point 3: A number is even if the ones digit is even; it *can* be made from groups of two. A number is odd if the ones digit is odd; it *can't* be made from groups of two.

Teaching point 4: Doubling the numbers 6–9 (inclusive) gives an even teen number; halving an even teen number gives a number from six to nine (inclusive).

Teaching point 5: Addition and subtraction facts within 10 can be applied to addition and subtraction within 20.

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;*
- *given a number, identify one more and one 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.*

Spring term

Number: Addition and subtraction (within 20) – 3 weeks

White Rose Small Steps

- Add by counting on
- Find and make number bonds
- Add by making 10
- Subtraction – not crossing 10
- Subtraction – crossing 10 (1)
- Subtraction – crossing 10 (2)
- Related facts
- Compare number sentences

White Rose Small Steps

- Add by counting on
- Find and make number bonds
- Add by making 10
- Subtraction – not crossing 10
- Subtraction – crossing 10 (1)
- Subtraction – crossing 10 (2)
- Related facts
- Compare number sentences

Number: Place value (within 50) multiples of 2, 5 and 10 – 2/3 weeks

count in multiples of twos, fives and tens

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

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;*
- *given a number, identify one more and one 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.*

1.8 Composition of numbers: multiples of 10 up to 100

NCETM spine link

Teaching point 1: One ten is equivalent to ten ones.

Teaching point 2: Multiples of ten can be represented using their names or using numerals. We can count in multiples of ten. Teaching point 3: Knowledge of the 0–10 number line can be used to estimate the position of multiples of ten on a 0–100 number line. Teaching point 4: Adding ten to a multiple of ten gives the next multiple of ten; subtracting ten from a multiple of ten gives the previous multiple of ten. Teaching point 5: Known facts for the numbers <i>within</i> ten can be used to add and subtract in multiples of ten by unitising.	
Number: place value within 100 – 2 weeks	
<u>White Rose Small steps</u> • Counting to 100 • Partitioning numbers • Comparing numbers (1) • Comparing numbers (2) • Ordering numbers • One more, one less 1.9 Composition of numbers: 20–100 <u>NCETM spine link</u> Teaching point 1: There is a set counting sequence for counting to 100 and beyond. Teaching point 2: Objects can be counted efficiently by making groups of ten. The digits in the numbers 20–99 tell us about their value. Teaching point 3: Each number on the 0–100 number line has a unique position. Teaching point 4: The relative size of two two-digit numbers can be determined by first examining the tens digits and then, if necessary, examining the ones digits, with reference to the cardinal or ordinal value of the numbers. Teaching point 5: Each two-digit number can be partitioned into a tens part and a ones part.	<u>National curriculum objectives</u> ○ <i>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</i> ○ <i>count, read and write numbers to 100 in numerals;</i> ○ <i>given a number, identify one more and one less</i> ○ <i>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</i> ○ <i>read and write numbers from 1 to 20 in numerals and words.</i>

Teaching point 6: The tens and ones structure of two-digit numbers can be used to support additive calculation.

Number: Multiplication and division – 3 weeks

White Rose Small Steps

- Count in 10s
- Make equal groups
- Add equal groups
- Make arrays
- Make doubles
- Make equal groups – grouping
- Make equal groups - sharing

2.1 Counting, unitising and coins

NCETM spine link

Teaching point 1: We can count efficiently by counting in groups of two.

Teaching point 2: We can count efficiently by counting in groups of ten.

Teaching point 3: We can count efficiently by counting in groups of five.

Teaching point 4: A coin has a value which is independent of its size, shape, colour or mass.

White Rose Small Steps

- Count in 10s
- Make equal groups
- Add equal groups
- Make arrays
- Make doubles
- Make equal groups – grouping
- Make equal groups - sharing

2.1 Counting, unitising and coins

NCETM spine link

Teaching point 1: We can count efficiently by counting in groups of two.

Teaching point 2: We can count efficiently by counting in groups of ten.

Teaching point 3: We can count efficiently by counting in groups of five.

Teaching point 5: The *number* of coins in a set is different from the *value* of the coins in a set; knowledge of counting in groups of two, five or ten can be used to work out the value of a set of identical low-denomination coins.

Teaching point 6: Knowledge of counting in groups of two, five or ten can be used to work out how many identical low-denomination coins are needed to make a given value.

Teaching point 4: A coin has a value which is independent of its size, shape, colour or mass.

Teaching point 5: The *number* of coins in a set is different from the *value* of the coins in a set; knowledge of counting in groups of two, five or ten can be used to work out the value of a set of identical low-denomination coins.

Teaching point 6: Knowledge of counting in groups of two, five or ten can be used to work out how many identical low-denomination coins are needed to make a given value.

Summer term.

Number: Fractions – 1 to 2 weeks	
<u>White Rose Small Steps</u> • Find a half (1) • Find a half (2) • Find a quarter (1) • Find a quarter (2) 3.0 Guidance on the teaching of fractions in Key Stage 1 <u>NCETM spine link</u> 1: Name the fractions ‘one-half’, ‘one-quarter’ and ‘one-third’ in relation to a fraction of a length, shape or set of objects.	<u>National curriculum objectives</u> ○ <i>recognise, find and name a half as one of two equal parts of an object, shape or quantity</i> ○ <i>recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</i>
Measurement: Money – 1 week	
<u>White Rose Small Steps</u> • Recognising coins • Recognising notes • Counting in coins	<u>National curriculum objectives</u> ○ <i>recognise and know the value of different denominations of coins and notes</i>
Geometry – position and direction – 1 week	
White Rose Small Steps • Describe turns (2) • Describe position (2) • Describe position (2)	<u>National curriculum objectives</u> ○ <i>describe position, direction and movement, including whole, half, quarter and three quarter turns.</i>

Time – 1 week	
<u>White Rose Small Steps</u> • Before and after • Dates • Time to the hour • Time to the half hour • Writing time • Comparing time	<u>National curriculum objectives</u> ○ <i>compare, describe and solve practical problems for: time [for example, quicker, slower, earlier, later]</i> ○ <i>measure and begin to record the following: time (hours, minutes, seconds)</i> ○ <i>sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</i> ○ <i>recognise and use language relating to dates, including days of the week, weeks, months and years</i> ○ <i>tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</i>

Geometry – properties of shape 1 week	
<u>White Rose Small Steps</u> • 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	<u>National curriculum objectives</u> ○ <i>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].</i>

Measurement – length and height – 1 week	
<u>White Rose Small Steps</u> • Compare lengths and heights • Measure length (1) • Measure length (2)	<u>National curriculum objectives</u> ○ <i>compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]</i> <i>mass/weight [for example, heavy/light, heavier than, lighter than]</i> <i>capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</i> <i>time [for example, quicker, slower, earlier, later]</i> ○ <i>measure and begin to record the following:</i> <i>lengths and heights</i> <i>mass/weight</i> <i>capacity and volume time (hours, minutes, seconds)</i>
Measurement – weight and volume – 1 week	
<u>White Rose Small Steps</u> • Introduce weight and mass • Measure mass • Compare mass • Introduce capacity and volume • Measure capacity • Compare capacity	<u>National curriculum objectives</u> ○ <i>compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]</i> <i>mass/weight [for example, heavy/light, heavier than, lighter than]</i> <i>capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</i> <i>time [for example, quicker, slower, earlier, later]</i> ○ <i>measure and begin to record the following:</i> <i>lengths and heights</i> <i>mass/weight</i> <i>capacity and volume</i> <i>time (hours, minutes, seconds)</i>

