

Autumn 1

Unit 1: Numbers to 100 (10 textbook lessons)

Skills focus:

- Read, write, represent and partition numbers to 100
- Count forwards and backwards in ones, twos, fives and tens
- Compare and order numbers
- Identify one more/less and ten more/less
- Use place value to solve problems

Key vocabulary:

hundred, tens, ones, digit, numeral place value, partition, compare, order, greater than, less than, equal to, ascending, descending

Sentence stems:

___ is made of ___ tens and ___ ones
 ___ is greater than ___ because...
 Ten more than ___ is ___
 I know because...

Unit 2: Addition and subtraction (1) (12 textbook lessons)

Skills focus:

- Add and subtract two-digit numbers using efficient strategies
- Use number bonds and known facts
- Solve one-step problems
- Recognise the inverse relationship between addition and subtraction

Key vocabulary:

add, subtract, sum, total, difference, exchange, partition, inverse, calculation, number sentence, regroup

Sentence stems:

I partitioned...
 I know my answer is correct because...
 I checked using the inverse.

Possible resources:

Dienes
 Place value counters
 Base Ten
 Bead strings
 Numicon
 Hundred squares
 Number lines

Possible misconceptions:

- Reversing the digits (53/35)
- Believing the largest digit determines the largest number
- Difficulty portioning numbers
- Confusing ten more with one more

Possible resources:

Place value counters
 Dienes tens and ones
 Number lines
 Bead strings
 Bar models
 Numicon
 Part-whole models

Possible misconceptions:

- Counting all instead of counting on
- Misaligning place value
- Assuming subtraction always means take away

Strengthening:

- Recap numbers to 50 first
- Build numbers using concrete resources
- Use place value charts to partition numbers
- Practice counting in tens from different starting points

Deepening:

- Explain why one number is greater than another
- Complete missing number sequences
- Solve reasoning problems
- Explain patterns on a hundred square

Strengthening:

- Use concrete resources
- Partition numbers before calculating
- Begin with multiples of 10
- Heavy modelling with resources

Deepening:

- Compare calculation strategies
- Explain why one method is more efficient
- Investigate missing digit problems

Ready to Progress Link:

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.

Ready to Progress Link:

2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice.
 2AS–1 Add and subtract across 10.

Autumn 2					
Unit 4: Money (9 textbook lessons)		Unit 5: Multiplication and division (1) (9 textbook lessons)		MOVED Unit 3: Addition and subtraction (2) (9 textbook lessons)	
Skills focus: -Recognise and use pounds and pence -Count mixed coins to find totals and change -Compare amounts -Solve practical money problems Key vocabulary: pounds, pence, coin, note, value, amount, total, change, cost, more, less, equal Sentence stems: The total is... I know because... Another way to make this amount is... The change is...		Skills focus: -Recall and use multiplication and division facts for 2, 5 and 10 times tables -Recognise, make and describe equal groups -Represent multiplication using arrays and repeated addition -Understand division as sharing and grouping -Recognise the inverse relationship between multiplication and division Key vocabulary: multiply, multiplication, equal groups, factor, product, repeated addition, arrays, rows, columns, divide, division, share, grouping, groups of, altogether Sentence stems: ___ groups of ___ equals ___ The array shows... I know because each group is equal. I shared equally so each group has ___ I checked my answer using the inverse.		Skills focus: -Add and subtract two two-digit numbers using efficient strategies -Use number bonds and known facts -Solve one-step problems -Recognise the inverse relationship between addition and subtraction -Exchanging where necessary Key vocabulary: add, subtract, sum, total, difference, exchange, partition, inverse, calculation, number sentence, regroup Sentence stems: I partitioned... I know my answer is correct because... I checked using the inverse.	
Possible resources: Coins and notes Role play shop Price labels Hundred squares Place value counters	Possible misconceptions: -Counting the number of coins instead of their value -Believing larger coins are worth more -Confusing pounds and pence	Possible resources: Counters Cubes Arrays Numicon Multiplication grids Place value counters Bead strings	Possible misconceptions: -Confusing equal and unequal groups -Counting individual objects instead of groups -Sharing objects unequally -Confusing sharing with grouping	Possible resources: Place value counters Dienes tens and ones Number lines Bead strings Bar models Numicon Part-whole models	Possible misconceptions: -Counting all instead of counting on -Misaligning place value -Assuming subtraction always means take away
Strengthening: -Begin with identical coins before introducing mixed -Match coins to their value -Count in ones, twos, fives and tens using coins	Deepening: -Find multiple ways to make the same amount -Calculate simple change -Explain why one combination is more efficient	Strengthening: -Use concrete resources -Build arrays with counters -Revisit counting in 2s, 5s and 10s -Share between two groups first	Deepening: -Find different arrays for the same product -Explain commutativity -Solve reasoning problems -Explain the relationship between multiplication and division	Strengthening: -Use concrete resources -Partition numbers before calculating -Begin with multiples of 10 -Heavy modelling with resources	Deepening: -Compare calculation strategies -Explain why one method is more efficient -Investigate missing digit problems
Ready to Progress Link:		Ready to Progress Link: 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).		Ready to Progress Link: 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.	

Spring 1					
Unit 6: Multiplication and division (2) (9 textbook lessons)		Unit 7: Statistics (7 textbook lessons)		Unit 8: Length and height (5 textbook lessons)	
Skills focus: -Recall and use multiplication and division facts for 2, 5 and 10 times tables -Recognise, make and describe equal groups -Represent multiplication using arrays and repeated addition -Understand division as sharing and grouping -Recognise the inverse relationship between multiplication and division Key vocabulary: multiply, multiplication, equal groups, factor, product, repeated addition, arrays, rows, columns, divide, division, share, grouping, groups of, altogether Sentence stems: ____ groups of ____ equals ____ The array shows... I know because each group is equal. I shared equally so each group has ____ I checked my answer using the inverse.		Skills focus: -Interpret and construct simple pictograms, tally charts, block diagrams and tables -Ask and answer questions about data -Compare quantities using information presented in charts Key vocabulary: data, tally, chart, table, pictogram, block diagram, most, least, altogether, compare, category, represent, information Sentence stems: The chart shows... The most common is... The least common is... I know this because the data shows...		Skills focus: -Measure, compare and order lengths and heights using metres and centimetres -Choose appropriate measuring equipment -Solve simple measurement problems Key vocabulary: length, height, measure, centimetre (cm), metre (m), longer, shorter, tallest, shortest, compare, estimate Sentence stems: The length is... ____ is longer than ____ ____ is shorter than ____ I measured from zero because...	
Possible resources: Counters Cubes Arrays Numicon Multiplication grids Place value counters Bead strings		Possible resources: Tally charts Pictograms Cubes Counters Class surveys Sorting objects		Possible resources: Rulers Metre sticks Tape measures Cubes String Classroom objects	
Possible misconceptions: -Confusing equal and unequal groups -Counting individual objects instead of groups -Sharing objects unequally -Confusing sharing with grouping		Possible misconceptions: -Counting symbols instead of values -Misreading the scales -Not referring to the data -Confusing the largest picture with the greatest value		Possible misconceptions: -Measuring from the edge of the ruler instead of zero -Leaving gaps between units -Confusing length with height -Reading scales inaccurately	
Strengthening: -Use concrete resources -Build arrays with counters -Revisit counting in 2s, 5s and 10s -Share between two groups first		Strengthening: -Collect practical data first -Use and move real objects -Begin with one-to-one correspondence before introducing scaled pictograms -Model reading charts		Strengthening: -Use non-standard units first -Model accurate measuring from zero -Compare objects directly before measuring	
Deepening: -Find different arrays for the same product -Explain commutativity -Solve reasoning problems -Explain the relationship between multiplication and division		Deepening: -Ask questions about the data -Explain conclusions -Predict outcomes -Identify mistakes and justify answers		Deepening: -Solve comparison problems -Explain measuring methods -Identify and correct measuring errors	
Ready to Progress Link: 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)..		Ready to Progress Link:		Ready to Progress Link:	

Spring 2			
Unit 9: Properties of shapes (12 textbook lessons)		Unit 10: Fractions (14 textbook lessons)	
Skills focus: -Identify, describe and compare the properties of 2D and 3D shapes -Count sides, vertices, faces and edges -Sort shapes using different criteria -Recognise lines of symmetry in simple shapes Key vocabulary: 2D, 3D, side, edge, face, vertex, corner, sort, symmetry, circle, triangle, square, rectangle, pentagon, hexagon, cube, cuboid, sphere, cylinder, cone, prism Sentence stems: I know this is a ____ because... This shape has... It belongs in this group because...		Skills focus: -Recognise, find, name and write $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of shapes, objects and quantities -Recognise equivalence between $\frac{2}{4}$ and $\frac{1}{2}$ -Count in fractions -Solve simple fraction problems Key vocabulary: fraction, whole, equal parts, half, quarter, third, numerator, denominator, equivalent, equal, share Sentence stems: The whole has been divided into... The denominator tells us... The numerator tells us... These fractions are equivalent because...	
Possible resources: Shapes Pattern blocks Mirrors Sorting hoops Construction materials		Possible misconceptions: -Confusing faces and edges -Believing orientation changes the shape -Thinking that all triangles look the same -Confusing 2D and 3D shapes	
Possible resources: Fraction strips Fraction circles Counters Cubes Paper folding Bar models		Possible misconceptions: -Parts do not have to be equal -Larger denominator means larger fraction -Confusing numerator and denominator	
Strengthening: -Handle physical shapes -Compare one property at a time -Introduce one family of shapes before sorting		Deepening: -Sort using multiple criteria -Explain why a shape belongs to more than one group -Investigate patterns between shapes	
Strengthening: -Revisit halves and quarters from Year 1 -Fold shapes practically -Use concrete resources for sharing equally -Use fraction strips to show equivalence		Deepening: -Explain why fractions are equivalent -Match fractions to representations -Count in halves, quarters and thirds	
Ready to Progress Link: 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.		Ready to Progress Link:	

Summer 1					
Unit 11: Position and direction (4 textbook lessons)		Unit 12: Problem solving and efficient methods (12 textbook lessons)		Unit 13: Time (9 textbook lessons)	
Skills focus: -Describe movement and position using mathematical vocabulary -Describe movement in a straight line -Describe and make quarter, half and three-quarter turns -Distinguish between clockwise and anticlockwise turns -Create and continue patterns using shapes Key vocabulary: Position, direction, movement, forwards, backwards, left, right, clockwise, anticlockwise, turn, quarter turn, half turn, three-quarter turn, right angle, straight line, pattern, sequence Sentence stems: The object moved... It made a ___ turn The next shape in the pattern is ___ because...		Skills focus: -Use place value and known number facts to solve problems -Apply efficient mental addition and subtraction strategies -Use the inverse relationship (addition and subtraction) -Solve missing number problems -Apply multiplication and division facts -Select an appropriate method and explain reasoning Key vocabulary: Method, strategy, mental, calculation, inverse, related fact, equivalent, addition, subtractions, multiplication, division, estimate, check, efficient Sentence stems: I chose this method because... My method is efficient because... I know ___ because I already know ___ I checked my answer using...		Skills focus: -Tell and write the time to the hour, half hour, quarter hour and five minutes -Read analogue clocks -Understand the relationship between minutes and hours -Know the number of hours in a day -Compare and sequence durations -Find start and end times Key vocabulary: time, clock, hour, minutes, half, quarter, interval, analogue, digital, duration, start, beginning, end, finish, day, length Sentence stems: A half is one of two equal parts A quarter is one of four equal parts These parts are equal because...	
Possible resources: Floor grids/maps Arrows Directional cards Bee-Bots Toy cars Squared paper Shapes	Possible misconceptions: -Confusing clockwise and anticlockwise -Confusing left and right -Thinking that turning also means moving forward	Possible resources: 100 squares Number lines Place value charts Dienes Part-whole models Multiplication grids Rekenreks Place value counters	Possible misconceptions: -Choosing an inefficient method -Relying on counting in ones -Misunderstanding the inverse relationship -Assuming there is only one correct method -Difficulty recognising equivalent calculations	Possible resources: Teaching clocks Clocks Number lines Timelines Calendars Visual timetables Analogue and digital clock cards	Possible misconceptions: -Reading the wrong hand -Confusing quarter past and quarter to -Counting the numbers on the clock rather than the five-minute intervals -Thinking 60mins = 60 hours
Strengthening: -Use children's bodies to practice movement first -Start with movement before rotation -Use one-step instructions before sequences -Make movement visible with arrows and maps	Deepening: -Give a sequence of instructions for another person to follow -Find different routes to the same destination -Create a pattern and describe the rule	Strengthening: -Use concrete resources -Use smaller numbers first -Revisit known number facts and number bonds -Use a 100 square or number line to make patterns visible	Deepening: -Explain whether sharing is fair -Investigate different ways to group the same quantity -Solve reasoning problems involving sharing	Strengthening: -Revisit o'clock and half past first -Use physical clocks -Count around the clock in fives -Use familiar routines to give meaning to time	Deepening: -Calculate start and end times -Solve duration problems that cross the hour -Identify errors and explain the mistake
Ready to Progress Link:		Ready to Progress Link: 2AS–4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers. 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).		Ready to Progress Link:	

Unit 14: Weight, volume and temperature (10 textbook lessons)

Skills focus:

- Compare and order mass, volume and capacity
- Measure mass in grams and kilograms
- Measure volume/capacity in millilitres and litres
- Read and use thermometers
- Estimate and measure accurately
- Choose appropriate standard units
- Record comparisons using mathematical symbols

Key vocabulary:

mass, weight, heavy, light, gram, kilogram, volume, capacity, millilitre, litre, temperature, degrees, Celsius, thermometer, estimate, measure, compare, order

Sentence stems:

I would measure this in ____ because...

____ is greater than ____ because...

The mass/capacity/temperate is...

Possible resources:

Balance scales
Weighing objects
Measuring jugs
Containers and water
Thermometers
Classroom objects

Possible misconceptions:

- Thinking a larger object must have a greater mass
- Confusing volume and capacity
- Reading the scales from the wrong point
- Confusing g/kg and ml/l

Strengthening:

- Start with direct comparisons
- Handle and physically compare measurements
- Estimate before measuring

Deepening:

- Choose the most appropriate unit for a measurement
- Identify and correct inaccurate measurements
- Solve practical problems

Ready to Progress Link:

Time for catch ups
/recapping
/SATs