

Term: Autumn Maths Medium Term Plan		
NC Objectives	Key Knowledge	Vocabulary
<p>EYFS</p> <p>Talk about measure and pattern</p> <ul style="list-style-type: none"> • Compare size • Compare mass • Compare capacity • Explore simple patterns • Copy and continue simple patterns • Create simple patterns <p>It's me 1, 2, 3</p> <ul style="list-style-type: none"> • Find 1, 2 and 3 • Subitise 1, 2 and 3 • Represent 1, 2 and 3 • 1 more Step 5 1 less • Composition of 1, 2 and 3 <p>Circles and Triangles</p> <ul style="list-style-type: none"> • Identify and name circles and triangles • Compare circles and triangles • Shapes in the environment • Describe position 	<ul style="list-style-type: none"> • Explores differences in size, length, weight and capacity • In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items • Explores and adds to simple linear patterns of two or three repeating items • Joins in with simple patterns in sounds, objects, games and stories, dance and movement, prediction what comes next • Creates their own spatial patterns showing some organisation or regularity <ul style="list-style-type: none"> • Count objects, actions and sounds. Link the number symbol (numeral) with its cardinal number value. • Links numerals with amounts up to 5 and maybe beyond. <ul style="list-style-type: none"> • Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language. • Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes. 	<p>Number Zero, number, one, two, three ... to twenty and beyond, teens numbers, eleven, twelve ... twenty, none, how many ...? count, count (up) to, count on (from, to), count back (from, to) Count in ones, is the same as, more, less, odd, even, few, pattern, pair</p> <p>Place value Ones, tens, digit, the same number as, as many as, more, larger, bigger, greater, fewer, smaller, less, fewest, smallest, least, most, biggest, largest, greatest, one more, ten more one less, ten less, compare, order, size, first, second, third...twentieth, last, last but one before, after, next, between</p> <p>Addition and subtraction add, more, and, make, sum, total, altogether double, one more, two more ... ten more how many more to make ...? how many more is ... than ...? how much more is ...? take away how many are left/left over? how many have gone? one less, two less, ten less ... how many fewer is ... than ...? how much less is ...? difference between</p> <p>Multiplication and division Sharing, doubling, halving, number patterns</p> <p>MEASUREMENT Measure, size, compare, guess, estimate, enough, not enough, too much, too little too many, too few, nearly, close to, about the same as, just over, just under</p> <p>Length</p>

1,2,3,4,5

- Find 4 and 5
- Subitise 4 and 5 Step 3
- Represent 4 and 5
- 1 more
- 1 less
- Composition of 4 and 5
- Composition of 1–5

Shapes with 4 sides

- Identify and name shapes with 4 sides
- Combine shapes with 4 sides
- Shapes in the environment
- My day and night

- Link the number symbol (numeral) with its cardinal number value.
- Points or touches (tags) each item, saying one number for each item, using the stable order of 1, 2, 3, 4, 5.

- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language.
- Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes.

Metre, length, height, width, depth, long, short, tall, high, low, wide, narrow, thick, thin longer, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so on, far, near, close

Weight

weigh, weighs, balances, heavy, light, heavier than, lighter than, heaviest, lightest, scales

Capacity and volume

Full, empty, half full, holds, container,

Time

Time, days of the week, Monday, Tuesday ... day, week, birthday, holiday, morning, afternoon, evening, night, bedtime, dinner time, playtime, today, yesterday, tomorrow before, after, next, last, now, soon, early, late quick, quicker, quickest, quickly, slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, takes longer, takes less time, hour, o'clock, clock, watch, hands

Money

Money, coin, penny, pence, pound, price, cost buy, sell, spend, spent, pay

Properties of shape

shape, pattern, flat, curved, straight, round hollow, solid, sort, make, build, draw, size, bigger, larger, smaller, symmetrical, pattern, repeating pattern, match

2-D shape

corner, side, rectangle (including square) circle, triangle

3-D shape

face, edge, vertex, vertices, cube, pyramid sphere, cone

Position and direction

Position, over, under, above, below, top, bottom, side, on, in, outside, inside, around

in front, behind, front, back, beside, next to opposite, apart, between, middle, edge, corner, direction, left, right, up, down, forwards, backwards, sideways, across, next to, close, near, far, along, through, to, from, towards, away from, movement, slide, roll, turn, stretch, bend, whole turn, half turn

STATISTICS

count, sort, group, set, list

GENERAL

Pattern, puzzle, what could we try next? how did you work it out? Recognise, describe draw,

Year 1

Place Value (within 10)

- Sort objects
- Count objects
- Count objects from a larger group
- Represent objects
- Recognise numbers as words
- Count on from any number
- 1 more
- Count backwards within 10
- 1 less
- Compare groups by matching
- Fewer, more, same
- Less than, greater than, equal to
- Compare numbers
- Order objects and numbers
- Use a number line

- 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
- Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number
- 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, 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 1-digit and 2-digit numbers to 20, including zero

Ones, tens, digit, the same number as, as many as, more, larger, bigger, greater, fewer, smaller, less, fewest, smallest, least, most, biggest, largest, greatest, one more, ten more one less, ten less, equal to, one more, ten more, one less, ten less, compare order, size, first, second, third... twentieth last, last but one before, after next between half-way between above, below

Addition and Subtraction (within 10)

- Introduce parts and wholes
- Part-whole model
- Write number sentences
- Fact families – addition facts
- Number bonds within 10
- Addition – add together
- Addition – add more
- Addition problems
- Find a part
- Subtraction – find a part
- Fact families – the eight facts
- Subtraction – take away/cross out (How many left)
- Subtraction on a number line
- Add or subtract 1 or 2

Shape

- Recognise and name 3-D shapes
- Sort 3-D shapes
- Recognise and name 2-D shapes
- Sort 2-D shapes
- Patterns with 2-D and 3-D shapes

- 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]

Addition, add, more, and make, sum, total, plus, altogether, double, near double, half, halve, one more, two more ... ten more, how many more to make ...? how many more is ... than ...? how much more is ...? Subtract, take away, how many are left/left over? how many have gone? one less, two less, ten less ..., how many fewer is ... than ...? how much less is ...? difference between, equals, is the same as, number bonds/pairs, missing number

shape, pattern, flat, curved, straight, round, hollow, solid, sort, make, build, draw, size, bigger, larger, smaller, symmetry, symmetrical, symmetrical pattern, pattern, repeating pattern, match1
2-D shape, corner, side, point, pointed, rectangle (including square)
Circle, triangle,
3-D shape, face, edge, vertex, vertices, cube, cuboid
Pyramid, sphere, cone, cylinder

Year 2

Place Value

- Numbers to 20
- Count objects to 100 by making 10s
- Recognise tens and ones
- Use a place value chart
- Partition numbers to 100

- Read and write numbers from 1 to 20 in numerals and words (Y1)
- Read and write numbers to at least 100 in numerals and in words
- Read and write numbers to at least 100 in numerals and in words

Number, numeral, zero, one, two, three ... twenty, teens numbers, eleven, twelve ... twenty, twenty-one, twenty-two ... one hundred, two, hundred ... one thousand None, how many ...? count, count (up) to, count on (from, to), count back (from, to) Forwards, backwards, count, in, ones, twos,

- Write numbers to 100 in words
- Flexibly partition numbers to 100
- Write numbers to 100 in expanded form
- 10s on the number line to 100
- 10s and 1s on the number line to 100
- Estimate numbers on a number line
- Compare objects
- Compare numbers
- Order objects and numbers
- Count in 2s, 5s and 10s
- Count in 3s

Addition and Subtraction

- Apply number bonds within 10
- Add and subtract 1s
- Add and subtract 10s
- Add and subtract 100s
- Spot the pattern
- Add 1s across a 10
- Add 10s across a 100
- Subtract 1s across a 10
- Subtract 10s across a 100
- Make connections
- Add two numbers (no exchange)
- Subtract two numbers (no exchange)
- Add two numbers (across a 10)
- Add two numbers (across a 100)
- Subtract two numbers (across a 10)
- Subtract two numbers (across a 100)

- Identify, represent and estimate numbers using different representations, including the number line
- Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward
- Read and write numbers to at least 100 in numerals and in words
- Identify, represent and estimate numbers using different representations, including the number line
- Recognise the place value of each digit in a 2-digit number (tens, ones)
- Compare and order numbers from 0 up to 100; use and = signs

- Add and subtract numbers mentally, including:
 - a 3-digit number and ones
 - a 3-digit number and tens
 - a 3-digit number and hundreds
- Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
- Estimate the answer to a calculation and use inverse operations to check answers

fives, tens, threes, fours, and so on
 equal to, equivalent to, is the same as
 more, less, most, least, tally, many
 odd, even, multiple of, sequence
 continue, predict, few, pattern, pair, rule, >
 greater than, < less than, ones
 tens, hundreds, digit, one-, two- or, three-digit
 number, place, place value
 stands for, represents, regroup, the same
 number as, as many as, more, larger, bigger,
 greater, fewer, smaller, less, fewest, smallest,
 least, most, biggest, largest, greatest, one
 more, ten more, one less, ten less, equal to
 compare, order, size, first, second,
 third, ... twentieth, twenty--first, twenty-
 -second ... last, last but one, before, after,
 next, between, halfway between
 above, below

addition add, more, and make, sum, total
 altogether double near double half, halve
 one more, two more ... ten more ... one
 hundred more how many more to make ...?
 how many more is ... than ...? how much more
 is ...? Subtract take away how many are
 left/left over? how many have gone?
 one less, two less, ten less ... one hundred
 less how many fewer is ... than ...? how much
 less is ...? difference between equals is the
 same as number bonds/pairs/facts tens

<p>Multiplication and Division</p> <ul style="list-style-type: none"> • Multiplication – equal groups • Use arrays • Multiples of 2 • Multiples of 5 and 10 • Sharing and grouping • Multiply by 3 • Divide by 3 • The 3 times-table • Multiply by 4 • Divide by 4 • The 4 times-table • Multiply by 8 • Divide by 8 • The 8 times-table • The 2, 4 and 8 times-tables 	<ul style="list-style-type: none"> • Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods • Show that multiplication of two numbers can be done in any order (commutative) and division on one number by another cannot • Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward (Y2) • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables 	<p>multiply multiplied by multiple groups of times once, twice, three times ... ten times repeated addition division dividing, divide, divided by, divided into grouping sharing, share, share equally left, left over one each, two each, three each ... ten each group in pairs, threes ... tens equal groups of doubling halving array row, column number patterns multiplication table multiplication fact, division fact</p>
<p>Year 3</p> <p>Place Value</p> <ul style="list-style-type: none"> • Represent numbers to 100 • Partition numbers to 100 • Number line to 100 • Hundreds • Represent numbers to 1,000 • Partition numbers to 1,000 • Flexible partitioning of numbers to 1,000 • Hundreds, tens and ones • Find 1, 10 or 100 more or less • Number line to 1,000 • Estimate on a number line to 1,000 • Compare numbers to 1,000 • Order numbers to 1,000 • Count in 50s 	<ul style="list-style-type: none"> • Identify, represent and estimate numbers using different representations • Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones) • Count from zero in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • Read and write numbers up to 1,000 in numerals and words • Compare and order numbers up to 1,000 	<p>Number, numeral, zero, one, two, three ... twenty, teens numbers, eleven, twelve ... twenty, twenty-one, twenty-two ... one hundred, two, hundred ... one thousand, none how many ...? count, count (up) to, count on (from, to), count back (from, to) forwards backwards, count, in, ones, twos, fives, tens, threes, fours, eights, fifties and so on to hundreds, equal to, equivalent to, is the same as, more, less, most, least, tally, many, odd, even, multiple of, factor of, sequence continue, predict, few, pattern, pair, rule relationship, > greater than, < less than, ones tens, hundreds, digit, one-, two- or three-digit number, place, place value, stands for, represents, exchange, the same number as, as many as, more, larger, bigger, greater</p>

Addition and Subtraction

- Apply number bonds within 10
- Add and subtract 1s
- Add and subtract 10s
- Add and subtract 100s
- Spot the pattern
- Add 1s across a 10
- Add 10s across a 100
- Subtract 1s across a 10
- Subtract 10s across a 100
- Make connections
- Add two numbers (no exchange)
- Subtract two numbers (no exchange)
- Add two numbers (across a 10)
- Add two numbers (across a 100)
- Subtract two numbers (across a 10)
- Subtract two numbers (across a 100)
- Add 2-digit and 3-digit numbers
- Subtract a 2-digit number from a 3-digit number
- Complements to 100
- Estimate answers
- Inverse operations
- Make decisions

Multiplication and Division

- Multiplication – equal groups
- Use arrays
- Multiples of 2
- Multiples of 5 and 10
- Sharing and grouping
- Multiply by 3
- Divide by 3
- The 3 times-table
- Multiply by 4
- Divide by 4

- Add and subtract numbers mentally, including:
 - a 3-digit number and ones
 - a 3-digit number and tens
 - a 3-digit number and hundreds
- Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
- Estimate the answer to a calculation and use inverse operations to check answers

- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods
- Show that multiplication of two numbers can be done in any order (commutative) and division on one number by another cannot

fewer, smaller, less, fewest, smallest, least most, biggest, largest, greatest, one more, ten more, one hundred more, one less, ten less, one hundred less, equal to, compare, order, size, first, second, third, ... twentieth, twenty-first, twenty-second, last, last but one before, after next between halfway between above, below
addition add, more, and make, sum, total altogether double near double half, halve one more, two more ... ten more ... one hundred more how many more to make ...? how many more is ... than ...? how much more is ...? Subtract take away how many are left/left over? how many have gone?
one less, two less, ten less ... one hundred less how many fewer is ... than ...? how much less is ...? difference between equals is the same as number bonds/pairs/facts tens

Multiplication, multiply, multiplied by, multiple, factor, groups of, times, product once, twice, three times ... ten times, repeated addition, division, dividing, divide, divided by, divided into, left, left over, remainder, grouping, sharing, share, share equally, one each, two each, three each ... ten each, group in pairs, threes ... tens, equal groups of, doubling, halving, array, row, column, number patterns, multiplication table multiplication fact, division fact

<ul style="list-style-type: none"> • The 4 times-table • Multiply by 8 • Divide by 8 • The 8 times-table • The 2, 4 and 8 times-tables 	<ul style="list-style-type: none"> • Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward (Y2) • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers (Y2) • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables 	
<p>Year 4 Place Value</p> <ul style="list-style-type: none"> • Represent numbers to 1,000 • Partition numbers to 1,000 • Number line to 1,000 • Thousands • Represent numbers to 10,000 • Partition numbers to 10,000 • Flexible partitioning of numbers to 10,000 • Find 1, 10, 100, 1,000 more or less • Number line to 10,000 • Estimate on a number line to 10,000 • Compare numbers to 10,000 • Order numbers to 10,000 • Roman numerals Step 14 Round to the nearest 10 • Round to the nearest 100 • Round to the nearest 1 • Round to the nearest 10, 100 or 1,000 	<ul style="list-style-type: none"> • Read and write numbers up to 1,000 in numerals and words (Y3) • Identify, represent and estimate numbers using different representations • Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones) (Y3) • Count in multiples of 6, 7, 9, 25 and 1,00 • Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens and ones) • Identify, represent and estimate numbers using different representations • Order and compare numbers beyond 1,000 • Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value • Round any number to the nearest 10, 100 or 1,000 	<p>Ones, tens, hundreds, digit, one-, two- or three-digit number, place, place value, stands for, represents, exchange the same number as, as many as more, larger, bigger, greater, fewer, smaller, less, fewest, smallest, least most, biggest, largest, greatest one more, ten more, one hundred more, one thousand more, one less, ten less, one hundred less, one thousand less, equal to, compare, order, size, first, second, third, twentieth, twenty--first, twenty--second last, last but on, before, after, next between, halfway between</p>

<p>Addition and Subtraction</p> <ul style="list-style-type: none"> • Add and subtract 1s, 10s, 100s and 1,000s • Add up to two 4-digit numbers – no exchange • Add two 4-digit numbers – one exchange • Add two 4-digit numbers – more than one exchange • Subtract two 4-digit numbers – no exchange • Subtract two 4-digit numbers – one exchange • Subtract two 4-digit numbers – more than one exchange • Efficient subtraction • Checking strategies <p>Area</p> <ul style="list-style-type: none"> • What is area? • Count squares • Make shapes • Compare areas <p>Multiplication and Division</p> <ul style="list-style-type: none"> • Multiples of 3 • Multiply and divide by 6 • 6 times-table and division facts • Multiply and divide by 9 • 9 times-table and division facts • The 3, 6 and 9 times-tables • Multiply and divide by 7 • 7 times-table and division facts • 11 times-table and division facts • 12 times-table and division facts • Multiply by 1 and 0 • Divide a number by 1 and itself • Multiply three numbers 	<ul style="list-style-type: none"> • Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why • Estimate and use inverse operations to check answers to a calculation <ul style="list-style-type: none"> • Find the area of rectilinear shapes by counting squares <ul style="list-style-type: none"> • Recall multiplication and division facts for multiplication tables up to 12×12 • Recognise and use factor pairs and commutativity in mental calculations • Count in multiples of 6, 7, 9, 25 and 1,000 • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers 	<p>add, more, and, make, sum, total, altogether, double, near double half, halve, one more, two more... ten more... one, hundred more how many more to make ...? how many more is ... than ...? how much more is ...? Subtract, take away, how many are left/left over? how many have gone? one less, two less, ten less ... one hundred, less, how many fewer is ... than ...? how much less is ...?</p> <p>edge, perimeter, area, covers, square, centimetre (cm²), ruler, metre stick, tape measure, measure, measurement, size, compare, unit, standard unit, metric unit</p> <p>Multiplication, multiply, multiplied by multiple, factor, groups of, times product, once, twice, three times ... ten times, repeated addition, division dividing, divide, divided by, divided into left, left over, remainder, grouping sharing, share, share equally, one each, two each, three each ... ten each group in pairs, threes ... tens, equal groups of, doubling, halving, array row, column, number patterns multiplication table, multiplication fact, division fact, inverse, square, squared cube, cubed</p>
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Year 5**Place Value**

- Roman numerals to 1,000
- Numbers to 10,000
- Numbers to 100,000 Step 4 Numbers to 1,000,000
- Read and write numbers to 1,000,000
- Powers of 10
- 10/100/1,000/10,000/100,000 more or less
- Partition numbers to 1,000,000
- Number line to 1,000,000
- Compare and order numbers to 100,000
- Compare and order numbers to 1,000,000
- Round to the nearest 10, 100 or 1,000
- Round within 100,000
- Round within 1,000,000

Addition and Subtraction

- Mental strategies
- Add whole numbers with more than four
- Subtract whole numbers with more than four digits
- Round to check answers
- Inverse operations (addition and subtraction)
- Multi-step addition and subtraction problems
- Compare calculations
- Find missing numbers

- Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals
- Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit
- Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000
- Solve number problems and practical problems involving the above
- Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000

- Add and subtract numbers mentally with increasingly large numbers
- Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction)
- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

forwards, backwards, count in ones, twos, fives, tens, threes, fours, eights, fifties, sixes, sevens, nines, twenty--fives, and so on to hundreds, thousands equal to equivalent to, is the same as, more, less, most, least tally, many, odd, even, multiple of, factor of, factor pair, sequence, continue, predict, few, pattern, pair, rule, relationship, Ones, tens, hundreds, digit, one-, two- or three-digit number, place, place value, stands for, represents, exchange the same number as, as many as more, larger, bigger, greater, fewer, smaller, less, fewest, smallest, least most, biggest, largest, greatest one more, ten more, one hundred more, one, thousand more, one less, ten less, one hundred less, one thousand less, equal to, compare, order, size, first, second, third, twentieth, twenty--first, twenty--second last, last but on, before, after, next between, halfway between

add, more, and make, sum, total altogether, double, near double half, halve, one more, two more ... ten more ... one, hundred more how many more to make ...? how many more is ... than ...? how much more is ...? Subtract, take away, how many are left/left over? how many have gone? one less, two less, ten less ... one hundred less how many fewer is ... than ...?

<p>Multiplication and Division</p> <ul style="list-style-type: none"> • Multiples • Common multiples • Factors • Common factors • Prime numbers • Square numbers • Cube numbers • Multiply by 10, 100 and 1,000 • Divide by 10, 100 and 1,000 • Multiples of 10, 100 and 1,000 <p>Fractions</p> <ul style="list-style-type: none"> • Find fractions equivalent to a unit fraction • Find fractions equivalent to a non-unit fraction • Recognise equivalent fractions • Convert improper fractions to mixed numbers • Convert mixed numbers to improper fractions 	<ul style="list-style-type: none"> • Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers • Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes • Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • Establish whether a number up to 100 is prime and recall prime numbers up to 19 • Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 • Multiply and divide numbers mentally, drawing upon known facts • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • Recognise mixed numbers and improper fractions and convert from one form to 	<p>how much less is ...? difference between, equals, is the same as number bonds/pairs/facts, missing number, tens boundary, hundreds boundary, ones, boundary, tenths boundary inverse</p> <p>multiplication, multiply, multiplied by multiple, factor, groups of, times product, once, twice, three times ... ten times, repeated addition, division dividing, divide, divided by, divided into left, left over, remainder, grouping, sharing, share, share equally, one each, two each, three each ... ten each group in pairs, threes ... tens, equal groups of, doubling, halving, array row, column number patterns, multiplication table, multiplication fact, division fact, inverse, square, squared cube, cubed</p> <p>fraction, proper/improper fraction equivalent fraction, mixed number numerator, denominator equivalent, reduced to, cancel equal part, equal grouping, equal sharing, parts of a whole</p>
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<ul style="list-style-type: none"> • Compare fractions less than 1 • Order fractions less than 1 • Compare and order fractions greater than 1 • Add and subtract fractions with the same denominator • Add fractions within 1 • Add fractions with total greater than 1 • Add to a mixed number • Add two mixed numbers Step 14 Subtract fractions • Subtract from a mixed number • Subtract from a mixed number – breaking the whole • Subtract two mixed numbers 	<p>the other and write mathematical statements > 1 as a mixed number</p> <ul style="list-style-type: none"> • Compare and order fractions whose denominators are all multiples of the same number • Add and subtract fractions with the same denominator, and denominators that are multiples of the same number • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number 	<p>half, two halves, one of two equal parts quarter, two quarters, three quarters one of four equal parts, one third, two thirds, one of three equal parts sixths, sevenths, eighths, tenths ... hundredths, thousandths</p>
<p>Year 6 Place Value</p> <ul style="list-style-type: none"> • Numbers to 1,000,000 • Numbers to 10,000,000 • Read and write numbers to 10,000,000 • Powers of 10 • Number line to 10,000,000 • Compare and order any integers • Round any integer • Negative numbers 	<ul style="list-style-type: none"> • Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit • Solve number and practical problems that involve the above • Round any whole number to a required degree of accuracy • Use negative numbers in context, and calculate intervals across zero 	<p>Number, numeral, zero, one, two, three ... twenty, teens numbers, eleven, twelve ... twenty, twenty-one, twenty-two ... one hundred, two, hundred ... one thousand ... ten thousand, hundred thousand, million, none how many ...? count, count (up) to, count on (from, to) count back (from, to), forwards, backwards, count in ones, twos, fives, tens, threes, fours, eights, fifties, sixes, sevens, nines, twenty--fives, and so on to hundreds, thousands, equal to, equivalent to is the same as, more, less, most, least tally, many, odd, even, multiple of, factor of, factor pair, sequence, continue, predict, few, pattern, pair, rule, relationship, next, consecutive $>$ greater than, $<$ less than, \geq Greater than or equal to \leq less Than or equal to. Roman numerals integer, positive, negative, above/below zero, minus, negative numbers formula, divisibility, square number</p>

Addition, Subtraction, Multiplication and Division

- Add and subtract integers
- Common factors
- Common multiples
- Rules of divisibility
- Primes to 100
- Square and cube numbers
- Multiply up to a 4-digit number by a 2-digit number
- Solve problems with multiplication
- Short division
- Division using factors
- Solve problems with division
- Solve multi-step problems
- Order of operations
- Mental calculations
- Reason from known facts

- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
- Solve problems involving addition, subtraction, multiplication and division
- Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
- Identify common factors, common multiples and prime numbers
- Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication
- Perform mental calculations, including with mixed operations and large numbers
- Solve problems involving addition, subtraction, multiplication and division
- Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
- Use their knowledge of the order of operations to carry out calculations involving the four operations

prime number, factorise, prime factor ascending/descending order, digit total

add, more, and make, sum, total altogether, double, near double half, halve, one more, two more ... ten more ... one, hundred more
how many more to make ...?
how many more is ... than ...?
how much more is ...? Subtract, take away, how many are left/left over?
how many have gone? one less, two less, ten less ... one hundred less
how many fewer is ... than ...?
how much less is ...? difference between, equals, is the same as
number bonds/pairs/facts, missing number, tens boundary, hundreds boundary, ones, boundary, tenths boundary
inverse, multiplication, multiply, multiplied by multiple, factor, groups of, times
product, once, twice, three times ... ten times, repeated addition, division
dividing, divide, divided by, divided into left, left over, remainder, grouping, sharing, share, share equally, one each, two each, three each ... ten each
group in pairs, threes ... tens, equal groups of, doubling, halving, array
row, column number patterns, multiplication table, multiplication fact, division fact, inverse, square, squared
cube, cubed

<p>Fractions</p> <ul style="list-style-type: none"> • Equivalent fractions and simplifying • Equivalent fractions on a number line • Compare and order (denominator) • Compare and order (numerator) • Add and subtract simple fractions • Add and subtract any two fractions • Add mixed numbers • Subtract mixed numbers • Multi-step problems • Multiply fractions by integers • Multiply fractions by fractions • Divide a fraction by an integer • Divide any fraction by an integer • Mixed questions with fractions • Fraction of an amount • Fraction of an amount – find the whole <p>Converting Units</p> <ul style="list-style-type: none"> • Metric measures • Convert metric measures • Calculate with metric measures • Miles and kilometres • Imperial measures 	<ul style="list-style-type: none"> • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination • Compare and order fractions, including fractions > 1 • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • Identify common factors, common multiples and prime numbers • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Solve problems involving addition, subtraction, multiplication and division • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Y5) • Multiply simple pairs of proper fractions, writing the answer in its simplest form • Divide proper fractions by whole numbers • Associate a fraction with division and calculate decimal fraction equivalents <ul style="list-style-type: none"> • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate • Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places 	<p>fraction, proper/improper fraction, equivalent fraction, mixed number, numerator, denominator, equivalent, reduced to, cancel equal part, equal grouping, equal sharing parts of a whole, half, two halves, one of two equal parts, quarter, two quarters, three quarters, one of four equal parts, one third, two thirds, one of three equal parts, sixths, sevenths, eighths, tenths ... hundredths, thousandths, decimal, decimal fraction, decimal point, decimal place, decimal, equivalent, proportion, in every, for every ratio, percentage, per cent, %</p> <p>Convert, change, measure, estimate, miles, imperial, capacity, rectilinear, standard unit, and volume.</p>
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