Maths

Progression of Skills

Cramlington Village Primary School

Oracy and Vocabulary

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Sentence stems It is….(big) It is …(shape name)...because… It is the same/ different… It's the same number… We both have…. There is one more…./one less… I have more...because… Altogether I have…. ….is heavier than… ….is lighter than….	**Sentence stems** I know...because… ...is between/ after/ before….because… So then… The answer is… because… They are the same because… They are different because… They are alike because…	**Sentence stems** It started at 5 because the… and the …. are both… I jumped on/ up in ….because… This makes….so I…. So then I… because… I know because..	**Sentence stems** If you...then… First...After that… I know...because...and...are alike in that …. ….and….are similar because…	**Sentence stems** We know that...so/because…. It can't be….so/ because… So it must be...so/ because… I agree/ disagree with you because… A major difference between ...and...is that… Some ways in which ...and… differ are…. So….. as a result...	**Sentence stems** I think the question means...so the answer would be… I know that...therefore i would try out… If the...add up to… then the total number must be… Knowing this means we can work out what's missing! ...as a result.../...therefore… The reason….is that.../….is due to...	**Sentence stems** First i… Then...Next...Finally… I approached it methodically by… I was systematic…(when/ because_ I looked at the whole problem and broke it down into steps… We could possibly...or… So far I have discovered/ worked out that...
Vocabulary **Number and place value** 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, twos, fives, tens, is the same as, more, less, odd, even, few, pattern, pair, 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, Estimating, guess, how many ...?, estimate, nearly, close to, about the same as, just over, just under, too many, too few, enough, not enough **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, **Multiplication and division** Sharing, doubling, halving, number patterns, **Fractions,** parts of a whole Half, quarter, **Measurement,** measure	**Vocabulary** **Number and place value** Numeral, zero, one, two, three ... twenty, teens numbers, eleven, twelve ... twenty, twenty-one, twenty-two ...one hundred, none, how many ...? count, count (up) to, count on (from, to),, count back (from, to), forwards Backwards, count in ones, twos, fives, tens, equal to, equivalent to, is the same as, more, less, most, least, many, odd, even, multiple of, few, pattern, pair, 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 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, Estimating, guess, how many ...?, estimate, nearly, roughly, close to about the same as, just over, just under, too many, too few, enough, not enough **Addition and subtraction** Addition, add, more, and, make, sum, total, 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,	**Vocabulary** **Number and place value** Numeral, zero, one, two, three …,, twenty, teens numbers, eleven, twelve ... twenty, twenty-one, twenty-two …, one hundred, two, hundred ... one thousand, none, many ...? count, count (up) to, count on (from, to), count back (from, to), forwards, backwards, count in ones, twos, 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, Place value, 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 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, Estimating Guess, how many ...? estimate, nearly Roughly, close to, about the same as just over, just under, exact, exactly, too many, too few, enough, not enough **Addition and subtraction** 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 ...?	**Vocabulary** **Number and place value** 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, Roman numerals, Place value, 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 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, Estimating Guess, how many ...? estimate Nearly, roughly, close to, approximate, approximately, about the same as just over, just under, exact, exactly too many, too few, enough, not enough round, nearest, round to the nearest	**Vocabulary** **Number and place value** 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, sequence, continue, predict Few, pattern, pair, rule, relationship next, consecutive, > greater than < less than, Roman numerals, integer, positive, negative, above/below zero, minus, negative numbers, Place value 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 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 above, below, Estimating, guess how many, estimate, nearly	**Vocabulary** **Number and place value** 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 ≥ greater than or equal to ≤ less than or equal to, Roman numerals, integer, positive, negative,above/below zero, minus, negative numbers, formula, divisibility, square number, prime number, ascending/descending order, Place value, 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	**Vocabulary** **Number and place value** 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 ≥ greater than or equal to ≤ less than or equal to Roman numerals integer, positive, negative above/below zero, minus, negative, numbers, formula, divisibility, square number, prime number, factorise, prime factor, ascending/descending order digit total, Place value, 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,

,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, Length, 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, 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 **Geometry,**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	number bonds/pairs, missing number **Multiplication and division** Multiplication, multiply, multiplied by, multiple, division, dividing, grouping, sharing, doubling, halving, array, number patterns **Fractions** Fraction, equal part, equal grouping equal sharing, parts of a whole, half one of two equal parts, quarter, one of four equal parts **Measurement** Measure, measurement, size, compare guess, estimate, enough, not enough, too much, too little, too many, too few nearly, close to, about the same as Roughly, just over, just under, Length centimetre, 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, ruler, metre stick, Weight, kilogram, half kilogram weigh, weighs, balances, heavy, light heavier than, lighter than, heaviest, lightest, scales, Capacity and volume litre, half litre, capacity, volume Full, empty, more than, less than, half full, quarter full, holds, container Time, time, days of the week, Monday, Tuesday ...months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, month, year birthday, holiday, morning, afternoon, evening, night, bedtime, dinner time, playtime, today, yesterday, tomorrow before, after, earlier, later, next, first, last, midnight, date, now, soon, early, late, quick, quicker, quickest, quickly slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, takes longer, takes less time, how long ago? how long will it be to ...? how long will it take to ...? how often? always, never, often, sometimes, usually, once, twice hour, o'clock, half past, quarter past, quarter to, clock, clock face, watch, hands, hour hand, minute hand, hours, minutes, Money, money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear, costs more, cheap, costs less, cheaper, costs the same as, how much ...? how many ...? total **Geometry** Properties of shape, shape, pattern, flat, curved, straight, round, hollow, solid, sort, make, build, draw, Size, bigger, larger, smaller, symmetry, symmetrical, symmetrical pattern, pattern, repeating pattern, Match, 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, Position and direction,position, over, under, underneath, above, below, top, bottom, side, on, in, outside, inside, around, in front, behind, front, back, beside, next to, opposite, apart, between, middle, edge, centre, corner, direction, journey left, right, up, down, forwards,	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 boundary **Multiplication and division** Multiplication, 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 **Fractions** Fraction, equivalent fraction, mixed number, numerator, denominator, 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 **Measurement** Measure, measurement, size Compare, measuring scale, guess, estimate, enough, not enough too much, too little, too many, too few nearly, close to, about the same as, roughly, just over, just under, Length, centimetre, 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, further, furthest, near, close, ruler, metre stick, tape measure Weight, kilogram, half kilogram, gram weigh, weighs, balances, heavy, light heavier than, lighter than, heaviest, lightest, scales, Capacity and volume litre, half litre, millilitre, capacity, volume, full, empty, more than less than, half full, quarter full, holds, contains, container, Temperature, temperature, degree, Time Time, days of the week, Monday, Tuesday ...months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, fortnight, month, year birthday, holiday, morning, afternoon, evening, night, bedtime, dinnertime, playtime, today, yesterday, tomorrow before, after, earlier, later, next, first, last, midnight, date, now, soon, early, late, quick, quicker, quickest, quickly slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, takes longer, takes less time, how long ago? how long will it be to ...? how long will it take to ...? how often? always, never, often, sometimes Usually, once, twice, hour, o'clock, half past, quarter past, quarter to 5, 10, 15 ... minutes past, clock, clock face, watch, hands, digital/analogue	ten, hundred, round up, round down **Addition and subtraction** Addition add, more, and make, sum, tota, 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 **Multiplication and division** 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 **Fractions** Fraction, equivalent fraction, mixed number, numerator, denominator 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 **Measurement** Measure, measurement, size Compare, measuring scale, division guess, estimate, enough, not enough too much, too little, too many, too few nearly, close to, about the same as,, approximately, roughly, just over, just under, Length, millimetre, centimetre, metre, kilometre, mile, 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, further, furthest, near, close, distance apart ... between ... to ... from, perimeter, ruler, metre stick, tape measure, Weight, kilogram, half kilogram, gram, weigh, weighs, balances, heavy, light, heavier than, lighter than, heaviest, lightest, scales Capacity and volume, litre, half litre, millilitre, capacity, volume, full, empty, more than, less than, half full, quarter full, holds, contains, container **Temperature**, temperature , degree centigrade **Time** time, days of the week, Monday, Tuesday … months of the year (January, February ...) seasons: spring, summer, autumn, winter, day, week, weekend, fortnight, month, year, century, birthday, holiday	Roughly, close to, approximate,, approximately, about the same as just over, just under, exact, exactly too many, too few, enough, not enough round, nearest, round to the nearest, ten, hundred, thousand, round up, round down **Addition and subtraction** 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, missing number tens boundary, hundreds boundary Inverse, Multiplication and division 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 **Fractions (including decimals)** Fraction, equivalent fraction, mixed number, numerator, denominator, 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 decimal, decimal fraction, decimal point, decimal place, decimal, equivalent, proportion **Measurement** Measure, measurement, size Compare, unit, standard unit metric unit,measuring scale, division guess, estimate, enough, not enough too much, too little, too many, too few nearly, close to, about the same as, approximately, roughly, just over, just under, Length, millimetre, centimetre, metre, kilometre, mile, length, height, width, depth, breadth, long, short, tall high, low, wide, narrow, thick, thin longer, shorter, taller, higher ... and so on, longest, shortest, tallest, highest ... and so on, far, further, furthest, near, close, distance apart ... between ... to ... from, edge, perimeter, area, covers square centimetre (cm2) ruler, metre stick, tape measure, Weight, mass: big, bigger, small, smaller, weight: heavy/light, heavier/lighter, heaviest/ Lightest, kilogram, half kilogram, gram weigh, weighs, balances, heavy, light heavier than, lighter than, heaviest, lightest, scales, Capacity and volume	...last, last but one, before, after, next, Between, halfway between, above, below, Estimating, guess, how many ...?, estimate, nearly, roughly close to, approximate, approximately, about the same as, just over, just under, exact, exactly, too many, too few, enough, not enough, round, nearest, round to the nearest ten, hundred, thousand, ten thousand round up, round down **Addition and subtraction** 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, missing number, tens boundary, hundreds boundary, ones, boundary, tenths boundary, inverse **Multiplication and division** 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 **Fractions (including decimals and percentages)** 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, percentage, per cent, % **Measurement** Measure, measurement, size, compare, unit, standard unit, metric, unit, imperial unit, measuring scale, division, guess, estimate, enough, not enough, too much, too little, too many, too few, nearly, close to, about the, same as, approximately Roughly, just over, just under, Length millimetre, centimetre, metre,kilometre, mile, length, height, width, depth, breadth, long, short, tall, high, low wide, narrow, thick, thin, longer, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so on, far, further, furthest, near,	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 one before, after, next, between, halfway between, above, below **Estimating** Guess, how many ...? estimate Nearly, roughly, close to, approximate, approximately, about the same as just over, just under, exact, exactly too many, too few, enough, not enough round, nearest, round to the nearest ten, hundred, thousand, ten thousand round up, round down **Addition and subtraction** 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, missing number tens boundary, hundreds boundary, ones, boundary, tenths boundary inverse **Multiplication and division** 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 **Fractions (including decimals, percentages, ratio and proportion)** fraction, proper/improper fraction equivalent fraction, mixed number numerator, denominator, equivalent, reduced to, cancel, equal part equal grouping, equal sharing parts of a whol, 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, % **Algebra** formula, formulae, equation, unknown variable **Measurement** Measure, measurement, size Compare, unit, standard unit, metric unit, imperial unit, measuring scale, division, guess, estimate, enough, not enough, too much, too little, too many, too few, nearly, close to, about the

	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, quarter turn, three-quarter turn **Statistics** count, sort, vote, group, set, list, table	clock/watch, timer, hour hand, minute hand, hours, minutes, seconds, Money Money, coin, penny, pence, pound price, cost, buy, bought, sell, sold spend, spent, pay, change, dear, costs more, cheap, costs less, cheaper, costs the same as, how much ...? how many ...? total **Geometry** Properties of shape, shape, pattern, flat, curved, straight, round, hollow, solid, sort, make, build, draw, surface Size, bigger, larger, smaller, symmetry, symmetrical, symmetrical pattern, line symmetry, pattern, repeating pattern, match, 2-D shape, corner, side, point, pointed, rectangle (including square), rectangular, circle, circular, triangle, triangular, pentagon, hexagon, octagon, 3-D shape, face, edge, vertex, vertices, cube, cuboid, pyramid Sphere, cone, cylinder, Position and direction, position, over, under, underneath, above, below, top, bottom, side, on, in, outside, inside Around, in front, behind, front, back beside, next to, opposite, apart Between, middle, edge, centre Corner, direction, journey, route left, right, up, down, higher, lower forwards, backwards, sideways, across next to, close, near, far, along, through to, from, towards, away from, clockwise, anticlockwise, movement Slide, roll, turn, stretch, bend, whole turn, half turn, quarter turn, three-quarter turn, right angle, straight line **Statistics** count, tally, sort, vote, graph, block, graph, pictogram, represent, group, set, list, table, label, title, most popular, most common, least popular, least common	morning, afternoon, evening, night, bedtime, dinner time, playtime, today, yesterday, tomorrow, before, after earlier, later, next, first, last, midnight calendar, date, now, soon, early, late, earliest, latest, quick, quicker, quickest, quickly, slow, slower, slowest, slowly old, older, oldest, new, newer, newest takes longer, takes less time, how long ago? how long will it be to ...? how long will it take to ...? how often? always, never, often, sometimes Usually, once, twice, hour, o'clock, half past, quarter past, quarter to 5, 10, 15 ... minutes past, a.m., p.m. clock, clock face, watch, hands digital/analogue clock/watch, timer hour, hand, minute hand, hours, minutes, seconds, Roman numerals 12-hour clock time, 24-hour clock time **Money** Money, coin, penny, pence, pound price, cost, buy, bought, sell, sold spend, spent, pay, change, dear, costs more, cheap, costs less, cheaper, costs the same as how much ...? how many ...?, total **Geometry** Properties of shape, shape, pattern, flat, curved, straight, round, hollow, solid, sort, make, build, draw, perimeter, surface, size, bigger, larger, smaller, symmetry, symmetrical, symmetrical pattern, line symmetry pattern, repeating pattern, match 2-D shape, corner, side, point, pointed rectangle (including square), rectangular, circle, circular, triangle, triangular, pentagon, pentagonal, hexagon, hexagonal, octagon, octagonal, quadrilateral, right-angled parallel, perpendicular, 3-D shape face, edge, vertex, vertices, cube, cuboid, pyramid, sphere, hemisphere Cone, cylinder, prism, triangular prism Position and direction, position over, under, underneath, above, below top, bottom, side, on, in outside, inside, around, in front, behind, front, back, beside, next to, opposite Apart, between, middle, edge, centre, corner, direction, journey, route, left, right, up, down, higher, lower, forwards, backwards, sideways Across, next to, close, near, far Along, through, to, from, towards, away from, clockwise, anticlockwise compass point, north, south, east, west, N, S, E, W, horizontal, vertical, diagonal, movement, slide, roll, turn stretch, bend, whole turn, half turn, quarter turn, three-quarter turn angle ... is a greater/smaller angle than, right angle, acute angle, obtuse angle, straight line **Statistics** count, tally, sort, vote, graph, block graph, pictogram, represent group, set, list, table, chart, bar chart, frequency table, Carroll diagram, Venn diagram, label, title, axis, axes Diagram, most popular, most common least popular, least common	litre, half litre, millilitre, capacity, volume, full, empty, more than, less than, half full, quarter full, holds, contains, container, measuring cylinder **Temperature** Temperature, degree, centigrade **Time** Time, days of the week, Monday, Tuesday ...months of the year (January, February ...) seasons: spring, summer, autumn, winter, day, week, weekend, fortnight, month, year,leap year, century, millennium, birthday, holiday, morning, afternoon, evening, night, bedtime, dinner time, playtime, today, yesterday, tomorrow before, after, earlier, later, next, first, last, noon, midnight, calendar, date, date of birth, now, soon, early, late, earliest, latest, quick, quicker, quickest, quickly, slow, slower, slowest, slowly old, older, oldest, new, newer, newest takes longer, takes less time, how long ago? how long will it be to ...? how long will it take to ...?how often? always, never, often, sometimes Usually, once, twice, hour, o'clock, half past, quarter past, quarter to 5, 10, 15 ... minutes past, a.m., p.m, clock, clock face, watch, hands, digital/analogue clock/watch, timer, hour hand, minute hand, hours, minutes, second, timetable, arrive, depart Roman numerals, 12-hour clock time, 24-hour clock time, **Money** money, coin, penny, pence, pound, price, cost, buy, bought, sell, sold, spend, spent, pay, change, dear, costs more, cheap, costs less, cheaper, costs the same as, how much ...? how many ...? total **Geometry** Properties of shape, shape, pattern flat, line, curved, straight, round hollow, solid, sort, make, build, construct, draw, sketch, Perimeter, centre, surface, angle, right-angled base, square-based, size, bigger, larger, smaller, symmetry, symmetrical, symmetrical pattern, line symmetry, reflect, reflection, pattern, repeating pattern, match, regular, irregular 2-D shape, 2-D, two-dimensional corner, side, point, pointed, rectangle (including square), rectangular,oblong Rectilinear, circle, circular, triangle, triangular, equilateral triangle,isosceles triangle, scalene triangle, pentagon, pentagonal, hexagon, hexagonal, heptagon, octagon, octagonal, quadrilateral, parallelogram, rhombus, trapezium, polygon, right-angled parallel, perpendicular, 3-D shape 3-D, three-dimensional, face, edge, vertex, vertices, cube, cuboid Pyramid, sphere, hemisphere, spherical, cone, cylinder, cylindrical prism, triangular prism, tetrahedron, polyhedron, Position and direction Position, over, under, underneath, above, below, top, bottom, side on, in, outside, inside, around in front, behind, front, back, beside, next to, opposite, apart, between,	close, distance apart ... between ... to ... from, edge, perimeter, area, covers square centimetre (cm2), square metre (m2),square millimetre (mm2) Ruler, metre stick, tape measure **Weight** mass: big, bigger, small, smaller weight: heavy/light, heavier/lighter, heaviest/lightest, kilogram, half kilogram, gram, weigh, weighs, balances, heavy, light, heavier than, lighter than, heaviest, lightest, scales Capacity and volume, litre, half litre, millilitre, capacity, volume, full, empty more than, less than, half full, quarter full, holds, contains, container, measuring cylinder, pint, gallon **Temperature** Temperature, degree centigrade **Time** Time, days of the week, Monday, Tuesday ...months of the year (January, February ...) seasons: spring, summer, autumn, winter, day, week, weekend, fortnight, month, year, leap year, century, millennium, birthday, holiday, morning, afternoon, evening, night, bedtime,, dinner time, playtime, today, yesterday, tomorrow, before, after, earlier, later next, first, last, noon, midnight, calendar, date, date of birth, now, soon, early, late, earliest, latest, quick, quicker, quickest, quickly, slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, takes longer, takes, less time, how long ago? how long will it be to ...? how long will it take to ...? how often? always, never, often, sometimes, usually, once, twice hour, o'clock, half past, quarter past, quarter to 5, 10, 15 ... minutes past a.m., p.m. clock, clock face, watch, hands, digital/analogue clock/watch, timer, hour hand, minute hand, hours, minutes, seconds, timetable, arrive, depart, Roman numerals, 12-hour clock time, 24-hour clock time **Money** Money, coin, penny, pence, pound, price, cost, buy, bought, sell, sold spend, spent, pay, change, dear, costs more, cheap, costs less, cheaper, costs the same as, how much ...? how many ...? total, discount, currency **Geometry** Properties of shape ,shape, pattern flat, line, curved, straight, round, hollow, solid, sort, make, build, construct, draw, sketch, perimeter centre, radius, diameter, surface angle, right-angled, congruent, base, square-based, size, bigger, larger, smaller, symmetry, symmetrical, symmetrical pattern, line symmetry reflect, reflection, axis of symmetry, reflective symmetry, pattern, repeating pattern, match, regular, irregular, 2-D shape, 2-D, two-dimensional corner, side, point, pointed, rectangle (including square), rectangular,oblong Rectilinear, circle, circular, triangle, triangular, equilateral triangle,isosceles triangle, scalene	same as, approximately, roughly just over, just under **Length** centimetre, metre, millimetre,kilometre, mile, yard, foot, feet, inch, inches, length, height, width, depth, breadth, long, short, tall, high, low, wide, narrow thick, thin, longer, shorter, taller, higher ... and so on, longest, shortest, tallest, highest ... and so on, far, further, furthest, near, close, distance apart ... between ... to ... from, edge, perimeter, circumference, area, covers, square centimetre (cm2), square metre (m2), square millimetre (mm2) ruler, metre stick, tape measure **Weight** mass: big, bigger, small, smaller, weight: heavy/light, heavier/lighter, heaviest/lightest, tonne, kilogram, half kilogram, gram, pound,ounce weigh, weighs, balances, heavy, light heavier than, lighter than, heaviest, lightest, scales **Capacity and volume** litre, half litre, millilitre, centilitre cubic centimetres(cm3), cubic metres (m3),cubic millimetres (mm3), cubic kilometres (km3)capacity, volume, full Empty, more than, less than, half full quarter full, holds, contains, container, measuring cylinder, pint, gallon **Temperature** Temperature, degree, centigrade **Time** Time, days of the week, Monday, Tuesday ... months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, fortnight, month, year, leap year, century, millennium, birthday, holiday, morning, afternoon, evening, night, bedtime, dinner time, playtime, today, yesterday, tomorrow, before, after, earlier, later next, first, last, noon, midnight, calendar, date, date of birth now, soon, early, late, earliest, latest quick, quicker, quickest, quickly slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, takes longer, takes less time, how long ago? how long will it be to ...? how long will it take to ...? how often?always, never, often, sometimes, usually, once, twice hour, o'clock, half past, quarter past, quarter to 5, 10, 15 ... minutes past a.m., p.m. clock, clock face, watch, hands,digital/analogue clock/watch, timer, hour hand, minute hand, hours, minutes, seconds, timetable, arrive, depart, Roman numerals, 12-hour clock time, 24-hour clock time, Greenwich Mean Time, British Summer Time, International Date Line **Money** Money, coin, penny, pence, pound price, cost, buy, bought, sell, sold, spend, spent, pay, change, dear, costs more, cheap, costs less, cheaper costs the same as how much ...? how many ...? total, discount, currency,

				middle, edge, centre, corner Direction journey, route, left, right up, down, higher, lower, forwards, backwards, sideways, across next to, close, near, far, along Through, to, from, towards, away from clockwise, anticlockwise, compass point, north, south, east, west, N, S, E, W, north-east, north-west, south-east, south-west, NE, NW, SE, SW, horizontal, vertical, diagonal, translate, translation, movement, slide, roll, turn stretch, bend, whole turn, half turn, quarter turn,three-quarter turn, rotate, rotation, angle, is a greater/smaller angle than, degree, right angle, acute angle, obtuse angle, reflection, straight line, ruler, set square angle measurer, compass **Statistics** count, tally, sort, vote, survey,, questionnaire, data, graph, block, graph, pictogram, represent, group, set list, table, chart, bar chart, frequency, table, Carroll diagram, Venn diagram label, title, axis, axes, diagram, most popular, most common, least popular, least common	triangle, pentagon, pentagonal, hexagon, hexagonal Heptagon, octagon, octagonal, quadrilateral, parallelogram, rhombus, trapezium, polygon, right -angled, parallel, perpendicular, x-axis, y-axis, quadrant, 3-D shape, 3-D, three-dimensional, face, edge, vertex, vertices, cube, cuboid, pyramid sphere, hemisphere, spherical, cone cylinder, cylindrical, prism, triangular prism, tetrahedron, polyhedron Octahedron **Position and direction** Position, over, under, underneath above, below, top, bottom, side on, in, outside, inside, around, in front, behind, front, back, beside, next to opposite, apart, between, middle, edge Centre, corner, direction, journey,route left, right, up, down, higher, lower forwards, backwards, sideways Across, next to, close, near, far, Along, through, to, from, towards, away from clockwise, anticlockwise, compass point, south, east, west, N, S, E, W north-east, north-west, south-east, south-west, NE, NW, SE, SW, horizontal, vertical, diagonal, translate, translation, coordinate, movement, slide, roll, turn, stretch, bend, whole turn, half turn, quarter turn, three-quarter turn, rotate, rotation angle, is a greater/smaller angle than Degree, right angle, acute angle obtuse angle, reflection, straight line ruler, set square, angle measurer, compass, protractor **Statistics** count, tally, sort, vote, survey, questionnaire, data, database, graph, block graph, pictogram, represent, group, set, list, table, chart, bar chart, frequency table,bar line chart, Carroll diagram, Venn diagram, line graph label, title, axis, axes, diagram, most popular, most common, least popular, least common, maximum/minimum value, outcome	profit, loss **Geometry** Properties of shape, shape, pattern flat, line, curved, straight, round hollow, solid, sort, make, build, construct, draw, sketch, perimeter centre, radius, diameter, circumference, concentric, arc, net, open, closed, surface, angle, right-angled, congruent, intersecting, intersection, plane, base, square-based, size, bigger, larger, smaller, symmetry, symmetrical, symmetrical pattern, line symmetry reflect, reflection, axis of symmetry, reflective symmetry, pattern, repeating pattern, match, regular, irregular, 2-D shape, 2-D, two-dimensional corner, side, point, pointed, rectangle (including square), rectangular,oblong Rectilinear, circle, circular, triangle, triangular, equilateral triangle,isosceles triangle,scalene triangle, pentagon, pentagonal, hexagon, hexagonal heptagon,octagon, octagonal Quadrilateral, parallelogram, rhombus, trapezium, kite, polygon, right-angled parallel, perpendicular x-axis, y-axis, quadrant, 3-D shape, 3-D,three-dimensional face, edge, vertex, vertices, cube, cuboid, pyramid, sphere, hemisphere, spherical, cone, cylinder, cylindrical prism, triangular prism, tetrahedron, polyhedron, octahedron, dodecahedron, net, open, closed Position and direction, position over, under, underneath, above, below top, bottom, side, on, in outside, inside, around, in front, behind front, back, beside, next to, opposite Apart, between, middle, edge, centre Corner, direction, journey, route left, right, up, down, higher, lower forwards, backwards, sideways, across, next to, close, near, far Along, through, to, from, towards, away from, clockwise, anticlockwise compass point, north, south, east, west, N, S, E, W, north-east, north-west, south-east,, south-west, NE, NW, SE, SW, horizontal, vertical, diagonal, translate, translation Coordinate, movement Slide, roll, turn, stretch, bend whole turn, half turn, quarter turn, three-quarter turn, rotate, rotation angle, is a greater/smaller angle than Degree, right angle, acute angle, obtuse angle, reflex angle, reflection straight line, ruler, set square, angle measurer, compass, protractor **Statistics** count, tally, sort, vote, survey, questionnaire, data, database, graph, block graph, pictogram, represent group, set, list, table, chart, bar chart, frequency table, bar line chart Carroll diagram, Venn diagram, line graph, pie chart, label, title, axis, axes Diagram, most popular, most common least popular, least common, maximum/minimum value, outcome mean (mode, median, range as, estimates for this), statistics, distribution

Mental calculation

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Can I… -mentally add and subtract one- and two-digit numbers to 20, including zero -Mentally double numbers up to 10	Can I…? - Recall multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers (8 x 5 = 40, 40 ÷ 5 = 8) -Add and subtract mentally two two-digit numbers and adding three one-digit numbers -Calculate mentally using multiplication and division facts for the 2, 5	Can I…? -Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables -Mentally add and subtract numbers including a three-digit numbers with ones, tens or hundreds -Continue to use addition and subtraction facts to 20 and derive related facts up to 100 -Calculate mentally using multiplication and division facts for the 3, 4 and 8 multiplication tables, including two-digit numbers times one-digit numbers -Develop recall of number facts linking addition and multiplication (+)	Can I…? -know all my times tables and related division facts up to the 12 times tables - Use factor pairs in mental calculations -Mentally add and subtract pairs of three-digit and four-digit numbers -Use addition and subtraction facts to 100 and derive related facts up to 1000 (+) 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	Can I…? -know all my times tables and related division facts up to the 12 times tables within 5 seconds -Add and subtract numbers mentally with increasingly large numbers (e.g. 15,650 - 450 =) -Continue to develop knowledge of addition and subtraction facts and to derive related facts (e.g. can write several calculations from one given calculation 15 + 60 =75) -Multiply and divide numbers mentally drawing upon known facts (e.g. 25 x 80 x 2.5=) -Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 -Recall square numbers and cube numbers and the notation for them -Recall prime numbers up to 19	Can I… -know all my times tables and related division facts up to the 12 times tables within 5 seconds -Perform mental calculations, including with mixed operations and large numbers. E.g 12 x 70 + 3 x 20 mentally. -Consolidate knowledge of addition facts and the related subtraction facts, deriving further related facts as required E.g The pupil can write a variety of calculations derived from 105 + 632 = 737 -Identify common factors, common multiples and prime numbers greater than 100. The pupil can decide, given 35 and 80, what their common factors and multiples are. The pupil can decide whether 133 is a prime number. They do this using recall, mental calculation and jottings -multiplying and dividing whole numbers and decimals by 10, 100 and 1000. E.g 2.3 x 1000 = 2300 and 98 ÷ 1000 = 0.098

Number and place value

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

	Can I…? -Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number -given a number, identify one more and one less -count in multiples of twos, fives and tens -read and write numbers to 100 in numerals -read and write numbers from 1 to 20 in words -Identify and represent numbers using objects and pictorial representations including the number line -Use the language of: equal to, more than, less than (fewer), most, least -Solve number problems with number and place value from the Year 1 curriculum	Can I…? -Count in tens from any number, forward and backward. -Identify ten more or ten less than any given Number -Count in steps of 2, 3, and 5 from 0, forward and backward -Recognise the place value of each digit in a two- digit number (tens, ones) -Read and write numbers to at least 100 in numerals and words -Identify, represent and estimate numbers to 100 using different representations, including the number line, and partitioning in different ways (42 =40 + 2 42 = 30 + 12) - Compare and order numbers from 0 up to 100; use <, > and = signs -Solve number problems with number facts and place value from the Year 2 curriculum	Can I…? - Count from 0 in multiples of 100 -Find 10 or 100 more or less than a given number -Count from 0 in multiples of 4, 8 and 50 -Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) -Read and write numbers up to 1000 in numerals and in words -Identify, represent and estimate numbers to 1000 using different representations and partitioning in different ways -Compare and order numbers up to 1000 -Solve number problems and practical problems with number and place value from the Year 3 curriculum -Round whole numbers up to 100 to the nearest 10 -Use understanding of place value and partitioning to develop methods for addition and subtraction with larger numbers	Can I…? -Count in multiples of 1000; count backwards through zero to include negative Numbers - Find 1000 more or less than a given number -Count in multiples of 6, 7, 9 and 25 -Recognise the place value of each digit in a four-digit number (thousands,hundreds, tens, ones) -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 -Identify, represent and estimate numbers to 10 000 using different representations -Order and compare numbers beyond 1000 -Solve number and practical problems with number and place value from the Year 4 curriculum, with increasingly large positive numbers -Round whole numbers to 10,000 to the nearest 10, 100 or 1000	Can I…? -Count forwards and backwards with positive and negative whole numbers, including through zero -Count forwards or backwards in steps of powers of 10 for any given number to 1 000 000 -Continue to count in any multiples of 2 to 10, 25 and 50 -Read and write numbers to at least 1 000 000 and determine the value of each digit -Read Roman numerals to 1000 (M) and recognise years written in Roman Numerals -Interpret negative numbers in context (^) -Order and compare numbers to at least 1 000 000 -Solve number problems and practical problems with number and place value from the Year 5 curriculum -Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 -Establish whether a number up to 100 is prime -Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers	Can I -Calculate intervals across zero -Use negative numbers in context -Consolidate counting forwards or backwards in steps of powers of 10 for any given number to 1 000 000 --Consolidate counting in multiples of 2, through to 10, 25 and 50 --Read and write numbers to 10 000 000 and determine the value of digits -consolidate reading Roman numerals to 1000 (M) and recognising years written in Roman numerals -Order and compare numbers up to 10 000 000 -Solve number problems and practical problems with number and place value from the Year 6 curriculum -Round whole numbers to 10 000 000 to a required degree of accuracy

Addition and subtraction

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Can I… -Represent and use number bonds and related subtraction facts within 20 -Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9 -begin to memorise number bonds to 10 and 20, including noticing the effect of adding or subtracting zero -Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs	Can I…? -Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot -Understand that sum and difference indicate addition and subtraction respectively -Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers and adding three one-digit numbers -Use addition and subtraction facts to 20 and derive related facts up to 100 -Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods -Use the inverse relationship between addition and subtraction to solve missing number problems -Recall addition and subtraction facts to 20 fluently, deriving related facts to 100 (20 + 70 = 90 2 + 7 = 9) -Check subtraction calculations using addition calculations by adding in a different order	Can I…? -Solve problems including missing number problems, using place value and more complex addition and subtraction -Solve problems including missing number problems, using number facts and more complex addition and subtraction -Add and subtract numbers with up to three digits, using formal columnar methods of addition and Subtraction -Check addition calculations using subtraction and addition and subtraction calculations using rounding	Can I…? -Understand the inverse relationship between addition and subtraction -Solve calculation problems involving two-step addition and subtraction in context, deciding which operations to use and why -Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate -Check answers to addition and subtraction calculations by estimating and using inverse operations	Can I…? -Develop their understanding of the meaning of the equals sign (e.g. 4 + 8 = 10 + 2 and 4 + ? = 13) -Solve addition and subtraction multi-step problems in familiar contexts, deciding which operations and methods to use and why -Solve problems involving addition, subtraction. -Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) -Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Can I… -Solve multi-step addition and subtraction problems in less familiar contexts, deciding which operations and methods to use and why -Consolidate solving problems using more than one of the four operations -Solve multi-step calculation problems involving combinations of all four operations -Consolidate adding and subtracting whole numbers with more than 4 digits, including using formal written columnar addition and subtraction -Check answers to calculations with mixed operations and large numbers, choosing the most appropriate method, including estimation, and determining, in the context of a problem, an appropriate degree of accuracy - Check answers to calculations with all four operations involving any numbers by rounding

Multiplication and division

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Can I… -Begin to understand multiplication, division and doubling through grouping and sharing small quantities -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 -Use arrays to represent multiplication and record grouping when doing division	Can I…? -Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another Cannot. -Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	Can I…? -Use commutativity and associativity and multiplication facts to derive related facts (2 x 5 x 8 work this out by using 10 x 8 =) -Understand the structure of situations that require Multiplication -Solve calculation problems involving multiplication and division, including missing number problems, simple positive integer scaling and simple Correspondence problems in which n objects are connected to m objects -Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	Can I…? -Use the distributive law to multiply two digit numbers by one digit -Solve problems involving multiplying and adding, including integer scaling and harder correspondence problems such as n objects are connected to m Objects -Recognise factor pairs -Multiply two-digit and three-digit numbers by a one-digit number using formal written layout -Divide two-digit and three-digit numbers by a one-digit number using formal written layout -Check answers to multiplication and division calculations using rounding -Use factors and multiples to recognise equivalent fractions and simplify where appropriate	Can I…? -Continue to use the distributive law to partition numbers when multiplying them (e.g.214 x 9 =) -Solve calculation problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes - Identify multiples and factors, including all factor pairs of a number, and common factors of 2 numbers -Solve problems involving multiplication and division, and a combination of these -Multiply numbers up to 4 digits by a one- or two- digit number using a formal written method, including long multiplication for two-digit numbers -Divide numbers up to 4 digits by a one-digit number using formal written method of short division and interpret remainders appropriately for the Context -Check answers to calculations and to multiplication and division calculations using the inverse (+)	Can I… -Consolidate understanding of the structure of numbers. E.g using factors and prime numbers to help with simplifying fractions -Consolidate knowledge of types of Number. E.g The pupil can identify factors and multiples of numbers up to 50 and prime numbers up to 20. -Consolidate knowledge of multiples and factors, including all factor pairs of a number, and common factors of two numbers -Consolidate recall of square numbers and cube numbers and the notation for them -Multiply multi digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication -Divide numbers up to 4 digits by a two-digit whole number using the formal methods of short or long division, and interpret remainders as appropriate for the context as whole numbers, fractions or by rounding -Check answers to calculations with mixed operations and large numbers, choosing the most appropriate method, including estimation, and determining, in the context of a problem, an appropriate degree of accuracy - Check answers to calculations with all four operations involving any numbers by rounding

Fractions, decimals and percentages

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Can I… -Recognise, find and name a half as one of two equal parts of an object, shape or quantity -Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	Can I…? -Recognise, find, name and write fractions ⅓ and 1/4 of a length, shape, set of objects or quantity -Recognise, find, name and write fractions 2/4 and 3/4 of a length, shape, set of objects or quantity -Recognise the equivalence of 2/4 and ½ -Write simple fractions	Can I…? -Recognise, find and write fractions of a discrete set of objects, unit fractions with small denominators -Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 -Recognise and show, using diagrams, equivalent fractions with small denominators -Connect tenths to decimal measures and place value (+) -Compare and order unit fractions, and fractions with the same denominators -Add and subtract fractions with the same denominator within one whole [for example 5/7 + 1/7 = 6/7] -Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators -Solve problems with fractions from the	Can I…? -Make connections between fractions of a length, of a shape and as a representation of one whole or a set of quantities -Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten -Divide a one- or two-digit numbers by 10 and 100, identifying the value of the digits in the answer as ones, tenths and Hundredths -Recognise and show, using diagrams, families of common equivalent Fractions -Recognise that the denominator of a fraction always tells you the number of equal parts that make one whole -Recognise and write decimal	Can I…? -Solve problems involving scaling by simple fractions and problems involving simple rates -Write mathematical statements > 1 as a mixed number -Continue to apply their knowledge of multiplication table facts to find equivalent fractions -Recognise and use thousandths and relate them to tenths and hundredths -Divide one- or two-digit numbers by 1000, identifying the value of the digits in the answer as ones, tenths, hundredths and thousandths -Recognise the per cent symbol and understand that per cent relates to 'number of parts per hundred' -Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths -Recognise mixed numbers and	Can I… -Consolidate solving calculation problems involving scaling by simple fractions and simple Rates - Associate a fraction with division. E.g three-fifths can also be interpreted as 3 ÷ 5 and that 7 ÷ 5 can be interpreted as seven-fifths or one and two fifths. -understanding of equivalent fractions by extending to improper fractions. E.g recognise that 7/5 and 14/10 are equivalent. -Identify the value of each digit in numbers given to three decimal places -Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places -Consolidate recognition of the per cent symbol and understanding that per cent relates to 'number of parts per hundred -Use common factors to simplify fractions

			National Curriculum (y3) such as 'I have 12 counters. One-quarter of them are blue, one-third are yellow and the rest are green. How many are green?'	equivalents of any number of tenths or hundredths and 1/4; 1/2; 3/4 -Continue to compare and order unit fractions, and fractions with the same denominators -Add and subtract fractions with the same denominator -Understand the relation between non-unit fractions and multiplication and division of quantities -Rounds decimals with one decimal place to the nearest whole number -Compares numbers with the same number of decimal places up to two decimal places -Solve problems involving harder fractions to calculate and divide quantities, including non-unit fractions where the answer is a whole number -Solve simple measure and money problems involving fractions and decimals to two decimal places	improper fractions and convert from one form to the other -Relate thousandths to decimal equivalents -Read and write decimal numbers as fractions -Write percentages as a fraction with denominator hundred, and as a decimal -Know percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25 -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, including calculations -Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams -Round decimals with two decimal places to the nearest whole number and to one decimal place -Read, write, order and compare numbers with up to three decimal places -Add and subtract decimals including those with a different number of decimal places -Solve a variety of problems involving fractions -Solve problems involving addition and subtraction involving numbers up to three decimal places -Solve problems which require knowing key percentage and decimal equivalents	-Use common multiples to express fractions in the same Denomination. E.g .change 1/3 to twelfths by multiplying both the numerator and denominator by four, and 3/4 to twelfths by multiplying both the numerator and the denominator by three. -understanding of the relation between tenths, hundredths and thousandths and decimal notation - Calculate decimal fraction equivalents for a simple fraction e.g 0.125 as the decimal equivalent of 1/8 by deducing it from the decimal equivalent of 1/4 or use a calculator to do 1 ÷ 8 - Consolidate understanding of the connection between fractions, decimals and percentages -Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts -Compare and order fractions, including fractions > 1 -Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions -Multiply simple pairs of proper fractions -Divide proper fractions by whole numbers -Round decimals to three decimal places or other approximations depending on the context -Use written division methods in cases where the answer has up to two decimal places. E.g The pupil can calculate 317 ÷ 25 -Multiply one-digit numbers with up to two decimal places by whole numbers. E.g 3.78 x 27 -Multiply a quantity that represents a unit fraction to find the whole quantity e.g 'One-quarter of a packet of biscuits is five biscuits. How many biscuits are in the whole packet? -Solve problems which require decimal answers to be rounded to specified degrees of accuracy

Measurement

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Can I… -Sequence events in chronological order using Language -Recognise and use language relating to dates, including days of the week, weeks, months and years -Recognise and know the value of different denominations of coins and Notes -Begin to handle coins and become	Can I …? -Compare and sequence intervals of time -Know the number of minutes in an hour and the number of hours in a day -Recognise and use symbols for pounds (£) and Pence -Compare and order measurements and record the results using >, < and = as well as simple multiples	Can I…? -Convert between analogue and 12-hour digital clocks -Know the number of seconds in a minute and the number of days in each month, year and leap year -Become confident in exchanging between £ and p when handling money -Record measurements using	Can I…? -Read, write and convert time between analogue and digital 12- and 24-hour clocks -Convert from larger to smaller units of time -Record money using decimal notation -Convert from larger to smaller units of metric measure -Read time from analogue and digital	Can I…? -Continue to develop understanding of how analogue and digital clocks tell the time -Continue to practise converting between units of time -Develop fluency in using money expressed in £, converting to p when necessary (+) -Convert between different units of	Can I.. -Continue to develop understanding of how analogue and digital clocks tell the time -Consolidate understanding of converting between units of time --become fluent in recording and telling the time - for example using time to plan ahead -Consolidate fluency in using money

	familiar with coins up to 20 pence -Use non-standard units to measure length, mass and capacity -Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times -Measure and begin to record time (hours, minutes, seconds) -Measure and begin to record lengths and heights, mass/weight, capacity and volume -Compare, describe and solve practical problems for lengths and heights, mass or weight and capacity/volume	-Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times -Record the time on an analogue clock in words -Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels -Calculate time intervals and develop a sense of the length of different units of time -Combine amounts of money to make a particular value including different combinations of coins that equal the same amount of money -Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change -Solve problems involving comparing measures of length, mass and capacity/volume	mixed units, e.g.1 kg 200 g -Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight - Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks -Continue to choose the appropriate tools and units when measuring, selecting from a wider range of measures -Compare durations of events [for example to calculate the time taken by particular events or tasks] -Continue to solve problems involving combinations of coins and notes (+) -Add and subtract amounts of money to give change, recording £ and p separately -Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) -Measure the distance around shapes in the classroom and outside Environment -Measure the perimeter of simple 2-D shapes	12- and 24-hour clocks -Write time from analogue and digital 12- and 24-hour clocks -Estimate and compare different measures, including Money -Measure the perimeter of a rectilinear figure -Find the area of rectilinear shapes by counting squares and relate it to multiplication arrays -Continue to solve problems relating to the duration of events -Calculate with different measures -Calculate with money in pounds and pence -Continue to solve problems involving mixed units of length, mass and capacity/volume -Calculate the perimeter of a rectilinear figure	metric Measure -Understand and use approximate equivalences between metric units and common imperial units -Understand the difference between perimeter as a measure of length and area as a measure of two- dimensional space -Continue to become fluent in telling the time -Continue to estimate and compare different measurements -Measure the perimeter of composite rectilinear shapes -Estimate the area of irregular shapes and volume and capacity	expressed in £ and p -Use, read and write standard units with up to three decimal places, including converting from smaller to larger units and vice versa -Convert between miles and kilometres and use a conversion graph. E.g using 5 miles = 8 km -Recognise that shapes with the same areas can have different perimeters and vice versa -Continue to measure and compare using different standard units of measure and interpret scales on a range of measuring instruments -Consolidate skills in identifying and measuring perimeter -Estimate, calculate and compare volume of cubes and cuboids -Consolidate skills in solving problems converting between units of time -Add and subtract positive and negative measurements such as temperature -Continue to solve problems involving money using the four operations -Solve measurement problems with decimal notation up to three decimal places and approximate equivalences between metric and imperial measurements -Calculate the area of parallelograms and triangles -Recognise when it is possible to use formulae for area and volume of shapes

Geometry - properties of shapes

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Can I… -Recognise common 2-D shapes in different orientations and sizes i.e. including rectangles (including squares), circles and triangles -Name common 2-D shapes in different orientations and sizes i.e. including rectangles (including squares), circles and triangles -Recognise and name common 3-D shapes in different orientations and sizes i.e. including cuboids (including cubes), pyramids and spheres -Describe position using everyday language e.g. top, middle, bottom, in front of, between, near, Inside -Recognise and create simple repeating patterns with objects and Shapes -Describe movement in straight lines using everyday language and describe turns, including half, quarter and three quarter turns in both directions and connect turning clockwise with movement on a clock face	Can I…? -Identify 2-D shapes on the surface of 3-D Shapes --Draw lines and shapes using a straight Edge -Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line -Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces -Use mathematical vocabulary to describe position -Order and arrange combinations of mathematical objects in patterns and sequences -Use mathematical vocabulary to describe movement, including movement in a straight line	Can I…? -Draw 2-D shapes with straight sides measured in cm (+) -Make 3-D shapes using modelling materials -Identify horizontal and vertical lines and pairs of perpendicular and parallel lines -Describe 2-D shapes using accurate language, including lengths of lines and angles greater or less than a right angle -Recognise 3-D shapes in different orientations and describe them -Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn -Identify whether angles are greater than or less than a right angle - Recognise angles as a property of shape or a description of a turn -Continue to recognise and devise patterns and sequences in shapes	Can I…? -Complete a simple symmetric figure with respect to a specific line of symmetry, and measure angles using a protractor (+) -Identify lines of symmetry in 2-D shapes presented in different orientations, including where the line of symmetry does not dissect the original shape -Continue to recognise 3-D shapes, using the correct language -Compare and classify geometric shapes, including different types of quadrilaterals and triangles, based on their properties and sizes -Use the vocabulary of the different types of triangle and quadrilateral -Continue to make and classify 3-D shapes, including by the 2-D shapes that form their surface -Identify acute and obtuse angles -Compare and order angles up to two right angles by size -Continue to identify types of angles and to reason about their sizes -Describe positions on a 2-D grid as	Can I…? -Draw given angles, and measure them in degrees (*) and draw shapes with sides measured to the nearest millimetre -Use conventional markings for parallel lines and right angles -Identify 3-D shapes,including cubes and other cuboids, from 2-D representations -Distinguish between regular and irregular polygons based on reasoning about equal sides and angles -Continue to make and classify 3-D shapes, including identifying all of the 2-D shapes that form their surface -Identify angles at a point and one whole turn, angles at a point on a straight line and ½ a turn and other multiples of 90o -Estimate and compare acute, obtuse and reflex angles -Use the properties of rectangles to deduce related facts and find missing lengths and angles -Continue to use coordinates in the first quadrant to become fluent in their	Can I… -Draw 2-D shapes accurately using given dimensions and angles -Use conventional markings and labels for lines and angles -Build simple 3-D shapes, including making nets -Compare and classify geometric shapes based on increasingly complex geometric properties and sizes -Illustrate and names parts of circles, including radius, diameter and circumference and know that the diameter of a circle is twice the radius -Recognise 3-D shapes from their nets -Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles -Check solutions to missing angle problems by estimating -Find unknown angles and lengths in triangles, quadrilaterals, and regular polygons -Use positions on the full coordinate grid (all four quadrants) - Draw and label rectangles (including

				coordinates in the first quadrant -Plot specified points and draw sides to complete a given polygon -Describe movement between positions as translations of a given unit to the left/right and up/down	use -Identify the points required to complete a polygon -Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.	squares), parallelograms and rhombuses specified by coordinates in the four quadrants, predicting missing coordinates using the properties of shapes -Draw and translate simple shapes on the coordinate plane, and reflect them in the axes

Statistics

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Can I…? -Interpret data from simple pictograms, tally charts, block diagrams and simple tables -Present data in simple tables, simple pictograms, tally charts and block diagrams -Ask and answer questions about totalling and comparing categorical data -Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity	Can I…? -Interpret bar charts, pictograms and Tables -Present data in bar charts, pictograms and tables -Solve problems with one or two steps using scaled bar charts, pictograms and tables -Continue to count the number of objects in each category and sort the categories by quantity	Can I…? -Interpret discrete and continuous data using appropriate graphical methods, including time graphs -Present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs -Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs -Begin to solve problems involving information presented in tables -Solve calculation problems involving multiplying and adding, including integer scaling and harder correspondence problems such as n objects are connected to m objects.	Can I…? -Interpret line graphs -Interpret more complex tables, including timetables -Decide the best way to present given data -Complete tables, including timetables -Solve comparison, sum and difference problems using information presented in a line graph -Solve problems using information in tables, including timetables	Can I… -Interpret data in pie charts -Consolidate skills in interpreting more complex tables, including timetables -Present data using pie charts and line graphs -Solve problems using pie charts and line graphs -Calculate and interpret the mean as an average

Algebra

Year 5	Year 6
Can I…? -Express missing measure questions algebraically (e.g. The pupil can express the problem of finding the width of a rectangle with length 7 cm and perimeter 20 cm as 2w + 14 = 20.) -Distributivity can be expressed as a(b + c) = ab + ac (+) -Recognise and describe linear number sequences and find the term to term rule (e.g. The pupil can identify 2, 5, 8 ... as a linear sequence with a rule that says + 3'.)	Can I…? -Use knowledge of the order of Operations (BIDMAS) E.g The pupil can correctly calculate 3 − 5 x 8 + 1 as −36, and 3 x (5 + 7) as 36. -Consolidate their understanding of the equals sign as representing equivalence between two expressions. E.g The pupil can deal with a variety of instances of the equals sign including 30 − ? = 12 + 3 x 5. -**Express missing number problems algebraically.** E.g 3x − 5 = 16, find x' -**Use simple formulae** e.g area of a rectangle using the formula a = lw. -**Find pairs of numbers that satisfy an equation with two unknowns.** E.g 2a + b = 24. -**Enumerate possibilities of combinations of two variables**. E.g Two numbers have a sum of 20 and a product that is an even number. What could the numbers be?'-**Generate and describe linear number sequences**. E.g continue a growing sequence of shapes such as T-shapes made with five squares then eight squares then 11 squares, describing how to continue the sequence and being able to answer questions such as 'Will there be a T-shape with 100 squares in the sequence?'

Ratio and proportion

Year 5	Year 6
Can I…?	Can I…?

-Multiply numbers up to 4 digits by a one- or two-digit number using a formal method, including long multiplication for two-digit numbers and divide numbers up to 4 digits by a one-digit number using formal short division, interpreting non-integer answers to division according to context. -Recognise the per cent symbol and understand that per cent relates to 'number of parts per hundred' -Solve calculation problems involving scaling by simple fractions and simple Rates (e.g. The pupil can solve problems such as'Two rulers cost 60p. How much do five rulers cost?')	-**Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts**. E.g can convert a recipe for four people to a recipe for 12 people. -**Solve problems involving the calculation of percentages and the use of percentages for comparison.** E.g Work out whether 20% off £15 is a better deal than 1/3 off £15. -**Solve problems involving similar shapes where the scale factor is known or can be found.** E.g work out the length and width of a photograph which has been enlarged by a scale factor of two from 7 inches by 5 inches. - **Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.** E.g Two-thirds of the class are girls and there are 18 girls. How many boys are there in the class?'