

FORMAT FOR ILPs, REPORTS AND ANNUAL REVIEWS

YEAR 3 LEVEL

NUMBERS AND THE NUMBER SYSTEM

COUNTING, PROPERTIES OF NUMBERS & NUMBER SEQUENCES

Fill in gaps on a number track less than 1000 with some numbers already entered.

Place numbers a specified interval in front of or behind a given number on a number track to 1000.

Counting forwards/backwards on a number track to 1000, give the interval between two specified numbers.

Count larger collections by grouping them: eg in tens, then other numbers.

Use, read and begin to write 'count', 'tally' and 'how many?'

Suggest appropriate tally groupings for counting scenarios in the hundreds.

Describe and extend number sequences.

Count on in twos starting from any two-digit number.

Count on in steps of 3 from any small number to at least 50.

Count on in steps of 4 from any small number to at least 50.

Count on in steps of 5 from any small number to at least 50.

Count on or back in tens, starting from any two- or three-digit number.

Count back in twos starting from any two-digit number.

Count back in steps of 3 from any small number to at least 50.

Count back in steps of 4 from at least 50.

Count back in steps of 5 from at least 50.

Count back in tens, starting from any two- or three-digit number.

Investigate the patterns when you count on in 3s on a 4x4 grid and colour the squares you land on. Repeat on a 5x5 and then predict 6x6. For each square, predict numbers not on it which would be coloured/not coloured.

Describe the rule, and extend, for ascending and descending sequences to 100 which are increments of 2, 3, 4 or 5, starting from zero or any small number.

Create sequences with a given constraint eg includes the numbers 7 and 12.

Know how many tens were counted on or back to get from one specified number to another.

Count on in hundreds, starting from any two- or three-digit number.

Count back in hundreds, starting from any two- or three-digit number.

Know how many hundreds were counted on or back to get from one specified number to another.

Count on in multiples of 50, starting at zero.

Count back in multiples of 50, starting at a multiple of 50.

Recognise two-digit and three- digit multiples of 2 as numbers ending in 0, 2, 4, 6, 8.

Recognise two-digit and three-digit multiples of 5 as numbers ending in 0 or 5.

Recognise two-digit and three-digit multiples of 10 as numbers ending in 0.

Recognise three-digit multiples of 50 as numbers ending in 00 or 50.

Recognise three-digit multiples of 100 as numbers ending in 00.

Be able to give multiples of 10, 50 or 100 before or after a specified number.

Use *multiple*.

Read *multiple*.

Begin to write *multiple*.

Know how to recognise odd and even numbers to at least 100.

Know which odd/even number comes before/ after a specified number to at least 30.

Know an even number ends in 0, 2, 4, 6 or 8 and an odd numbers ends in 1, 3, 5, 7, 9.

Know if you add two odd or even numbers, the answer is even, and if you add an odd and even, the answer is odd.

Use *odd, even, sequence, predict, continue, rule and relationship*

Read the above vocabulary.

Begin to write the above vocabulary.

PLACE VALUE AND ORDERING

Read whole numbers to at least 1000 in figures.

Read whole numbers to at least 1000 in words.

Write whole numbers to at least 1000 in figures.

Write whole numbers to at least 1000 in words.

Know what each digit in a three-digit number represents, including zero as a place holder.

Partition three-digit numbers into a multiple of 100, a multiple of ten and one (HTU).

Show three-digit numbers on an abacus.

Use *units or ones, tens, hundreds, digits, one-digit number, two-digit number, three-digit number, place value.*

Read the above vocabulary.

Begin to write the above vocabulary.

In one step (operation) make 478 into 978 etc, make 326 into 396 etc, change 707 into 507 etc, change 263 into 203 etc

Explain what number needs to go in each box- $364 = \square + 60 + 4$, $472 = 400 + \square + 2$

Make the biggest and smallest numbers with three provided digits.

Exchange pennies for £1, 10p and 1p coins.

Use the vocabulary of comparing and ordering numbers eg *ordinal numbers in words, how many, the same number as, equal to, more than, less than, fewer than, greater than, smaller than, larger than, most, least, smallest, largest, order, first, last, before, after, next, between, halfway between.*

Read the above vocabulary.

Begin to write the above vocabulary.

Use the = sign to represent equality.

Compare two given three-digit numbers and say which is more or less.

Give a number which lies between two given three-digit numbers

Say the number that is 1 more than any given two- or three-digit number.

Say the number that is 10 more than any given two- or three-digit number.

Say the number that is 100 more than any given two- or three-digit number.

Say the number that is 1 less than any given two- or three-digit number.

Say the number that is 10 less than any given two- or three-digit number.

Say the number that is 100 less than any given two- or three-digit number.

Order whole numbers to at least 1000.

ESTIMATION AND ROUNDING

Use *guess how many, estimate, round, nearest, roughly, nearly, close to, approximately, too many, too few, enough, not enough.*

Read the above vocabulary.

Write the above vocabulary.

Give a sensible estimate of up to about 100 objects.

Explain how estimates were made and justify why they are reasonable.

Estimate the position of an undivided number line whose ends are numbered and ≤ 100 .

Round any two-digit number to the nearest 10.

Round any three-digit number to the nearest 100.

Round numbers which are units of measurement eg £, g, m, cm etc.

FRACTIONS

Use *part, fraction, one whole, one half, one quarter, three quarters, one third, two thirds, one tenth etc.*

Read the above vocabulary.

Begin to write the above vocabulary.

Recognise unit fractions up to $1/n$ where $n \leq 10$.

Shade fractions of the form $1/n$ on shapes which have been subdivided, including into parts $> n$.

Recognise shapes shaded in ways which are not equal fractions eg *not* $1/5$.

Identify the fraction of a shape *not* shaded.

Identify the fraction ($1/n$) of a set which has been ringed or collected.

Identify the fraction of a set of objects which have not been ringed or collected.

Complete shading partly shaded, subdivided shapes to make a specified fraction.

Begin to recognise simple fractions that are several parts of a whole.

Begin to recognise simple equivalent fractions: for example, five tenths and one half, five fifths and one whole.

Place halves, quarters, three quarters on a number line.

Compare familiar fractions: for example, know that on the number line one half lies between one quarter and three quarters, a half is less than three quarters etc.

Use a number line to find half of any number to 100.

Estimate a simple fraction eg it is nearly half past, a jar of 100 sweets is nearly half empty, so it has about 50 sweets.

CALCULATIONS

UNDERSTANDING ADDITION AND SUBTRACTION

Read *more, add, sum, total, altogether, equals, sign*.

Begin to write the above vocabulary.

Use the +, – and = signs.

Extend understanding of the operations of addition and subtraction.

Recognise the use of a symbol such as n or s to stand for an unknown number.

Complete using rapid recall for facts to 20.

Continue to recognise that addition can be done in any order.

Extend understanding that more than two numbers can be added.

Add two-digit and three-digit numbers with the help of apparatus or pencil and paper.

Extend understanding that subtraction is the inverse of addition.

Add three or four single-digit numbers mentally.

Add three or more one-, two- or three-digit numbers with the help of 10p and 1p coins or 10-sticks and unit bricks. (totals up to 1000).

Add three or more one-, two- or three-digit numbers with the help of a number line (totals up to 1000).

Add three or more one-, two- or three-digit numbers with the help of 100 square (totals up to 1000).

Add three or more one-, two or three-digit numbers (totals up to 1000) using and explaining mental strategies

Investigate 3 hops on a number line from a given start to a specified end ≤ 1000 and record in the form $132 + \nabla + \square = 100$.

Find the missing number in equations of the forms- $190 + \square + 5 = 300$, $190 + 105 + \square = 300$,
 $\square + 105 + 5 = 35$

Explore the different totals which can be made by adding different combinations of provided numbers eg three out of 19, 63, 54, 106, 97.

Using coins if necessary, add bills containing 3 or more two-digit numbers of pennies.

Using coins if necessary, add bills containing 3 or more figures of the form £4.50.

RAPID RECALL OF ADDITION AND SUBTRACTION FACTS

Know by heart all addition and subtraction facts for each number to 20.

Know by heart all pairs of multiples of 100 with a total of 1000 (e.g. $300 + 700$).

Derive quickly all pairs of multiples of 5 with a total of 100 (e.g. $35 + 65$).

MENTAL CALCULATION STRATEGIES (+ AND -)

Use knowledge that addition can be done in any order to do mental calculations more efficiently.

For example: put the larger number first and count on; add three or four small numbers by putting the largest number first and/or by finding pairs totalling 9, 10 or 11.

Partition into '5 and a bit' when adding 6, 7, 8 or 9 (e.g. $47 + 8 = 45 + 2 + 5 + 3 = 50 + 5 = 55$).

Partition into tens and units, then recombine (e.g. $34 + 53 = 30 + 50 + 4 + 3$).

Find a small difference by counting up from the smaller to the larger number (e.g. $102 - 97$).

Identify near doubles, using doubles already known (e.g. $80 + 81$).

Add mentally a 'near multiple of 10' to or from a two-digit number by adding 10, 20, 30... and adjusting.

Subtract mentally a 'near multiple of 10' to or from a two-digit number by subtracting 10, 20, 30... and adjusting.

Use patterns of similar calculations eg $4-3=$, $14-3=$ to derive $84-3$.

Say or write a subtraction statement corresponding to a given addition statement, and vice versa.

Use known number facts and place value to add/subtract mentally eg different number sentences linking 5,8,13.

Add or subtract a single digit to or from any three-digit number without crossing the tens boundary eg $532+5$.

Add a two-digit number to a multiple of hundred.

Subtract a single digit from a multiple of hundred.

Begin to add a two-digit number to a multiple of ten, crossing 100.

Add a pair of teens numbers without crossing the tens boundary or 100.

Subtract a pair of teens numbers without crossing the tens boundary or 100.

Add 10 to or from any two-or three-digit number including crossing the hundreds boundary.

Subtract 10 to or from any two-or three-digit number including crossing the

hundreds boundary.

Begin to subtract or add a pair of multiples of 10, crossing 100.

Find what must be added to a three-digit multiple of 10 to make the next higher multiple of 100.

Add or subtract a multiple of 10 to or from a two-digit number, crossing 100.

Add or subtract a pair of multiples of 100, crossing 1000.

Bridge through a multiple of 10, then adjust.

Consolidate subtracting a single digit from a 'teens' number, crossing 10.

Add or subtract a single digit to/from a two-digit number, crossing the tens boundary.

Find a small difference between a pair of numbers lying each side of a multiple of 100 from 100 to 1000.

Begin to add or subtract any pair of two-digit numbers.

PENCIL AND PAPER PROCEDURES (+ AND -)

Use informal pencil and paper methods to support, record or explain partial mental jottings. Discuss and compare methods and explain how they work. Start with TU + TU, then HTU+TU or HTU + HTU using jumps of 100, 10 or 1, then by adding the most (or least) significant number first.

Begin to use column addition for HTU + TU where the calculation cannot easily be done mentally.

Begin to use column subtraction for HTU - TU where the calculation cannot easily be done mentally.

Use informal pencil and paper methods to support, record or explain partial mental jottings.

Discuss and compare methods and explain how they work. Start with TU-TU, developing to HTU-TU or HTU-HTU. Do this first not crossing the tens or hundreds boundary, then crossing either the tens or the hundreds. Do first by counting up from the smaller to the bigger (complementary addition), then by compensation (take too much off, add back), then by decomposition.

UNDERSTANDING MULTIPLICATION AND DIVISION

Read *double, times, multiply, multiplied by, multiple of, lots of, groups of, times as (big, long, wide...)* and read and write the *x* sign; *share, halve, divide, divided by, equal groups of, left over, remainder, the sign ÷* and understand that $\frac{1}{2}$ means one divided into two parts.

Begin to write the above vocabulary.

Understand multiplication as repeated addition.

Extend understanding that multiplication can be done in any order.

Understand division as grouping (repeated subtraction) or sharing.

Recognise that division is the inverse of multiplication.

Use counters for sharing.

Use a number line for division by repeated subtraction.

Use mental strategies for dividing larger two-digit numbers by 1-12.

Use the \times , \div and $=$ signs to record mental calculations in a number sentence.

Recognise the use of a symbol such as \pounds or \pounds to stand for an unknown number involving \times or \div .

Begin to find remainders after simple division, expressing them in whole numbers.

Round up or down after division, depending on the context.

RAPID RECALL OF MULTIPLICATION AND DIVISION FACTS

Use *double, twice, half, halve, whole, divide by two, divide into two etc* and know that $\frac{1}{2}$ is one half.

Read the above vocabulary.

Begin to write the above vocabulary.

Know by heart multiplication facts for the 2 times-table.

Know by heart multiplication facts for the 5 times-table.

Know by heart multiplication facts for the 10 times-table.

Begin to know the 3 times-table.

Begin to know the 4 times-table.

Derive quickly division facts corresponding to the 2 times-tables.

Derive quickly division facts corresponding to the 5 times-tables.

Derive quickly division facts corresponding to the 10 times-tables.

Derive quickly doubles of all whole numbers to at least 20 (e.g. $17 + 17$ or 17×2).

Derive quickly doubles of multiples of 5 to 100 (e.g. 75×2 , 90×2).

Derive quickly doubles of multiples of 50 to 500 (e.g. 450×2).

Derive halves quickly eg $36 \div 2$, half of 130, $900 \div 2$).

MENTAL CALCULATION STRATEGIES (x and ÷)

To multiply by 10/100, shift the digits one/two places to the left, observing the patterns made by successive multiplying by 10 eg 3×10 , $3 \times 10 \times 10$ etc.

Use doubling or halving, starting from known facts (e.g. 8×4 is double 4×4).

Find a quarter of a number as a half of a half.

Say or write a division statement corresponding to a given multiplication statement.

Use known number facts and place value to carry out mentally simple multiplications.

Use known number facts and place value to carry out mentally simple divisions.

Multiply a single digit by 1, 10 or 100.

Divide a three-digit multiple of 100 by 10 or 100.

Double any multiple of 5 up to 50.

Halve any multiple of 10 to 100.

Multiply a two-digit multiple of 10 up to 50 by 2, 3, 4, 5 or 10.

Multiply a two-digit number by 2, 3, 4 or 5 without crossing the tens boundary.

CHECKING THE RESULTS OF CALCULATIONS

Check subtraction with addition, halving with doubling and division with multiplication.

Repeat addition or multiplication in a different order.

Check with an equivalent calculation.

SOLVING PROBLEMS

MAKING DECISIONS

Use *operation, sign, symbol, number sentence, equation*.

Read the above vocabulary.

Begin to write the above vocabulary.

Choose and use appropriate operations (including multiplication and division) to solve word problems, and appropriate ways of calculating: mental, mental with jottings, pencil and paper.

Decide what equipment will be needed eg cubes, squared paper, 100 square, coins etc.

Explain how the problem was solved.

REASONING ABOUT NUMBERS OR SHAPES

Solve mathematical problems or puzzles, recognise simple patterns and relationships, generalise and predict.

Suggest extensions by asking 'What if...?' or 'What could I try next?'

Investigate a general statement about familiar numbers or shapes by finding examples that satisfy it.

Explain methods and reasoning orally and, where appropriate, in writing.

PROBLEMS INVOLVING 'REAL LIFE', MONEY OR MEASURES.

Use mental addition and subtraction, simple multiplication and division, to solve simple word problems involving money in real life', money or measures using one or two steps and explaining how the problem was solved.

MONEY

Use coin, pound, £, pence, note, price, cost, cheaper, more/less expensive, pay, change, total, how much?

Read the above vocabulary.

Begin to write the above vocabulary.

Recognise all coins and £20, £10 and £5 notes.

Exchange a note for its equivalent value in smaller notes or in £2 and £1 coins.

Understand and use £.p notation (for example, know that £3.06 is £3 and 6p).

Find totals, give change, and work out which coins to pay.

MEASURES, SHAPE AND SPACE

MEASURES

Read long, short, tall, high, low, wide, narrow, deep, shallow, thick, thin, far, near, close, weight, weighs, heavy, light, balances, full, empty, holds, distance, roughly, nearly, about, approximately.

Begin to write the above vocabulary.

Know that-

1 kilometre = 1000 metres

1 metre = 1000 centimeters

1 metre = 1000 centimeters

1 kilogram = 1000 grams

1 litre = 1000 millilitres

Begin to use decimal notation for metres and centimetres.

Estimate, measure and compare lengths in km.

Estimate, measure and compare masses using g.

Estimate, measure and compare capacities, using millilitres.

For a variety of practical situations, correctly select km, m, cm, kg, g, ml or l.

Read scales to the nearest division (labeled or unlabelled).

Record estimates and measurements to the nearest whole or half unit (e.g. 'about 3.5 kg'), or in mixed units (e.g. '3 m and 20 cm').

Use a ruler to draw and measure lines to the nearest half centimetre.

Solve simple problems incorporating these units, using one or two steps, explaining reasoning and, where appropriate, writing a number sentence.

TIME

Read names of the days of the week, names of the months, seasons of the year, second, minute, hour, day, week, fortnight, month, year, date, century, calendar, season, morning, afternoon, evening, night, midnight, weekend, today, yesterday, a.m., p.m., tomorrow, now, soon, early, late, before, after, first, second, next, quick, fast, slow, how long ago?, how long will it be to...?, how long will it take to...?, how often...?, always, never, often, sometimes, usually, once, twice, and comparatives such as faster, slower, takes longer etc.

Begin to write the above vocabulary.

Suggest suitable Year 3 units to estimate or measure time and use them in practical contexts.

Use a calendar to find the date.

Write the date correctly.

Know birthdate (d/m/y).

Know 1 year = 365 days	1 year = 52 weeks
1 year = 12 months	1 week = 7 days
1 day = 24 hours	1 hour = 60 minutes
1 minute = 60 secs.	

Use mental strategies to solve simple problems incorporating these units.

Read the time to 5 minutes on an analogue clock.

Read the time to 5 minutes on a 12-hour digital clock

SHAPE AND SPACE

Use shape, pattern, flat, solid, hollow, side, edge, face, straight, curved, round, point, pointed, corner, sort, draw, make, build, circular, triangular, rectangular, surface, circular, triangular, rectangular, surface.

Read the above vocabulary.

Begin to write the above vocabulary.

Use the mathematical names for hemisphere, prism, semi-circle, quadrilateral.

Classify and describe 3-D and 2-D shapes, including the hemisphere, prism, semi-circle, quadrilateral, referring to properties such as reflective symmetry (2-D), the number or shapes of faces, the number of sides/edges and vertices, whether sides/edges are the same length, whether or not angles are right angles.

Make and describe shapes and patterns: for example, explore the different shapes that can be made from four cubes; fold and cut paper to make squares, octagons and stars; put 2 identical 2D shapes together and describe the new shape.

Use a programmable robot to draw rectilinear shapes.

Relate solid shapes to pictures of them.

Make 3D shapes from provided nets.

SYMMETRY

Use *fold, match, mirror line, reflection, symmetrical*.

Read the above vocabulary.

Begin to write the above vocabulary.

Identify and sketch **lines of symmetry in simple shapes** with more than one line.

Recognise shapes with no lines of symmetry.

Sketch the reflection of a simple shape in a mirror line along one edge.

POSITION AND MOVEMENT

Use *position, over, under, underneath, above, below, on, in, outside, inside, in front, behind, beside, before, after, next to, opposite, between, close, far apart, middle, edge, corner, centre, top, bottom, side, direction, left, right, up, down, forwards, backwards, sideways, across, along, around, through, to, from, towards, away from, journey, higher, lower, clockwise, anti-clockwise, route, grid, row, column, map, plan, compass point, north, south, east, west, horizontal, vertical, diagonal, descend, ascend*.

Read the above vocabulary.

Begin to write the above vocabulary.

Describe and find the position of a square on a grid of squares with the rows labeled in numbers and columns labeled in letters.

Recognise and use the four compass directions N, S, E, W.

Describe movement on squared paper in terms of number of squares and N/S/E/W direction.

Use *slide, roll, turn, whole turn, half turn, quarter turn, right angle, straight line*, and be able to say that *an angle is greater/smaller than...*

Read the above vocabulary.

Begin to write the above vocabulary.

Make and describe right- angled turns clockwise and anti-clockwise.

Make and describe right-angled turns, including turns between the four compass points.

Know a straight line is two right angles.

Identify right angles in 2-D shapes and the environment.

Sort shapes according to their right angles.

Recognise that a straight line is equivalent to two right angles.

Compare angles with a right angle ie bigger/same/smaller.

Use a tiling computer programme to create a pattern which is repeated along a line. Reflect the tile in one axis, and describe how the pattern changes.

ORGANISING AND USING DATA

Use *sort, set, graph, represent, chart, pictogram, diagram, table, list, count, tally, axis, label, title, most/least, common/popular.*

Read the above vocabulary.

Begin to write the above vocabulary.

Solve a given problem by organising and interpreting numerical data in simple lists, tables and graphs,

Interpret an 8-branch decision tree.

Interpret simple frequency tables eg number of votes for different TV programmes.

Create simple frequency tables eg number of votes for different TV programmes.

Interpret pictograms – symbol representing two units.

Create pictograms – symbol representing two units.

Interpret bar charts – intervals labeled in ones.

Interpret bar charts – intervals labeled in twos.

Create bar charts – intervals labeled in ones.

Create bar charts – intervals labeled in twos.

Venn diagram eg loop for squares inside a rectangle for all shapes.

Carroll diagrams eg even/not even (no horizontal criteria)