

Y3-4 Learning Sequence

Numbers to 10,000

Learning Steps

Prior learning check & remediation/deepening of prior

Composition of 100
Represent numbers to 1,000
Partition numbers to 1,000
Value of digits to 1,000
Number lines to 1,000

PS Lesson: value of digits (more than one possibility)

Measure length in m and cm
Measure length in mm and cm
Equivalent lengths
Compare lengths

PS Lesson: length (real-life word)

Composition of 1,000
Represent numbers to 10,000
Partition numbers to 10,000
Value of digits to 10,000
Number lines to 10,000
1, 10, 100, 1000 more & less

PS Lesson: PV and value of digits (more than possibility)

Compare two numbers using $<$ $>$ $=$
Order sets of numbers

PS Lesson: order and compare (logic)

Measure mass from zero up to 1kg using grams
Measure mass from zero above 1kg using whole kg and grams
Measure volume from zero up to 1 litre using ml
Measure volume from zero above 1 litre using whole litres and ml

PS Lesson: mass/capacity (real-life word)

Round to nearest 10
Round to nearest 100
Round to nearest 1,000
Round to the nearest 10, 100 & 1,000

PS Lesson: rounding (working backwards)

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: trial & improvement

Y3-4 Learning Sequence

Right Angles, Parallel & Perpendicular (Year A)

Learning Steps

Prior learning check & remediation/deepening of prior

Rotate two lines around a fixed point to make different sized angles

A right angle is a 'square corner' and perpendicular

Investigate and draw other polygons with right angles

PS Lesson: right angles (visual problems)

Horizontal and vertical

Parallel lines

Quadrilaterals and their parallel sides

Perpendicular lines

Quadrilaterals and their perpendicular sides

PS Lesson: parallel & perpendicular (logic)

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: working collaboratively

Y3-4 Learning Sequence

Geometric Reasoning (Year B)

Learning Steps

Prior learning check & remediation/deepening of prior

- Read coordinates in the first quadrant
- Plot coordinates in the first quadrant
- Translate on a grid
- Describe a translation
- Complete a symmetrical pattern
- Compose a symmetrical shape from 2 congruent shapes
- Folding & mirrors for symmetry
- Reflecting polygons over a line of symmetry
- Triangles
- Symmetry in triangles
- Reflecting with coordinates

Assessment

Pause & Stretch: re-assessment & deepening as required

Y3-4 Learning Sequence

Addition & Subtraction

Learning Steps

Prior learning check & remediation/deepening of prior

Place value mental addition method
 Near doubles addition
 Near 10s addition
 Partition addition
 Addition of 2-digit: no regrouping
 Addition of 3-digit: no regrouping
 Addition of 3 digit: regrouping 1s to a 10
 Addition of 3 digit: regrouping 10s to a 100
 Addition of 3 digit: multiple regrouping
 Column addition practice – VF, Think - GDS
 Addition of 4 digit: same PV
 Addition of 4 digit: different PV
 Addition strategy choice

PS Lesson: addition (multi-step)

Place value mental subtraction method
 Near 10s subtraction
 Partition subtraction
 Subtraction of 2-digit: no exchanging
 Subtraction of 2-digit: exchanging 10 for 1s
 Subtraction of 3-digit: exchanging 10 for 1s
 Subtraction of 3-digit: exchanging 100 for 10s
 Subtraction of 3-digit: multiple exchanging
 Column addition practice – VF, Think - GDS
 Subtraction of 4 digit: same PV
 Subtraction of 4 digit: different PV
 Subtraction strategy choice

Mixed column addition and subtraction practice

PS Lesson: subtraction (multi-step)

Approximation to check
 Inverse to check

Assessment

Pause & Stretch: re-assessment & deepening as required

Y3-4 Learning Sequence

Perimeter (Year A)

Learning Steps

Prior learning check & remediation/deepening of prior

Polygon v not

Regular v irregular polygons

What is perimeter?

Calculating rectilinear perimeter $(2L + 2B)$

Calculating rectilinear perimeter $2(L + B)$

Finding unknown lengths using known lengths and perimeter

Calculating regular shape perimeter using multiplication & division

PS Lesson: perimeter (working backwards)

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: finding starting points

Y3-4 Learning Sequence

Time (Year B)

Learning Steps

Prior learning check & remediation/deepening of prior

Direction of turns

O'clock

Half-past

Quarter past

Quarter to

5 minutes past intervals

5 minutes to intervals

PS Lesson: reading time (visual)

Time durations: given start and finish

Time durations: given start and duration

Time durations: given finish and duration

Match analogue time to digital time

Use am and pm

PS Lesson: time (working backwards)

Assessment

Pause & Stretch: re-assessment & deepening as required

Y3-4 Learning Sequence

Multiplication & Division

Learning Steps

Prior learning check & remediation/deepening of prior

- x4 counting & repeated addition
- x4 deriving facts from x2 table
- x4 using adjacent facts
- x4 commutative property
- x4 distributive property
- x4 inverse facts
- x8 counting & repeated addition
- x8 deriving facts from x4 table
- x8 distributive property
- x8 inverse facts
- x3 counting & repeated addition
- x3 distributive property
- x3 inverse facts
- x6 counting & repeated addition
- x6 deriving facts from x3 table
- x6 distributive property
- x6 inverse facts
- x9 counting & repeated addition
- x9 deriving facts from x3 and x6 table
- x9 distributive property
- x9 inverse facts
- x7 counting & repeated addition
- x7 distributive property
- x7 inverse facts
- Scaled multiplication facts
- Scaled division facts
- Multiplying by 10 moving digits
- Multiplying by 100 moving digits
- Divide by 10 moving digits
- Divide by 100 moving digits

Mixed practice lesson multiplying and dividing by 10/100

PS Lesson: multiplying and dividing by powers of 10 (open-ended)

- Using known facts multiplication – scale of 10
- Using known facts multiplication – scale of 100
- Using known facts division – scale of 10
- Using known facts division – scale of 100

Mixed practice Lesson – scaled multiplication & division facts

PS Lesson: place value and known facts (working backwards)

Interpret a division story with a remainder and represent it as an equation

Division with remainders

When there will and will not be a remainder in a division equation

PS Lesson: interpret remainders (working backwards)

- Partition mental multiplication Strategy
- Double & half mental multiplication strategy
- Partitioning as a mental division strategy

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: visualising

Y3-4 Learning Sequence

Fractions

Learning Steps

Prior learning check & remediation/deepening of prior

- Fraction notation for unit fractions
- Order unit fractions by size of denominator
- Find unit fractions of amounts
- Repeated addition of unit fractions to form unit fractions then a whole
- Identify non-unit fractions
- Order non-unit fractions with the same denominator
- Order non-unit fractions with the same numerator
- Add fractions with the same denominator
- Subtract fractions with the same denominator
- Subtract a fraction from the whole by converting the whole into matching denominator

PS Lesson: non-unit fractions (open-ended)

- Understand mixed numbers
- Understand mixed numbers on a number line
- Understand improper fractions
- Convert improper fractions into mixed numbers
- Convert mixed numbers into improper fractions

PS Lesson: mixed/improper (real-life word)

- Compare and order mixed when whole number and the denominator of the fractional part is the same
- Compare mixed numbers when the whole number and the numerator of the fractional part is the same
- Add proper fractions through the whole
- Add mixed numbers not bridging the whole
- Add mixed numbers bridging the whole
- Add mixed numbers using number lines
- Subtract proper fractions from wholes
- Subtract proper fractions from mixed numbers – not bridging the whole
- Subtract proper fractions from mixed numbers – bridging the whole
- Subtract mixed numbers from mixed numbers – not bridging the whole
- Subtract mixed numbers from mixed numbers – bridging the whole
- Find the difference between mixed numbers using number lines

PS Lesson: add and subtract mixed numbers (multi-step)

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: conjecture & generalising