Y5 Learning Sequence

Decimal Fractions

Learning Steps
Prior learning check & remediation/deepening of prior
Tenths as decimals
Integers & Tenths As Decimals
Partition numbers with tenths
Compare numbers with tenths
Order numbers with tenths
Bridging the whole when adding with tenths
Mental methods for addition involving tenths – not bridging
Mental methods for addition involving tenths – bridging
Bridging the whole when subtracting with tenths
Mental methods for subtraction involving tenths – not bridging
Mental methods for subtraction involving tenths –bridging
Column addition and subtraction involving tenths
Round numbers with tenths to nearest whole
PS Lesson: tenths (real-life)
hundredths as decimals & partitioning
Compare and order numbers with hundredths + money
Round numbers with hundredths to nearest whole
Round numbers with hundredths to nearest tenth
Column addition and subtraction involving hundredths
PS Lesson: hundredths (more than one possibility)
Thousands as decimals and value of digits & partition
Compare & order numbers with thousandths
Assessment
Pause & Stretch: re-assessment & deepening as required

Y5 Learning Sequence

Negative Numbers

Learning Steps
Prior learning check & remediation/deepening of prior
What are negative numbers?
Understand counting through zero into negative numbers including number line in ones
Count through zero in other multiples including number lines
Compare and order numbers including negative numbers
Increases through zero
Decreases through zero
Find the difference
PS Lesson: negative numbers (multi-step)
Read coordinates in all 4 quadrants
Plot coordinates in all 4 quadrants
Translate in all 4 quadrants
Reflect in all 4 quadrants
PS Lesson: coordinates (logic)
Charts involving negative numbers
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: trial & improvement

Y5 Learning Sequence

Short Multiplication & Short Division

Learning Steps
Prior learning check & remediation/deepening of prior
Mental method partition for TO by O multiplication
2 x 1 column into 3 x 1 into 4 x1 with no regrouping
2 x 1 column into 3 x 1 into 4 x1 with one regrouping
2 x 1 column into 3 x 1 into 4 x1 with two regrouping
2 x 1 column into 3 x 1 into 4 x1 with multiple regrouping
Short Multiplication Practice Lesson
Most efficient method – mental v written
Missing Digit Calculations
PS Lesson: short multiplication (real-life)
Mental method flexible partition for TO ÷ O multiplication
2 x 1 into 3 x 1 into 4 x1 with no remainder or regrouping
2 x 1 into 3 x 1 into 4 x1 with remainder at end but no regrouping
2 x 1 into 3 x 1 into 4 x1 with 1 piece of regrouping
2 x 1 into 3 x 1 into 4 x1 with more than 1 piece of regrouping
Short Division Practice Lesson
Understanding and using remainders
Remainders as fractions
Most efficient method: mental v written
Missing Digit Calculations
PS Lesson: short division (multi-step)
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: working collaboratively

Y5 Learning Sequence

Area

Learning Steps
Prior learning check & remediation/deepening of prior
What is area?
Rectangle area counting squares
Rectangle area using formula & squares
Rectangle area using formula
L-shape using formula
More complex compound using formula
Missing dimensions
Area using half-squares
PS Lesson: different shapes; same area
Area of parallelograms
Area of triangles
Area – mixed practice
PS Lesson: area
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: working systematically

Y5 Learning Sequence

Calculating With Decimal Fractions

Learning Steps
Prior learning check & remediation/deepening of prior
Multiply numbers with decimals by 10, 100, 1000 using moving digits
Convert from larger to smaller metric units
Divide numbers with decimals by 10, 100, 1000 using moving digits
Convert from smaller to larger metric units
Converting units practice lesson
PS Lesson: moving digits for decimals (multi-domain / real-life word / multi-step)
Scaled multiplication facts – 1DP
Scaled multiplication facts – 2DP
Multiplying numbers with 1DP by ones using mental methods
Multiplying numbers with 1DP by ones using written methods
Multiplying numbers with 2DP by ones using written methods
Varied practice and think for multiplying decimals
Multiplying by 0.1 and dividing by 10 have the same effect
Multiplying by 0.01 and dividing by 100 have the same effect
Scaled division facts – 1DP
Scaled division facts – 2DP
Short division – decimal dividends
Short division – decimal dividends – varied practice
PS Lesson: multiplying & dividing decimals (open-ended)
Assessment
Pause & Stretch: re-assessment & deepening as required

Y5 Learning Sequence

Factors, Multiples & Primes

Learning Steps
Prior learning check & remediation/deepening of prior
What is volume?
Cubes to measure volume
Calculating the volume of cubes and cuboids
Square numbers
Cube numbers
Missing volume measurement problems
Multiplying 3 numbers together using the commutative & distributive properties
Replacing 2-factor multiplication with 3-factor multiplication
PS Lesson: volume (working backwards)
Find all factors of a number
Common factors
Prime numbers & composite numbers
Prime factors
PS Lesson: prime numbers (investigations)
Common multiples
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: finding starting points

Y5 Learning Sequence

Fractions

Learning Steps
Prior learning check & remediation/deepening of prior
Relationship between repeated addition of unit fractions & multiplication
Relationship between repeated addition of non-unit fractions & multiplication
Multiply a proper fraction by whole within the whole
Multiply fraction by whole beyond the whole
Multiply improper by whole and convert
VF – Think – GDS multiplying proper fractions by whole numbers
Multiply mixed by whole (no crossing whole)
Multiply mixed by whole (crossing whole)
Multiply mixed numbers by wholes – mental or written method required
VF – Think – GDS multiplying mixed numbers by whole numbers
PS Lesson: multiplying fractions (more than one possibility)
Multiply fractions by fractions
Multiply fractions by fractions VF, Think, GDS
Divide a fraction by integer (numerator-divisor match)
Divide any fraction by integer (pictorial method)
Divide any fraction by integer (formal method)
PS Lesson: multiplying and dividing fractions (investigations)
Mixed practice of calculating with fractions
Find unit fractions of amounts
Find the whole when a unit fraction and amount are given
Non-unit fractions of amounts (bar model)
Non-unit fractions of amounts (mental methods)
VF – Think – GDS non-unit fractions of amounts
Find a unit fraction from a non-unit fraction
Find the whole from a non-unit fraction (pictorial)
Find the whole from a non-unit fraction (bar model)
Mixed fraction of amount practice
Fractions as operators
PS Lesson: fractions of amounts (multi-domain / real-life word / multi-step)
Equivalent fractions using manipulatives (quarters, eighths and twelfths)
Equivalent fractions using manipulatives (fifths, tenths and thirds)
Using equivalence tables – scaling up
Using equivalence tables – scaling down
Fraction-decimal equivalence to tenths
Fraction-decimal equivalence to hundredths
Fraction – Decimal Equivalence
Converting decimals to fractions
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: visualising

Y5 Learning Sequence

Angles

Learning Steps
Prior learning check & remediation/deepening of prior
Classify angles as right, acute, obtuse or reflex
Order angles where there is a clear visual difference
Read angles on a protractor
Measure angles with a protractor
Draw angles with a protractor
Draw accurate 2D shapes
PS Lesson: investigating regular internal polygon angles
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: conjecture & generalising