Maths Curriculum Sequence
Year 5

- Place Value
- Negative Numbers
- Position & Direction
- Addition & Subtraction
- Short Multiplication & Short Division
- Assessment
- Area & Scaling
- Calculating With Decimal Fractions
- Factors, Multiples, Primes, Squares, Cubes & Area
- Summative Assessment
- Fractions
- Converting Units
- Angles
- Summative Assessment
- Consolidation

- Number, Place Value, Calculations, Fractions
- Geometry
- Measurement
- Statistics
- Assessment

Y5 Maths Plan

Place Value

Do **NOT** start the unit until **ALL** children have passed the prior learning check.
These are **NOT** lessons but learning steps and each one takes as long as it takes for **ALL** children to be secure.
Do **NOT** move on to the next learning step until **ALL** children can do it.
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Learning Steps
Prior learning check & remediation/deepening of prior
Represent and know value of digits to 1,000,000
Partition numbers to 1,000,000
Value of digits to 1,000,000
Number Lines to 1,000,000
1, 10, 100, 1000, 10,000, 100,000 more/less
Compare two numbers using < > = to 7-digit
Order sets of numbers to 7-digit
PS Lesson: compare, order (all possibilities)
Round 4-digit numbers to nearest 10, 100, 1000
Round to any given amount up to 7-digit
PS Lesson: rounding (multi-domain)
Assessment
Pause & Stretch: re-assessment & deepening as required

Y5 Maths Plan

Negative Numbers

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Learning Steps
Prior learning check & remediation/deepening of prior
Negative Numbers Practical
Understand counting through zero into negative numbers including number line in ones
Count through zero in other multiples
Compare and order numbers including negative numbers
Increases through zero
Decreases through zero
Find the difference
PS Lesson: negative numbers (visual)
Assessment
Pause & Stretch: re-assessment & deepening as required

Y5 Maths Plan

Position & Direction

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Learning Steps
Prior learning check & remediation/deepening of prior
Read coordinates in the first quadrant
PS Lesson: coordinates (logic)
Translating coordinates
Translate a shape including coordinates
PS Lesson: translations (more than one possibility)
Reflecting patterns
Reflections including coordinates
PS Lesson: reflections (logic)
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: trial & improvement

Y5 Maths Plan

Addition & Subtraction

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Learning Steps
Prior learning check & remediation/deepening of prior
Column addition of 5-digit or more numbers with regrouping
Column addition of 5-digit or more numbers with regrouping & mixed PV
Column subtract of 5-digit or more numbers with exchange
Column subtract of 5-digit or more numbers with exchange & mixed PV
Most efficient method (mixed)
PS Lesson: addition & subtraction (multi-step/multi-domain)
Missing digit calculations
Missing number equations
Balancing number equations
Approximation to check
Inverse to check
Assessment
Pause & Stretch: re-assessment & deepening as required

Y5 Maths Plan

Short Division & Short Multiplication

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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
Most efficient method – mental v written
Missing Digit Calculations
PS Lesson: short multiplication (open-ended)
Mental method flexible partition for TO ÷ O multiplication
2 x 1 into 3 x 1 into 4 x1 with no remainder at all
2 x 1 into 3 x 1 into 4 x1 with remainder at end
2 x 1 into 3 x 1 into 4 x1 with one remainder within
2 x 1 into 3 x 1 into 4 x1 with more than one remainder within
Most efficient method: mental v written
Missing Digit Calculations
PS Lesson: short division (rules and patterns)
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: working collaboratively

Y5 Maths Plan

Area

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Learning Steps
Prior learning check & remediation/deepening of prior
Rectangle area counting squares
Rectangle area formula
L-shape formula
More complex compound formula
Missing whole length
Missing part length
Mixed missing measurements
Arae using half-squares
PS Lesson: area (investigations)
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: working systematically

Y5 Maths Plan

Calculating With Decimal Fractions

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Learning Steps
Prior learning check & remediation/deepening of prior
Multiply numbers with decimals by 10, 100, 1000 using moving digits
Divide numbers with decimals by 10, 100, 1000 using moving digits
PS Lesson: moving digits for decimals (multi-domain / real-life word / multi-step)
Mental methods for O.t x O
Written methods for O.t x O
Mental methods for O.t x O
Written methods for O.t x O
Decimal Out / PV to multiply a decimal
Decimal Out / PV to divide a decimal
Most efficient method for dividing and multiplying with decimals
PS Lesson: calculating with decimals (multi-domain / real-life word / multi-step)
Assessment
Pause & Stretch: re-assessment & deepening as required

Y5 Maths Plan

Multiples, Squares, Factors, Primes, Cubes & Volume

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Learning Steps
Prior learning check & remediation/deepening of prior
Multiples including arrays
Common multiples including arrays
Square Numbers including arrays
Factors including arrays
Common factors including arrays
PS Lesson: multiples, squares and factors (investigations / all possibilities)
Prime Numbers including arrays
Prime Numbers
PS Lesson: prime numbers (investigations / all possibilities)
Cube numbers
Commutativity and multiplying 3 numbers
Volume through cubes
Volume of cubes and cuboids through formula
PS Lesson: volume (working backwards)
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: finding starting points

Y5 Maths Plan
Fractions

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Learning Steps
Prior learning check & remediation/deepening of prior
Mixed / Improper Recap
Repeated addition of proper fractions
Repeated addition alongside multiplication within whole
Multiply fraction by whole within whole including commutativity
Multiply fraction by whole beyond whole including commutativity
Multiply improper by whole and convert
Multiply mixed by whole (no crossing whole)
Multiply mixed by whole (crossing whole)
PS Lesson: multiplying fractions (more than one possibility)
Non-unit fractions of amounts
Non-unit fractions of amounts
PS Lesson: fractions of amounts (multi-domain / real-life word / multi-step)
Linking fractions of amounts to multiplication
Practical Lesson: equivalent fractions
Equivalent fractions through simplifying down
Equivalent fractions through simplifying down
Equivalent fractions through scaling up
Equivalent fractions through scaling up
PS Lesson: equivalent fractions (rules and patterns)
Practical Lesson: common fraction decimal equivalence
common fraction decimal equivalence
common fraction decimal equivalence
PS Lesson: common fraction decimal equivalence (rules and patterns)
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: visualising

Y5 Maths Plan

Converting Units

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Learning Steps
Prior learning check & remediation/deepening of prior
Underlying metric conversion facts
Convert from larger to smaller metric units – no decimals
Convert from smaller to smaller metric units– no decimals
Convert from larger to smaller metric units – decimals
Convert from smaller to smaller metric units – decimals
PS Lesson: metric conversion (real-life, multi-step)
Convert between metric and imperial including miles and KM
Convert from larger to smaller units of time
Convert from smaller to larger units of time
PS Lesson: time conversion (multi-domain)
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: visualising

Y5 Maths Plan
Angles

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Learning Steps
Prior learning check & remediation/deepening of prior
Classify angles as right, acute or obtuse
Classify angles as right, acute or obtuse within shapes
Degrees and estimation
Measure acute angles
Measure acute angles in shapes
Measure obtuse angles
Measure obtuse angles in shapes
Measure reflex angles
Draw acute angles
Draw obtuse angles
Draw accurate 2D shapes
Calculate missing angles from right angles
Calculate missing angles from straight lines
Calculate missing angles from triangles angles
Calculate missing angles from whole turns
Calculate vertically opposite angles
PS Lesson: missing angles (visual problems)
Assessment
Pause & Stretch: re-assessment & deepening as required
PS Skills Lesson: generalising & conjecturing