

Y5-6 Learning Sequences

Place Value

Learning Steps

Prior learning check & remediation/deepening of prior

- Composition of 10,000
- Composition of 100,000
- Composition of 1,000,000
- Position numbers to 10,000 on a number line
- Position numbers to 100,000 on a number line
- Position numbers to 1,000,000 on a number line
- Count forwards and backwards in powers of ten to 1,000,000
- Represent numbers to 10,000,000
- Partition numbers to 10,000,000
- Value of digits to 10,000,000
- Number lines to 10,000,000
- Compare numbers to 10,000,000 (same PV)
- Compare numbers to 10,000,000 (different PV)
- Order numbers to 10,000,000

PS Lesson: PV to 1,000,000 (all possibilities)

round any 4-digit number to the nearest 10, 100, 1000

round up to seven-digit numbers to any power of 10

PS Lesson: rounding (multi-domain)

Written column addition to 10,000,000

Written column subtraction to 10,000,000

PS Lesson: column addition & subtraction (multi-step)

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: trial & improvement

Y5-6 Learning Sequence

Negative Numbers

Learning Steps

Prior learning check & remediation/deepening of prior

Count through zero in ones and other multiples including number lines

Compare and order numbers including negative numbers

Increases through zero

Decreases through zero

Find the difference

Graphs involving negative numbers

Assessment

Pause & Stretch: re-assessment & deepening as required

Learning steps inside ** (e.g. *divide fractions by integers*) are lessons that will have been covered in Y6 Fact Fluency therefore the lessons could be adapted to a reminder of the procedure and straight onto VF, Think, GDS. These learning steps could be skipped if time is short before SATs – as long as secured in Y6 Fact Fluency.

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

Column addition and subtraction involving tenths

Round numbers with tenths to nearest whole

hundredths as decimals and value of digits & partition

Compare & 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

Thousands as decimals and value of digits & partition

Compare & order numbers with thousandths

Assessment

Pause & Stretch: re-assessment & deepening as required

Learning Steps

Prior learning check & remediation/deepening of prior

Moving digit multiplication
Convert large metric units to smaller
Moving digit division
Convert small metric units to larger
Converting units practice lesson
Short multiplication no regrouping
Short multiplication one regrouping
Short multiplication two regroupings
Short multiplication multiple regroupings
Short multiplication practice lesson
Multiplying tenths using a written method
Multiplying hundredths using a written method
Multiplying decimals practice lesson
Long multiplication no regrouping
Long multiplication one regrouping
Long multiplication two regroupings
Long multiplication multiple regroupings
Long multiplication practice lesson
Short division no remainders or regrouping
Short division remainder but no regrouping
Short division one regrouping
Short division more than one regrouping
Short division practice lesson
Short division of decimal dividends
Short division of decimal dividends practice lesson
Multiple strings
Long division no remainders 1
Long division no remainders 2
Long division remainders
Long division practice

PS Lesson: long division

Assessment

Pause & Stretch: re-assessment & deepening as required

Learning steps in green can be skipped if already covered in arithmetic.

Learning Steps

Prior learning check & remediation/deepening of prior

- What is percentage
- Percentages of amounts multiples of 25%, 50%, 75%
- Percentages of amounts 10%
- Percentages of amounts multiples of 10%
- Percentages of amounts 5%
- Percentages of amounts multiples of 5%
- Percentages of amounts 1%
- Finding percentages of amounts – multiples of 1%
- Percentages of amounts – VF, Think, GDS
- Multiply fractions by integers - pictorial
- Multiply fractions by integers – formal algorithm
- Multiply mixed numbers by integers
- Multiply fractions by fractions
- Multiplying fractions – practice lesson
- Non-unit fractions of amounts (bar model)
- Non-unit fractions of amounts (mental methods)
- VF – Think – GDS non-unit fractions of amounts
- Fractions as operators
- Divide a fraction by integer (numerator-divisor match)
- Divide any fraction by integer (pictorial method)
- Divide any fraction by integer (formal method)
- 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
- FDP equivalence
- Percentages & fractions as operators
- Common factors
- Prime & composite numbers
- Simplifying fractions BF
- Simplifying fractions VF, Think, GDS
- Common multiples
- Comparing fractions BF
- Comparing fractions VF, Think, GDS
- Adding proper fractions
- Adding mixed numbers
- Practice Lesson: adding fractions (VF/Think/GDS)
- Subtracting fractions
- Subtracting mixed numbers (not breaking whole)
- Breaking the whole
- Subtracting mixed numbers (breaking whole)
- Practice Lesson: subtracting fractions (VF/Think/GDS)

Assessment

Pause & Stretch: re-assessment & deepening as required

Y5-6 Learning Sequence
Geometric Reasoning

Learning Steps

Prior learning check & remediation/deepening of prior

Measure acute angles including estimation

Measure obtuse angles including estimation

Draw angles

Draw accurate 2D shapes

Construct 3D shapes from 3D nets

PS Lesson: nets (visual problems)

Right angles: calculating missing angles

Straight lines: calculating missing angles

360° around a point: calculating missing angles

Measure reflex angles

Triangles: calculating missing angles

Quadrilaterals: calculating missing angles

Vertically opposite angles: calculating missing angles

Mixed practice: calculating missing angles

What is area?

Area of rectangles

Compound rectilinear area

Area of parallelograms

Area of triangles

PS Lesson: same area but different perimeter & vice-versa (more than 1 possibility)

Area of parallelograms

Area of triangles

Mixed area practice

Regular shape area

Estimating the area of irregular shapes

PS Lesson: area (multi-step)

Solving problems involving reading/plotting coordinates in all 4 quadrants

Solving problems involving translating coordinates in all 4 quadrants

Solving problems involving reflecting coordinates in all 4 quadrants

Features of a circle & radius and diameter relationship

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: visualising

Y5-6 Learning Sequences

Statistics

Learning Steps

Prior learning check & remediation/deepening of prior

- Interpret bar charts with different scales
- Interpret dual bar charts
- Interpret line charts
- Interpret dual line charts
- Interpret pie charts using angles, fractions and percentages
- The relationships between the mean and sharing equally
- Calculate the mean
- Explain how the mean changes when the total quantity or number of values changes
- Explain how to calculate the mean when one of the values in the data set is zero or missing
- Explain when the mean is not an appropriate representation of a set of data

Assessment

Pause & Stretch: re-assessment & deepening as required

Y5-6 Learning Sequences

Algebra

Learning Steps

Prior learning check & remediation/deepening of prior

1-step function machines
2-step function machines (output)
2-step function machines (input)
Missing Number Equations
Balancing Number Equations
Sequences
Form expressions
Algebraic expressions
Solve 1-step equations
Solve 2-step equations
Pairs of values

Assessment

Pause & Stretch: re-assessment & deepening as required

Y5-6 Learning Sequences

Proportional Reasoning

Learning Steps

Prior learning check & remediation/deepening of prior

Ratio tables
Language of ratio – scaling up
Language of ratio – simplest form
Real-life ratio problems
Recipes
Scale drawings
Scale factors
Miles & Kilometres
Correspondence problems

Assessment

Pause & Stretch: re-assessment & deepening as required