

Y6 Learning Sequences

Numbers to 10,000,000

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

Y6 Learning Sequences

Order of Operations

Learning Steps

Prior learning check & remediation/deepening of prior

Missing number equations

Balancing equations

Column addition– missing digits

Column subtraction – missing digits

Most efficient method

Order of Operations – no brackets or orders

Order of Operations – brackets & orders

Assessment

Pause & Stretch: re-assessment & deepening as required

Y6 Learning Sequences

Multiplication

Learning Steps

Prior learning check & remediation/deepening of prior

Moving digits multiplication including decimals

Convert large metric units to small

Convert large metric units to small

PS Lesson: converting units large to small (multi-step / visual)

Short multiplication refresh including decimals

Long multiplication with no regroup

Long multiplication with one regroup

Long multiplication with two regroup

Long multiplication with multiple regroup

Long multiplication Practice Lesson

PS Lesson: long multiplication (all possibilities)

Distributing for multiplying by a 2-digit number

Double and half to multiply without long multiplication

Factorisation to remove long multiplication

Most efficient method for multiplications

PS Lesson: multiplication (working backwards)

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: working collaboratively

Y6 Learning Sequences

Division

Learning Steps

Prior learning check & remediation/deepening of prior

Moving digits division including decimals

Convert small metric units to large

Short division: decimal dividends

Short division: decimal quotients (expressing remainders as decimals)

Short Division Practice Lesson (varied fluency and think)

PS Lesson: short division (word problems)

Building multiple strings (fact bank)

Long division – no remainder – divisor smaller than first 2 digits of dividend

Long division – no remainder – divisor larger than first 2 digits of dividend

Long division – remainders

Long division – remainders

Long division practice lesson (VF/RPS)

PS Lesson: long division (word problems)

Most efficient method for division

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: working systematically

Learning Steps

Prior learning check & remediation/deepening of prior

- Simplifying Fractions – Basic Fluency
- Simplifying Fractions – Practice (VF/Think)
- Compare related fractions
- Add related fractions not bridging the whole
- Add mixed numbers with related fractions not bridging the whole
- Add related fractions bridging the whole
- Add mixed numbers with related fractions bridging the whole
- Practice lesson adding related fractions – VF, Think, GDS
- Subtract related fractions not bridging whole
- Subtract mixed numbers with related fractions not bridging the whole
- Subtract related fractions bridging whole
- Subtract mixed numbers with related fractions bridging the whole
- Practice lesson subtracting related fractions – VF, Think, GDS
- Compare unrelated fractions
- Add unrelated fractions not bridging the whole
- Add mixed numbers with unrelated fractions not bridging the whole
- Add unrelated fractions bridging the whole
- Add mixed numbers with unrelated fractions bridging the whole
- Practice lesson adding unrelated fractions – VF, Think, GDS
- Subtract unrelated fractions not bridging whole
- Subtract mixed numbers with unrelated fractions not bridging the whole
- Subtract unrelated fractions bridging whole
- Subtract mixed numbers with unrelated fractions bridging the whole
- Practice lesson subtracting unrelated fractions – VF, Think, GDS

PS Lesson: adding and subtracting fractions (multi-step / multi-domain)

- Calculating with fractions -mixed practice
- What is percentage?
- FDP equivalence
- FDP equivalence – VF, Think, GDS
- 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
- Most efficient method for percentages
- Finding the whole from given percentage/fraction parts
- Percentages & pie charts

PS Lesson: percentages (real-life word)

Fractions and percentages as operators

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: finding starting points

Y6 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

Y6 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

Y6 Learning Sequences

Statistics

Learning Steps

Prior learning check & remediation/deepening of prior

Dual bar charts

Line Charts

Pie Charts

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 how to use the mean to make comparisons between two sets of information

Explain when the mean is not an appropriate representation of a set of data

Assessment

Pause & Stretch: re-assessment & deepening as required

Y6 Learning Sequences

Calculator Crunch

Learning Steps

Seven segments – calculator displays

All the sevens – calculating with a calculator

7-digit numbers – calculating with a calculator

What is one seventh – fractions with a calculator

7 is an amazing number – problem solving with a calculator

PS Skills Lesson: conjecture & generalising

Y6 Learning Sequences

Y7 Bridging Units

Children, who did not secure understanding in these core concepts of the primary curriculum, should complete intervention and revisits of earlier content; children who did secure understanding should complete these consolidation/bridging activities.

Learning Steps	
Place Value	Understand place value in integers
	Understand place value in decimals
	Understand place value in the context of measure
	Compare & order numbers and measures
Properties of Number	Understand multiples
	Understand integer exponents & roots
	Understand the unique prime factorisation of a number
Arithmetic Procedures	Additive structures for negative numbers
	Additive structures for decimals
	Multiplicative structures for positive and negative integers
	Multiplication with decimals
	Division with decimals
	Priority of operations
	Associative, distributive and commutative laws
Arithmetic Procedures with Fractions	Representing fractions as numbers
	Comparing & ordering fractions
	Additive structures for fractions
	Multiplicative structures for fractions