

Y4 Learning Sequence

Review of Column Addition & Subtraction

Learning Steps

Prior learning check & remediation/deepening of prior

- Column addition to TO: no regrouping
- Column addition to HTO: no regrouping
- Column addition to HTO: regrouping ones to a ten
- Column addition to HTO: regrouping tens to a hundred
- Column addition to HTO: multiple regrouping
- Column addition to HTO: VF, Think, GDS (including charts)

PS Lesson: column addition (multi-step)

- Column subtraction to TO: no exchanging
- Column subtraction to TO: exchanging 1s for a 10
- Column subtraction to HTO: exchanging 1s for a 10
- Column subtraction to HTO: exchanging 10s for a 100
- Column subtraction to HTO: multiple exchanges
- Column subtraction to HTO: VF, Think, GDS
- Mixed addition & subtraction practice

PS Lesson: column subtraction (multi-step)

- Approximation to check
- Inverse to check

Assessment

Pause & Stretch: re-assessment & deepening as required

Y4 Learning Sequence

Numbers to 10,000

Learning Steps

Prior learning check & remediation/deepening of prior

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

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

Compare numbers to 10,000
Order numbers to 10,000

PS Lesson: compare & order (visual)

Column addition to 10,000: same PV
Column addition to 10,000: different
Column subtraction to 10,000: same PV
Column subtraction to 10,000: different

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

Find two multiples a number is between
Find the midpoints between two numbers
Round 2-digit numbers to nearest 10
Round 3-digit numbers to nearest 100
Round 4-digit numbers to nearest 1,000
Round 3-digit numbers to nearest 10
Round 4-digit numbers to the nearest 10
Round 4-digit numbers to the nearest 100
Mixed rounding

PS Lesson: rounding (working backwards)

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: trial & improvement

Y4 Learning Sequence

3, 6, 9 and 7 Times Tables

Learning Steps

Prior learning check & remediation/deepening of prior

- x3 counting & repeated addition
- x3 using adjacent facts
- x3 commutative property
- x3 distributive property (including beyond know facts)
 - x3 inverse facts
 - x3 rules of divisibility
- x6 counting & repeated addition
- x6 deriving facts from x3 table
- x6 using adjacent facts
- x6 commutative property
- x6 distributive property (including beyond know facts)
 - x6 inverse facts
 - x6 rules of divisibility
- x9 counting & repeated addition
- x9 deriving facts from x3 and x6 table
- x9 using adjacent facts
- x9 commutative property
- x9 distributive property (including beyond know facts)
 - x9 inverse facts
 - x9 rules of divisibility
- x7 counting & repeated addition
- x7 using adjacent facts
- x7 commutative property
- x7 distributive property (including beyond know facts)
 - x7 inverse facts

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: working collaboratively

Y4 Learning Sequence

Multiplicative Relationships

Learning Steps

Prior learning check & remediation/deepening of prior

Understanding and using Gattegno Charts

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

Explain how a remainder relates to a divisor

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

Interpret remainders

PS Lesson: interpret remainders (working backwards)

Partition mental multiplication Strategy

Partition Mental multiplication strategy- varied practice

Double & half mental multiplication strategy

Double & half mental multiplication strategy- varied practice

Strategy choice

Partitioning as a mental division strategy

Partitioning as a mental division strategy - varied practice

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: working systematically

Y4 Learning Sequence

Perimeter

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

PS Lesson: perimeter (working backwards)

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: finding starting points

Y4 Learning Sequence

Fractions

Learning Steps

Prior learning check & remediation/deepening of prior

- 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
- Mixed number – improper fraction conversion – varied practice & think
- Compare and order mixed when whole number and denominator of the fractional part is the same
- Compare mixed numbers when 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 VF & Think
- Add mixed numbers using number lines

PS Lesson: add mixed numbers (open-ended)

- 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 proper fractions from wholes and mixed numbers VF & Think
- Subtract mixed numbers from mixed numbers – not bridging the whole
- Subtract mixed numbers from mixed numbers – bridging the whole
- Subtract mixed numbers from mixed numbers VF & Think
- Find the difference between mixed numbers using number lines
- Add and subtract mixed numbers - mixed practice

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

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: visualising

Y4 Learning Sequence

Geometric Reasoning

Learning Steps

Prior learning check & remediation/deepening of prior

Describe positions using coordinates in the first quadrant

Plot coordinates in the first quadrant

Translate on a grid

Describe a translation

PS Lesson: position & direction (logic)

Complete a symmetrical pattern

Compose symmetrical shapes from two congruent shapes

Folding for symmetry in 2d shapes

Reflect polygons over a line of symmetry

Identify types of triangles

Symmetry in triangles

PS Lesson: triangles

Assessment

Pause & Stretch: re-assessment & deepening as required

PS Skills Lesson: conjecture & generalising

Y4 Learning Sequence

Time

Learning Steps

Prior learning check & remediation/deepening of prior

Roman Numerals I to XII
Reading the time using Roman Numerals
Use am and pm
Convert 12 hour time into 24 hour time
Convert 24 hour time into 12 hour time
Calculate time durations
Calculate finish times
Calculate start times
Timetables
Convert between units of time

Assessment

Pause & Stretch: re-assessment & deepening as required