Year 5, Autumn Term 1

Wk Strands

NPV Number and place value; WAS
 Written addition and subtraction; PRA
 Problem solving, reasoning and algebra

Progression Focus

Addition and subtraction

Weeks 1 and 2 focus on establishing a robust understanding of place value and using this in the development of addition and subtraction calculation strategies.

2 MAS Mental addition and subtraction; NPV Number and place value

3 DPE Decimals, percentages and their equivalence to fractions; PRA Problem solving, reasoning and algebra; MMD Mental multiplication and division

4 MEA Measurement

Addition and subtraction

Weeks 1 and 2 focus on establishing a robust understanding of place value and using this in the development of addition and subtraction calculation strategies.

Decimals; multiplication and division

Week 3 focuses on multiplying and dividing to get decimal numbers, and then on mental strategies in multiplication and division.

Time: length

Week 4 focuses on calculating time intervals and on measuring lengths in cm and mm including perimeters.

Weekly Summary

Read, write, compare and order 5-digit numbers, understanding the place value and using < and >signs; add and subtract multiples of 10, 100 and 1000 to and from 5-digit numbers; use written addition to add two 4-digit numbers; work systematically to spot patterns.

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

- Read and write numbers to at least 1 000 000
- Order and compare numbers to at least 1 000 000

Please see Mastery Checkpoint 5.1.1 (Teacher Guide 5.1.1)

- Add whole numbers with 4 digits, including using the formal written method of columnar addition (answers > 10 000)
- Use place value and number facts to add and subtract 2-, 3- and 4-digit numbers

Please see Mastery Checkpoint 5.1.2 (Teacher Guide 5.1.2)

Add and subtract 2- 3- and 4-digit numbers mentally; choose a strategy for solving mental additions or subtractions; solve word problems

Understand place value in decimal numbers; multiply and divide numbers with up to two decimal places by 10 and 100; multiply and divide by 0 and 100; add and subtract 0·1 and 0·01; multiply and divide by 4 by doubling or halving twice; use mental multiplication strategies to multiply by 20, 25 and 9

Revise converting 12-hour clock times to 24-hour clock times; find a time a given number of minutes or hours and minutes later; calculate time intervals using 24-hour clock format; measure lengths in mm and convert to cm; find perimeters in cm and convert cm to m

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Understand the 24-hour clock, convert times, calculate time intervals and use timetables
- Complete, read and interpret information in timetables using 24-hour



times

Please see Mastery Checkpoint 5.4.3 (Teacher Guide 5.4.3)

WAS Written addition and subtraction; MAS Mental addition and subtraction

Subtraction

Week 5 focuses on using formal written subtraction and counting up as appropriate, including when finding change.

Solve subtraction using a written method for 3-digit – 3-digit numbers and for 4-digit numbers; use counting up (Frog) as a strategy to perform mental subtraction; find change from a multiple of ten pounds using counting up

Year 5, Autumn Term 2

Wk Strands

5

MMD Mental multiplication and division; FRP Fractions, ratio and proportion

Progression Focus

Multiplication and division; fractions

Weeks 6 and 7 focus on multiplication and division, and extend children's understanding of fractions.

Recognise which numbers are divisible by 2, 3, 4, 5, 6, 9 and 25 and identify multiples; find factors; recording results systematically and finding all factors of a given number; compare and place fractions on a line; find equivalent fractions and reduce them to their simplest form

Mastery Checkpoint

Weekly Summary

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

Solve problems involving multiplication and division using knowledge of factors, doubles and halves, and times tables

Please see Mastery Checkpoint 5.6.4 (Teacher Guide 5.6.4)

Use mental strategies to multiply and divide multiples of 10 and 100; use a written method to multiply 3-digit and 4-digit numbers by 1-digit numbers and estimate answers, divide 3-digit numbers by 1-digit numbers using a written method and express remainders as a fraction and solve division word problems

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

Choose a mental or written method to solve problems, including word problems, involving division (including 2-/3-digit divided by 1-digit), and spot and explain patterns and relationships

Please see Mastery Checkpoint 5.7.5 (Teacher Guide 5.7.5)

Use a protractor to measure and draw angles in degrees; recognise, use terms and classify angles as obtuse, acute and reflex; recognise that angles on a line total 180° and angles round a point total 360°; identify and name parts of a circle including diameter, radius and circumference; draw circles to a given radius using a pair of compasses; relate angles to turns, and recognise that a 360° angle is a complete turn; use angle facts to solve problems related to turn

MMD Mental multiplication and division; WMD Written multiplication and division; PRA Problem solving, reasoning and algebra

Multiplication and division; fractions

Weeks 6 and 7 focus on multiplication and division, and extend children's understanding of fractions.

GPS Geometry: properties of shapes; PRA Problem solving, reasoning and algebra

Angles

Week 8 focuses on the concept of angles as degrees of 'turn', and on comparison, identification and measurement of angles.



9 NPV Number and place value; DPE Decimals, percentages and their equivalence to fractions; FRP Fractions, ratio and proportion

Whole numbers, decimals and fractions

Week 9 focuses on comparing and ordering whole numbers and decimals, and on equivalence in relation to proper fractions and decimals.

MAS Mental addition and subtraction; WAS Written addition and subtraction; MMD Mental multiplication and division; WMD Written multiplication and division; PRA Problem solving, reasoning and algebra

Revision

Week 10 provides in-depth revision of the four operations, including calculation strategies and the inverse relation between addition and subtraction, multiplication and division.

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Estimate and compare acute, obtuse and reflex angles
- Know angles are measured in degress

Please see Mastery Checkpoint 5.8.6 (Teacher Guide 5.8.6)

Place numbers to 100 000 and decimals up to two places on a line, round numbers to the nearest 10, 100 and 1000 and decimals up to two places to the nearest whole number; compare and order numbers with up to two decimal places; reduce fractions to their simplest form; know and recognise equivalent fractions and decimals to half, tenths and fifths

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

• Read, write, order and compare numbers with up to 2 decimal places Please see Mastery Checkpoint 5.9.7 (Teacher Guide 5.9.7)

 Identify, name and write equivalent fractions, including simplest forms of a given fraction, represented visually, including tenths and hundredths

Please see Mastery Checkpoint 5.9.8 (Teacher Guide 5.9.8)

Revise mental and written addition and subtraction strategies, choose to use a mental strategy or written method to solve addition and subtraction, choose to solve word problems involving multiplication and division questions including 2-and 3-digit by 1-digit and 2-digit by 2-digit using a mental or a written method, use mathematical reasoning to work out a function, identify the operation being used on numbers, understand that addition and subtraction are inverse operations multiplication and division, use function machines

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

- Subtract whole numbers with 4 digits. including using the formal written method of columnar subtraction
- Use place value and number facts to add and subtract 2-. 3- and 4-digit numbers
- Begin to add and subtract numbers mentally with increasingly large numbers

Please see Mastery Checkpoint 5.10.9 (Teacher Guide 5.10.9)

 Choose a mental or a written method to solve problems, including word problems, involving multiplication (including 2-/3-digit x 1-digit; 2-digit x 2-digit)

Year 5, Spring Term 1

Wk Strands

11 NPV Number and place value; DPE Decimals, percentages and their equivalence to fractions; PRA Problem solving, reasoning and algebra

Progression Focus

Place value

Week 11 focuses on developing a robust understanding of place value in larger whole numbers and in decimals; this is used to enable children to round any number to the nearest required power of ten.

MAS Mental addition and subtraction; PRA Problem solving, reasoning and algebra; WAS Written addition and subtraction

Addition and subtraction

Week 12 focuses on the rehearsal and development of mental calculation strategies for addition and subtraction.

Weekly Summary

Read, write and order numbers with up to 6 digits and understand the place value of each digit; place 6-digit numbers on a number line and find numbers between; solve place-value additions and subtractions with 6-digit numbers; understand place value in decimal numbers as tenths and hundredths; multiply and divide by 10/100/1000 using a place-value grid; understand place value in decimal numbers to 2-decimal places; place decimal numbers on a line; round two-place decimal numbers to nearest tenth and whole number; say the number a tenth or a hundredth more

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

- Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
- Read and write numbers to at least 1 000 000
- Order and compare numbers to at least 1 000 000
- Determine the value of each digit in numbers to at least 1 000 000 and use to solve place value additions and subtractions
- Order and compare 6-digit numbers and place on a number line

Please see Mastery Checkpoint 5.11.11 (Teacher Guide 5.11.11)

- Add and subtract 0.1 or 0.01 to/from numbers with up to 2 decimal places
- Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place
- Multiply and divide numbers by 10 and 100, including decimal numbers and those leading to decimal answers

Please see Mastery Checkpoint 5.11.12 (Teacher Guide 5.11.12)

Rehearse mental addition strategies for decimals and whole numbers; use counting on as a strategy to perform mental addition of 2-place decimals to the next whole number; solve missing number sentences; use mental strategies to solve multi-step word problems; use counting up as a strategy to perform written subtraction (Frog)

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

Solve problems involving numbers with up to 3 decimal places, including in

13 MMD Mental multiplication and division; NPV Number and place value; PRA Problem solving, reasoning and algebra

Multiplication and division

Week 13 focuses on the rehearsal and development of mental calculation strategies for multiplication and division, and on identifying patterns and rules.

14 **PRA** Problem solving, reasoning and algebra; **GPS** Geometry: properties of shapes; **MEA** Measurement; **STA** Statistics

2D shapes; measures

Week 14 focuses on exploring the properties of triangles, naming and identifying the different types; and then on SI units of measure, reading scales and conversion problems.

the context of measures

Please see Mastery Checkpoint 5.12.13 (Teacher Guide 5.12.13)

- Add and subtract numbers mentally with increasingly large numbers
- Solve addition 1- step and multi-step problems using mental addition

Please see Mastery Checkpoint 5.12.14 (Teacher Guide 5.12.14)

Use rules of divisibility to find if numbers are divisible by 2, 3, 4, 5, 9 and 10; identity prime numbers; revise finding factors of numbers; find squares and square roots of square numbers; finding patterns and making and testing rules; use mental multiplication and division strategies; relate mental division strategies to multiples of ten of the divisor

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers
- Multiply and divide numbers mentally drawing upon known facts
- Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers; establish whether a number up to 100 is prime and recall prime numbers up to 19
- Recognise and use square numbers and their notation (2)

Please see Mastery Checkpoint 5.13.15 (Teacher Guide 5.13.15)

Know properties of equilateral, isosceles, scalene and right-angled triangles; find that angles in a triangle have a total of 180°; sort triangles according to their properties; use scales to weigh amounts to the nearest half interval; convert from grams to kilograms and vice versa, from millilitres to litres and vice versa, and from metres to kilometres and vice versa; read scales to the nearest half division; understand that we measure distance in kilometres and miles; use ready reckoning to give approximate values of miles in kilometres and vice versa; draw line conversion graphs

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

- Know that the angles in a triangle add up to 180° and devise and test rules to find a missing angle
- Describe the properties of triangles (including scalene, right-angled, isosceles and equilateral)

Please see Mastery Checkpoint 5.14.16 (Teacher Guide 5.14.16)

Convert between different units of metric measure (km / m; cm / m; cm / m; g / kg; L / ml)



WAS Written addition and subtraction; PRA Problem solving, reasoning and algebra; MEA Measurement

Addition and subtraction

Week 15 focuses on column addition of decimal numbers, and on mental subtraction of decimal numbers.

Please see Mastery Checkpoint 5.14.17 (Teacher Guide 5.14.17)

Use a written column method to add amounts of money in pounds and pence; add 2-place decimals using written column addition; subtract decimal numbers using counting up (Frog)

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Add whole numbers and 1-place decimals using appropriate mental strategies
- Add 1- and 2-place decimal numbers (including money) choosing and using an appropriate method (including columnar addition and mental methods)
- Use counting on and bonds to 100 to add to any 2-place decimal to find the next whole number
- Subtract amounts of money and other 1- and 2-place decimal numbers in the context of measures
- Add 2-digit numbers with 2-place decimals, including money, using column addition

Please see Mastery Checkpoint 5.15.18 (Teacher Guide 5.15.18)

Year 5, Spring Term 2

Wk Strands

16 **WMD** Written multiplication and division

Progression Focus

Multiplication and division

Weeks 16 and 17 focus on the development of written methods for multiplication and division; division is linked to finding fractions of large amounts.

17 **WMD** Written multiplication and division; **FRP** Fractions, ratio and proportion

Multiplication and division

Weeks 16 and 17 focus on the development of written methods for multiplication and division; division is linked to finding fractions of large amounts.

Weekly Summary

Use a written method (grid) to multiply pairs of 2-digit numbers; use short division to divide 3-digit numbers by 1-digit numbers, including those which leave a remainder

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Choose an appropriate method to divide one number by another, including for larger numbers requiring a written procedure
- Use short division to divide 3-digit numbers by 1-digit numbers (including those that leave a remainder)

Please see Mastery Checkpoint 5.16.19 (Teacher Guide 5.16.19)

Find unit fractions and non-unit fractions of 3-digit numbers; use short multiplication to multiply 3-digit numbers by 1-digit numbers; begin to use short multiplication to multiply 4-digit numbers by 1-digit numbers

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:



18 **GPS** Geometry: properties of shapes; **PRA** Problem solving, reasoning and algebra; **MEA** Measurement

2D shapes; angles; measures

Week 18 focuses on developing understanding of polygons and angles, particularly in relation to quadrilaterals; metric units are then revised and regularly used imperial units are taught.

19 **FRP** Fractions, ratio and proportion; **PRA** Problem solving, reasoning and algebra

Fractions

Week 19 focuses on revising proper fractions and equivalent fractions, and then moves on to mixed numbers and improper fractions; proper fractions are multiplied by whole numbers.

20 WAS Written addition and subtraction; PRA Problem solving, reasoning and algebra

Addition and subtraction

Week 20 focuses on rehearsing column subtraction and extending to larger / more difficult numbers; column addition and subtraction are used to solve problems.

Find unit and non-unit fractions of 2 and 3 digit numbers

Please see Mastery Checkpoint 5.17.20 (Teacher Guide 5.17.20)

- Use a written method to multiply pairs of 2-digit numbers
- Use short multiplication to multiply 3-digit numbers by 1-digit numbers, rounding to estimate answers

Please see Mastery Checkpoint 5.17.21 (Teacher Guide 5.17.21)

Understand what a polygon is; draw polygons using dotted square and isometric paper; revise terms obtuse, acute and reflex angles, perpendicular and parallel sides; recognise quadrilaterals as polygons and identify their properties; classify quadrilaterals; draw regular polygons and explore their properties; revise metric units of weight, capacity and length; understand that we can measure in imperial units and relate these to their instances in daily life

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Use mathematical reasoning to identify properties of different polygons, including equal sides and angles and explain findings
- Identify and define a polygon; distinguish between regular and irregular polygons based on reasoning about equal sides and angles

Please see Mastery Checkpoint 5.18.22 (Teacher Guide 5.18.22)

Place mixed numbers on lines; count up in fractions using equivalence; convert improper fractions to mixed numbers and vice versa; write improper fractions as mixed numbers and vice versa; multiply proper fractions by whole numbers

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Recognise mixed numbers and improper fractions and convert from one form to the other; look for patterns and write rules
- Place fractions on a number line and count in steps of a given fraction, using equivalence

Please see Mastery Checkpoint 5.19.23 (Teacher Guide 5.19.23)

Solve subtraction of 4-digit numbers using written column subtraction (decomposition); add several numbers using written column addition; use column to solve problems

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

Count up to solve 4-digit minus 4-digit subtractions from near multiples of 1000, where column subtraction is awkward; use column subtraction where appropriate

Use columnar addition to add more than 2 numbers with up to 4 digits

Please see Mastery Checkpoint 5.20.24 (Teacher Guide 5.20.24)

Year 5, Summer Term 1

Wk Strands

MAS Mental addition and subtraction; **DPE** Decimals, percentages and their equivalence to fractions; PRA Problem solving, reasoning and algebra

Progression Focus

Addition and subtraction

Week 21 focuses on adding and subtracting numbers in the context of money and contextual problems.

FRP Fractions, ratio and proportion; 22 PRA Problem solving, reasoning and algebra: WMD Written multiplication and division

Fractions; multiplication

Week 22 focuses on multiplying and converting fractions; and on short and long multiplication of whole numbers.

DPE Decimals, percentages and their

Place value and decimals

Week 23 focuses on place value in

Weekly Summary

Add mentally 2-place decimal numbers in the context of money using rounding; add several small amounts of money using mental methods; mentally subtract amounts of money including giving change; calculate the difference between two amounts using counting up; solve word problems, including 2-step problems, choosing an appropriate method

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Use rounding to check answers to calculations and determine, in the context of a problem, level of accuracy; use addition to check subtraction
- Subtract 2-place decimal numbers (including money) using counting up or mental methods
- Solve addition and subtraction problems, including multi-step and word problems; decide which operations and methods to use and why
- Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign

Please see Mastery Checkpoint 5.21.25 (Teacher Guide 5.21.25)

Multiply fractions less than 1 by whole numbers, convert improper fractions to whole numbers; use short multiplication to multiply 3-digit and 4-digit numbers by 1-digit numbers; use long multiplication to multiply 2-digit and 3-digit numbers by teens numbers

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

Multiply proper fractions by whole numbers, supported by materials and diagrams, spot patterns and make generalisations

Please see Mastery Checkpoint 5.22.26 (Teacher Guide 5.22.26)

Use short multiplication to multiply 4-digit numbers by 1-digit numbers, rounding to estimate answers

Please see Mastery Checkpoint 5.22.27 (Teacher Guide 5.22.27)

Read, write and compare decimals to three decimal places, understanding that the third decimal place represents thousandths; multiply and divide numbers by 10, 100 and



equivalence to fractions; PRA

23

Problem solving, reasoning and algebra; **NPV** Number and place value

decimals, including multiplying and dividing by 10 and 100.

24 **GPD** Geometry: position and direction; **PRA** Problem solving, reasoning and algebra; **GPS** Geometry: properties of shapes

Coordinate geometry; 2D and 3D shapes

Week 24 focuses on plotting, reflecting and translating shapes on coordinate grids; and on extending understanding of properties of 2D and 3D shapes.

Addition and subtraction

1000 using 3-place decimal numbers in the calculations; place 2-place decimals on a number line and round them to the nearest tenth and whole number; read, write, order and compare 3-place decimal numbers; understand and use negative numbers in the context of temperature

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

- Read, write, order and compare numbers with up to 3 decimal places
- Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

Please see Mastery Checkpoint 5.23.28 (Teacher Guide 5.23.28)

 Interpret negative numbers in context; count forwards and backwards with positive and negative whole numbers, including through 0; solve problems in the context of temperature

Please see Mastery Checkpoint 5.23.29 (Teacher Guide 5.23.29)

Read and mark co-ordinates in the first two quadrants; draw simple polygons using co-ordinates; translate simple polygons by adding to and subtracting from the co-ordinates; reflect simple shapes in the y axis or in a line, noting the effect on the co-ordinates; translate simple shapes and note what happens to the co-ordinates; draw regular and irregular 2D shapes using given dimensions and angles; use the properties of 2D shapes, including rectangles, to derive related facts; identify 3D shapes from 2D representations; create 3D shapes using 2D nets and draw 3D shapes

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

- Identify, describe and represent the position of a shape following a reflection or translation using the appropriate language; know that the shape has not changed; describe the relationship between the shapes' co-ordinates
- Read and mark coordinates in the first two quadrants and plot and join coordinates to create a polygon

Please see <u>Mastery Checkpoint 5.24.30</u> (<u>Teacher Guide 5.24.30</u>) (<u>Additional Resource 5.24.30</u>)

- Draw given angles and straight lines to given lengths to create a triangle
- Identify 3D shapes, including cubes and other cuboids, from 2D representations

Please see <u>Mastery Checkpoint 5.24.31</u> (<u>Teacher Guide 5.24.31</u>) (<u>Additional Resource 5.24.31</u>)

Add 5-digit numbers using written column addition; subtract 5-digit numbers using written method (decomposition); check answers to subtractions using written column

subtraction; PRA Problem solving,

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25

WAS Written addition and

reasoning and algebra

Week 25 focuses on written methods of addition and subtraction, and choosing efficient strategies to solve problems.

addition; solve subtractions of 4- and 5-digit numbers using written column subtraction or number line counting up

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Add whole numbers with more than 4 digits, including using formal written methods such as columnar addition
- Subtract whole numbers with more than 4 digits, including using formal written methods such as columnar subtraction

Please see Mastery Checkpoint 5.25.32 (Teacher Guide 5.25.32)

Year 5, Summer Term 2

Wk Strands

26 MMD Mental multiplication and division; PRA Problem solving, reasoning and algebra; FRP Fractions, ratio and proportion

Progression Focus

Multiplication and division and fractions

Weeks 26 and 27 focus on factors and multiples; on securing the concept of equivalent fractions to enable calculations with fractions; and on further developing written methods of multiplication and division.

WMD Written multiplication and division

Multiplication and division and fractions

Weeks 26 and 27 focus on factors and multiples; on securing the concept of equivalent fractions to enable calculations with fractions; and on further developing written methods of multiplication and division.

Weekly Summary

Identify factors and multiples, find factor pairs; revise equivalent fractions; compare and order fractions with related denominators; add fractions with same or related denominators, then convert answer into a mixed number; subtract fractions with same and related denominators, revise multiplying fractions by whole numbers

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Compare and order fractions, including mixed numbers, whose denominators are all multiples of the same number
- Add and subtract fractions with the same denominator and denominators that are multiples of the same whole number, including answers more than 1

Please see Mastery Checkpoint 5.26.33 (Teacher Guide 5.26.33)

Use short division to divide 3-digit numbers by 1-digit numbers and 4-digit numbers by 1-digit numbers, including those which leave a remainder; express a remainder as a fraction; use long multiplication to multiply 3-digit and 4-digit numbers by teens numbers

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

 Divide numbers up to 4 digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context

Please see Mastery Checkpoint 5.27.34 (Teacher Guide 5.27.34)



28 **PRA** Problem solving, reasoning and algebra; **MEA** Measurement

Area and perimeter; volume

Week 28 focuses on calculating areas, perimeters and volumes, and understanding the difference between measurement in one, two and three dimensions.

29 DPE Decimals, percentages and their equivalence to fractions; FRP Fractions, ratio and proportion; NPV Number and place value

Fractions, decimals and percentages

Week 29 focuses on understanding percentages and how they relate to fractions and decimals, and solving problems by finding percentages of amounts.

30 NPV Number and place value; STA
Statistics; MEA Measurement; WMD
Written multiplication and division; PRA

Revision

Week 30 focuses on revision of: line graphs;

 Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2-digit numbers

Please see Mastery Checkpoint 5.27.35 (Teacher Guide 5.27.35)

Find the area and perimeter of squares and rectangles by calculation and pursue a line of enquiry; estimate and find the area of irregular shapes; calculate the perimeter and area of composite shapes; use the relations of area and perimeter to find unknown lengths; begin to understand the concept of volume; find the volume of a cube or cuboid by counting cubes; understand volume as measurement in three dimensions; relate volume to capacity; recognise and estimate volumes

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

- Measure and calculate the perimeter of composite rectilinear shapes in cm and m
- Calculate and compare the area of rectangles (including squares), including using standard units, cm2 and m2, and pursue a line of enquiry
- Estimate the area of irregular shapes

Please see Mastery Checkpoint 5.28.36 (Teacher Guide 5.28.36)

Estimate and begin to find volume and capacity

Please see Mastery Checkpoint 5.28.37 (Teacher Guide 5.28.37)

Understand what percentages are, relating them to hundredths; know key equivalences between percentages and fractions, finding percentages of amounts of money; find equivalent fractions, decimals and percentages; solve problems involving fraction and percentage equivalents; write dates using Roman numerals

Mastery Checkpoint

There is one Mastery Checkpoint in this week. It tests the following outcomes from the Progression Map:

- Recognise the per cent symbol (%) and understand that it relates to 'number of parts per hundred'; write percentages as a fraction with denominator 100 and as a decimal
- Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25

Please see Mastery Checkpoint 5.29.38 (Teacher Guide 5.29.38)

Find cubes of numbers to 10; draw and interpret line graphs showing change in temperature over time; begin to understand rate; use timetables using the 24-hour clock and use counting up to find time intervals of several hours and

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Problem solving, reasoning and algebra; **MMD** Mental multiplication and division

calculating time intervals; finding cubes of numbers; using factors to multiply; and solving scaling problems involving fractions and measures. minutes; solve problems involving scaling by simple fractions; use factors to multiply; solve scaling problems involving measure

Mastery Checkpoint

There are two Mastery Checkpoints in this week. They test the following outcomes from the Progression Map:

- Draw line graphs; solve comparison, sum and difference problems using information presented in a line graph
- Estimate intermediate values on line graphs

Please see Mastery Checkpoint 5.30.39 (Teacher Guide 5.30.39)

 Solve problems (including word problems and problems about measure) involving multiplication and division, including scaling by simple fractions and problems involving simple rates

Please see Mastery Checkpoint 5.30.40 (Teacher Guide 5.30.40)