

## Wk Progression Focus

### 11 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.

## 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

## Strands

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

## Objectives

- **NPV.63** Understand place value in 6-digit numbers by creating 6-digit numbers, placing them on a number line and solving place value additions and subtractions
- **NPV.64** Order and compare 6-digit numbers and say a number between
- **NPV.62** Understand the effect of multiplying or dividing a given number by 10, 100 or 1000; answers < 100000 and with not more than 2 decimal places
- **DPE.65** Multiply and divide numbers by 10 and 100 to give 1- or 2-place decimal answers
- **DPE.62** Use place value to add and subtract 0.1 and 0.01 to and from decimal numbers
- **DPE.64** Round 1- and 2-place decimals up and down to the nearest whole number
- **DPE.66** Round 2-place decimals up or down to the nearest tenth
- **PRA.65** Use mathematical reasoning to explain findings, patterns and relationships
- **MAS.56** Use mental strategies to add 2-digit, 3-digit and 4-digit numbers

### 12 Addition and subtraction

Week 12 focuses on the rehearsal and development of mental calculation

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

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

strategies for addition and subtraction.

multi-step word problems; use counting up as a strategy to perform written subtraction (Frog)

addition and subtraction

- **MAS.62** Add any pair of 1-place decimals
- **MAS.63** Work out what number to add to a 2-place decimal to make the next whole number
- **MAS.58** Understand addition and subtraction as inverses of each other and use this to find relationships
- **MAS.60** Use counting up to subtract 4-digit numbers from near multiples of 1000
- **MAS.50** Subtract 4-digit from 4-digit multiples of 1000 by counting up
- **PRA.66** Solve addition and subtraction multi-step problems, deciding which operations and methods to use and why
- **WAS.58** Use expanded or compact decomposition to subtract numbers with up to 4-digits (harder)

### 13 **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.

Use rules of divisibility to find if numbers are divisible by 2, 3, 4, 5, 9 and 10; identify 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

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

- **MMD.62** Apply divisibility tests for 2, 3, 4, 5, 6, 9, 10 and 25
- **MMD.61** Identify factors and multiples, and begin to find common factors
- **MMD.55** Use mental strategies to solve multiplications including multiplying by 0 and 1, dividing by 1, multiplying together three numbers
- **MMD.57** Use mental strategies to solve divisions including dividing by 1
- **MMD.66** Use efficient mental division strategies to divide large numbers



14 **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.

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

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

15 **Addition and subtraction**

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

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

**WAS** Written addition and subtraction; **PRA** Problem solving, reasoning and

- **NPV.68** Identify all the prime numbers less than 100 using Eratosthenes sieve
- **NPV.67** Identify square numbers up to 100, understand concept of a square root, relate square roots to square numbers
- **PRA.70** Identify patterns, devise and test rules and use them to make predictions
- **PRA.69** Devise a rule to work out missing angles
- **GPS.58** Recognise that an equilateral triangle is a regular polygon with angles of 60°
- **GPS.57** Compare and classify triangles, according to their properties
- **MEA.37** Read relevant scales to the nearest numbered unit
- **MEA.43** Measure, compare, add and subtract weights (masses) using kg/g
- **MEA.65** Convert between different units of measure, e.g. kilometres to metres, metres to centimetres, etc.
- **MEA.70** Recognise and estimate volume and capacity using ccs and ml
- **STA.61** Interpret and present continuous data using line graphs
- **WAS.62** Use column addition to add pairs of 2-place decimals, including

subtraction of decimal numbers.

up (Frog)

algebra; **MEA** Measurement

amounts of money

- **WAS.63** Use counting up on a number line to subtract 2-place decimals from 2-place decimals
- **PRA.57** Check that all solutions have been found
- **PRA.68** Solve problems involving addition, subtraction, multiplication and division and a combination of these
- **MEA.71** Solve problems involving addition and subtraction of measures using decimal notation