

## Wk Progression Focus

### 21 Place value and decimals

Weeks 21 and 22 focus on consolidating place value in 4- and 5-digit numbers, extending to decimals; including multiplying and dividing by 10 and 100, placing numbers (including negative) on lines, and adding and subtracting powers of 10.

## Weekly Summary

Read, write and compare 4-digit numbers and place on a line; find 1000 more or less than any given number; read, write and compare 5-digit numbers; recognise what each digit represents in a 5-digit number; read, use and compare negative numbers in the context of temperature

## Strands

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

## Objectives

- **NPV.46** Order and compare 4-digit numbers and say a number between
- **NPV.45** Understand place value in 4-digit numbers by creating 4-digit numbers, placing them on a number line and solving place value additions and subtractions
- **NPV.52** Use place value to add and subtract multiples of 10, 100 and 1000 to and from 4-digit numbers
- **NPV.58** Understand place value in 5-digit numbers by creating 5-digit numbers, placing them on a number line and solving place value additions and subtractions
- **NPV.59** Order and compare 5-digit numbers and say a number between
- **NPV.60** Use place value to add and subtract multiples of 10, 100, 1000 and 10000 to and from 5-digit numbers
- **NPV.55** Locate negative numbers on a number line and relate to temperature
- **NPV.56** Find numbers more or less than a given negative number and



22 **Place value and decimals**

Weeks 21 and 22 focus on consolidating place value in 4- and 5-digit numbers, extending to decimals; including multiplying and dividing by 10 and 100, placing numbers (including negative) on lines, and adding and subtracting powers of 10.

Multiply and divide numbers by 10 and 100 including decimals (tenths and hundredths); read and write decimals (to 1 and 2 places), understanding that these represent parts (tenths and hundredths) of numbers; mark 1- and 2- place decimals on a line; count in tenths (0.1s) and hundredths (0.01s); multiply numbers with up to 2 decimal places by 10 and 100, and divide numbers by 10 and 100; say the number one tenth and one hundredth more or less than a given number; round decimal numbers to the nearest whole number

**MAS** Mental addition and subtraction; **DPE** Decimals, percentages and their equivalence to fractions

relate to temperature

- **PRA.53** Use, explain and justify mathematical reasoning
- **MAS.54** Work out what number to add to a 1-place decimal to make the next whole number
- **DPE.48** Match 1-place decimals to 1/10s
- **DPE.53** Divide integers by 10, 100 and 1000 to get 1-place decimal answers
- **DPE.60** Match 2-place decimals to 1/100s, using a place value grid
- **DPE.65** Multiply and divide numbers by 10 and 100 to give 1- or 2-place decimal answers
- **DPE.40** Understand tenths (1/10s) as fractions and place them on a line
- **DPE.50** Locate and write 1-place decimals on a number line and match to 1/10s
- **DPE.51** Count in decimal steps of 0.1 (tenths)
- **DPE.59** Locate and write 2- place decimals on a number line using length as a context
- **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

## 23 Multiplication and division

Week 23 focuses on extending knowledge of times tables, using this to develop understanding of harder written multiplication algorithms; and on division as the inverse of multiplication.

Learn 11 and 12x tables; develop and use effective mental multiplication strategies; use a vertical written method to multiply 3-digit numbers by 1-digit numbers; use rounding to estimate answers; use a written method to multiply 3-digit numbers, including amounts of money by 1-digit numbers; multiply 2-digit and 3-digit numbers by 1-digit numbers; understand how division 'undoes' multiplication and vice versa; divide above the tables facts using multiples of 10

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

- **MMD.43** Multiply mentally 2-digit by 1-digit numbers using partitioning
- **MMD.53** Recall multiplication and division facts for the  $\times 11$  and  $\times 12$  tables
- **MMD.48** Multiply mentally multiples of 100 by 1-digit numbers
- **MMD.49** Double and halve 3-digit numbers by partitioning
- **MMD.56** Multiply multiples and near multiples of 10 and 100 by 1-digit numbers
- **MMD.44** Divide mentally numbers just beyond the tables by subtracting the multiple of 10 (no remainders)
- **MMD.58** Understand multiplication and division as inverses of each other and use this to find relationships
- **PRA.52** Describe, predict and explain patterns
- **PRA.60** Solve number and practical problems with increasingly large positive numbers
- **PRA.58** Solve simple measure and money problems involving fractions and decimals up to 2 decimal places
- **NPV.36** Round 3-digit numbers up or down to the nearest 100 and 10
- **WMD.49** Multiply 2- and 3-digit by 1-digit numbers



24 **Area and perimeter; 2D and 3D shapes**

Week 24 focuses on calculating perimeters and areas of shapes, and on properties of 2D and 3D shapes.

Recognise and read Roman numerals to 100; begin to know the history of our number system including 0; calculate area and perimeter of rectilinear shapes using multiplication and addition, or counting; recognise, name and classify 2D shapes identifying regular and irregular polygons; sort 2D shapes according to properties including types of quadrilaterals and triangles; revise 3D shapes, consider 2D-shaped sides on 3D shapes, and sort shapes

**NPV** Number and place value;  
**MEA** Measurement; **GPS**  
Geometry: properties of shapes

- using the ladder method
- **WMD.51** Divide 2- and 3-digit by 1-digit numbers using a written method drawn from mental strategies with integer remainders and answers between 10 and 20
- **WMD.52** Divide 3-digit by 1-digit numbers using a written method drawn from mental strategies with integer remainders and answers < 50
- **MEA.61** Estimate, compare and calculate different measures, including money in pounds and pence
- **NPV.69** Read Roman numerals to 1000 (M) and recognise dates
- **MEA.60** Find the area of rectilinear shapes by counting squares
- **MEA.66** Calculate and compare areas of squares and rectangles using standard units
- **MEA.62** Measure and calculate the perimeter of rectilinear figures in cm and m
- **GPS.45** Compare and classify squares, rectangles and triangles based on their properties and sizes
- **GPS.52** Compare and classify regular polygons and some irregular polygons based on properties and sizes



25 **Fractions and decimals**

Week 25 focuses on developing and enhancing the concept of decimal number, including relating decimal fractions to proper fractions and recognising equivalents.

Understand, read and write 2-place decimals; compare 2-place decimals in the context of lengths; add and subtract 0.1 and 0.01 and say a number one-tenth (0.1) or one-hundredth (0.01) more or less than a given number; revise equivalent fractions; write fractions with different denominators with a total of 1; recognise decimal and fraction equivalents

**DPE** Decimals, percentages and their equivalence to fractions; **PRA** Problem solving, reasoning and algebra; **FRP** Fractions, ratio and proportion

- **GPS.57** Compare and classify triangles, according to their properties
- **GPS.59** Compare and classify quadrilaterals according to their properties
- **GPS.26** Recognise and identify 3D shapes, including cones, spheres, pyramids, triangular prisms, cubes, and cuboids
- **GPS.28** Identify 2D shapes on the faces of 3D shapes, e.g. circle on a cone and triangle on a tetrahedron
- **GPS.33** Sort and categorise 3D shapes according to the number of faces, vertices and edges
- **DPE.58** Understand 2-place decimals in the context of money and length, recognise and write decimal equivalents to  $\frac{1}{4}$ ;  $\frac{1}{2}$ ;  $\frac{3}{4}$
- **DPE.59** Locate and write 2- place decimals on a number line using length as a context
- **DPE.63** Order and compare 1- and 2-place decimals and find a number between
- **DPE.62** Use place value to add and subtract 0.1 and 0.01 to and from decimal numbers
- **PRA.58** Solve simple measure and money



problems involving fractions and decimals up to 2 decimal places

- **PRA.57** Check that all solutions have been found
- **PRA.62** Solve problems involving harder fractions to calculate and divide quantities
- **FRP.43** Know fraction complements to 1 (fractions with denominators  $\leq 12$ )
- **FRP.46** Develop an understanding of equivalence in fractions;  $\frac{1}{2}$ s,  $\frac{1}{3}$ s,  $\frac{1}{4}$ s,  $\frac{1}{5}$ s,  $\frac{1}{6}$ s,  $\frac{1}{8}$ s,  $\frac{1}{10}$ s