

### Number and Place Value

Count in multiples of 6, 7, 9, 25 and 1,000.

Find 1,000 more or less than a given number.

Count backwards through 0 to include negative numbers.

Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s).

Order and compare numbers beyond 1,000.

Identify, represent and estimate numbers using different representations.

Round any number to the nearest 10, 100 or 1,000.

Solve number and practical problems that involve all of the above and with increasingly large positive numbers.

Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value.

**4NPV-1 - Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.**

**4NPV-2 - Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.**

**4NPV-3 - Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.**

**4NPV-4 - Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.**

### Addition and Subtraction

Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.

Estimate and use inverse operations to check answers to a calculation.

Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

### Multiplication and Division

Recall multiplication and division facts for multiplication tables up to  $12 \times 12$ .

Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers.

Recognise and use factor pairs and commutativity in mental calculations.

Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.

Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as  $n$  objects are connected to  $m$  objects.

**4NF-1 - Recall multiplication and division facts up to  $12 \times 12$ , and recognise products in multiplication tables as multiples of the corresponding number.**

**4NF-2 - Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, for example:  $74 \div 9 = 8 \text{ r } 2$  and interpret remainders appropriately according to the context.**

**4NF-3 - Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100). For example:**

$8 + 6 = 14$ and $14 - 6 = 8$ so $800 + 600 = 1,400$ and $1,400 - 600 = 800$	$3 \times 4 = 12$ and $12 \div 4 = 3$ so $300 \times 4 = 1,200$ and $1,200 \div 4 = 300$
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**4MD-1 - Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.**

**4MD-2 - Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.**

<b>4MD-3 - Understand and apply the distributive property of multiplication.</b>
<b>Fractions (including decimals)</b>
Recognise and show, using diagrams, families of common equivalent fractions.
Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10.
Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.
Add and subtract fractions with the same denominator.
Recognise and write decimal equivalents of any number of tenths or hundreds.
Recognise and write decimal equivalents to $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{3}{4}$ .
Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
Round decimals with 1 decimal place to the nearest whole number.
Compare numbers with the same number of decimal places up to 2 decimal places.
Solve simple measure and money problems involving fractions and decimals to 2 decimal places.
<b>4F-1 - Reason about the location of mixed numbers in the linear number system.</b>
<b>4F-2 - Convert mixed numbers to improper fractions and vice versa</b>
<b>4F-3 - Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers</b>
<b>Measurement</b>
Convert between different units of measure [for example, kilometre to metre; hour to minute].
Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
Find the area of rectilinear shapes by counting squares.
Estimate, compare and calculate different measures, including money in pounds and pence.
Read, write and convert time between analogue and digital 12- and 24-hour clocks.
Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days.
<b>Properties of Shape</b>
Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
Identify acute and obtuse angles and compare and order angles up to 2 right angles by size.
Identify lines of symmetry in 2-D shapes presented in different orientations.
Complete a simple symmetric figure with respect to a specific line of symmetry.
<b>4G-1 - Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.</b>
<b>4G-2 - Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.</b>
<b>4G-3 - Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.</b>
<b>Position and Direction</b>
Describe positions on a 2-D grid as coordinates in the first quadrant.
Describe movements between positions as translations of a given unit to the left/right and up/down.
Plot specified points and draw sides to complete a given polygon.
<b>Statistics</b>
Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.