

## Year 4 Guidance

### Ready-to-progress criteria

Year 3 conceptual prerequisite	Year 4 ready-to-progress criteria	Future applications
Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10.	<b>4NPV-1</b> 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.	Solve multiplication problems that involve a scaling structure, such as '10 times as long'.
Recognise the place value of each digit in <i>three</i> -digit numbers, and compose and decompose <i>three</i> -digit numbers using standard and non-standard partitioning.	<b>4NPV-2</b> Recognise the place value of each digit in <i>four</i> -digit numbers, and compose and decompose <i>four</i> -digit numbers using standard and non-standard partitioning.	Compare and order numbers. Add and subtract using mental and formal written methods.
Reason about the location of any <i>three</i> -digit number in the linear number system, including identifying the previous and next multiple of 10 and 100.	<b>4NPV-3</b> Reason about the location of any <i>four</i> -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.	Compare and order numbers. Estimate and approximate to the nearest multiple of 1,000, 100 or 10.
Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.	<b>4NPV-4</b> 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.	Read scales on graphs and measuring instruments.
Recall multiplication and division facts in the 5 and 10, and 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.	<b>4NF-1</b> Recall multiplication and division facts up to $12 \times 12$ , and recognise products in multiplication tables as multiples of the corresponding number.	Use multiplication facts during application of formal written methods. Use division facts during application of formal written methods.

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<p>Use known division facts to solve division problems.</p> <p>Calculate small differences, for example:  <math>74 - 72 = 2</math></p>	<p><b>4NF-2</b> Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, for example:  <math>74 \div 9 = 8 \text{ r } 2</math></p> <p>and interpret remainders appropriately according to the context.</p>	<p>Correctly represent and interpret remainders when using short and long division.</p>
<p>Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example:  <math>80 + 60 = 140</math>  <math>140 - 60 = 80</math>  <math>30 \times 4 = 120</math>  <math>120 \div 4 = 30</math></p>	<p><b>4NF-3</b> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100), for example:  <math>8 + 6 = 14</math> and <math>14 - 6 = 8</math>            so  <math>800 + 600 = 1,400</math>  <math>1,400 - 600 = 800</math></p> <p><math>3 \times 4 = 12</math> and <math>12 \div 4 = 3</math>            so  <math>300 \times 4 = 1,200</math>  <math>1,200 \div 4 = 300</math></p>	<p>Apply place-value knowledge to known additive and multiplicative number facts, extending to a whole number of larger powers of ten and powers of ten smaller than one, for example:  <math>800,000 + 600,000 = 1,400,000</math>  <math>1,400,000 - 600,000 = 800,000</math></p> <p><math>0.03 \times 4 = 0.12</math>  <math>0.12 \div 4 = 0.03</math></p>
<p>Multiply two-digit numbers by 10, and divide three-digit multiples of 10 by 10.</p>	<p><b>4MD-1</b> 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.</p>	<p>Convert between different metric units of measure.</p> <p>Apply multiplication and division by 10 and 100 to calculations involving decimals, for example:  <math>0.03 \times 100 = 3</math>  <math>3 \div 100 = 0.03</math></p>
<p>Understand the inverse relationship between multiplication and division.</p> <p>Write and use multiplication table facts with the factors presented in either order.</p>	<p><b>4MD-2</b> Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.</p>	<p>Recognise and apply the structures of multiplication and division to a variety of contexts.</p>
	<p><b>4MD-3</b> Understand and apply the distributive property of multiplication.</p>	<p>Recognise when to use and apply the distributive property of multiplication in a variety of contexts.</p>

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Reason about the location of fractions less than 1 in the linear number system.	<b>4F-1</b> Reason about the location of mixed numbers in the linear number system.	Compare and order fractions.
Identify unit and non-unit fractions.	<b>4F-2</b> Convert mixed numbers to improper fractions and vice versa.	Compare and order fractions. Add and subtract fractions where calculation bridges whole numbers.
Add and subtract fractions with the same denominator, within 1 whole, for example: $\frac{2}{5} + \frac{2}{5} = \frac{4}{5}$	<b>4F-3</b> Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers, for example: $\frac{7}{5} + \frac{4}{5} = \frac{11}{5}$ $3\frac{7}{8} - \frac{2}{8} = 3\frac{5}{8}$ $7\frac{2}{5} + \frac{4}{5} = 8\frac{1}{5}$ $8\frac{1}{5} - \frac{4}{5} = 7\frac{2}{5}$	
Draw polygons by joining marked points.	<b>4G-1</b> Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.	Draw polygons, specified by coordinates in the 4 quadrants.
Measure lines in centimetres and metres. Add more than 2 addends. Recall multiplication table facts.	<b>4G-2</b> 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.	Draw, compose and decompose shapes according to given properties, dimensions, angles or area.
	<b>4G-3</b> 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.	Draw polygons, specified by coordinates in the 4 quadrants: draw shapes following translation or reflection in the axes.

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The criteria are organised into 6 strands, each with their own code. These are listed below.

<b>Criteria Strands</b>	<b>Code</b>
Number and place value	<b>NPV</b>
Number facts	<b>NF</b>
Addition and subtraction	<b>AS</b>
Multiplication and division	<b>MD</b>
Fractions	<b>F</b>
Geometry	<b>G</b>