

Year 3 Maths Curriculum Information

Maths (and maths homework) are often talking points at home! Below are key extracts taken from the 2020 DfE Guidance issued in July (hyperlinked on the right).

**Mathematics
guidance:
key stages 1 and 2**

Non-statutory guidance for the national curriculum in England

This information is aimed at teachers but will support you at home by clarifying the expectations of the year 3 maths curriculum. It lists the 'ready to progress criteria' that are required from mathematicians moving from Year 2, into Year 3 and beyond.

Year 3 guidance

Ready-to-progress criteria

Year 2 conceptual prerequisite	Year 3 ready-to-progress criteria	Future applications
<p>Know that 10 ones are equivalent to 1 ten, and that 40 (for example) can be composed from 40 ones or 4 tens.</p> <p>Know how many tens there are in multiples of 10 up to 100.</p>	<p>3NPV-1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.</p>	<p>Solve multiplication problems that that involve a scaling structure, such as 'ten times as long'.</p>
<p>Recognise the place value of each digit in <i>two</i>-digit numbers, and compose and decompose <i>two</i>-digit numbers using standard and non-standard partitioning.</p>	<p>3NPV-2 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.</p>	<p>Compare and order numbers.</p> <p>Add and subtract using mental and formal written methods.</p>
<p>Reason about the location of any <i>two</i>-digit number in the linear number system, including identifying the previous and next multiple of 10.</p>	<p>3NPV-3 Reason about the location of any <i>three</i>-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.</p>	<p>Compare and order numbers.</p> <p>Estimate and approximate to the nearest multiple of 1,000, 100 or 10.</p>
<p>Count in multiples of 2, 5 and 10.</p>	<p>3NPV-4 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.</p>	<p>Read scales on graphs and measuring instruments.</p>

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<p>Add and subtract across 10, for example:</p> $8 + 5 = 13$ $13 - 5 = 8$	<p>3NF-1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.</p>	<p>Add and subtract mentally where digits sum to more than 10, for example:</p> $26 + 37 = 63$ <p>Add and subtract across other powers of 10, without written methods, for example:</p> $1.3 - 0.4 = 0.9$ <p>Add within a column during columnar addition when the column sums to more than 10 (regrouping), for example, for:</p> $126 + 148$ <p>Subtract within a column during columnar subtraction when the minuend of the column is smaller than the subtrahend (exchanging), for example, for:</p> $453 - 124$
<p>Calculate products within the 2, 5 and 10 multiplication tables.</p>	<p>3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.</p>	<p>Use multiplication facts during application of formal written layout.</p> <p>Use division facts during short division and long division.</p>
<p>Automatically recall addition and subtraction facts within 10, and across 10.</p> <p>Unitise in tens: understand that 10 can be thought of as a single unit of 1 ten.</p>	<p>3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example:</p> $80 + 60 = 140$ $140 - 60 = 80$ $30 \times 4 = 120$ $120 \div 4 = 30$	<p>Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100), for example:</p> $8 + 6 = 14 \text{ and } 14 - 6 = 8$ <p>so</p> $800 + 600 = 1,400$ $1,400 - 600 = 800$ $3 \times 4 = 12 \text{ and } 12 \div 4 = 3$ <p>so</p> $300 \times 4 = 1,200$ $1,200 \div 4 = 300$

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<p>Automatically recall number bonds to 9 and to 10.</p> <p>Know that 10 ones are equivalent to 1 ten, and 10 tens are equivalent to 1 hundred.</p>	<p>3AS-1 Calculate complements to 100, for example:</p> $46 + ? = 100$	<p>Calculate complements to other numbers, particularly powers of 10.</p> <p>Calculate how much change is due when paying for an item.</p>
<p>Automatically recall addition and subtraction facts within 10 and across 10.</p> <p>Recognise the place value of each digit in two- and three-digit numbers.</p> <p>Know that 10 ones are equivalent to 1 ten, and 10 tens are equivalent to 1 hundred.</p>	<p>3AS-2 Add and subtract up to three-digit numbers using columnar methods.</p>	<p>Add and subtract other numbers, including four-digits and above, and decimals, using columnar methods.</p>
<p>Have experience with the commutative property of addition, for example, have recognised that $3 + 2$ and $2 + 3$ have the same sum.</p> <p>Be able to write an equation in different ways, for example,</p> $2 + 3 = 5 \text{ and } 5 = 2 + 3$ <p>Write equations to represent addition and subtraction contexts.</p>	<p>3AS-3 Manipulate the additive relationship:</p> <p>Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure.</p> <p>Understand and use the commutative property of addition, and understand the related property for subtraction.</p>	<p>All future additive reasoning.</p>
<p>Recognise repeated addition contexts and represent them with multiplication equations.</p> <p>Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).</p>	<p>3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.</p>	

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	<p>3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.</p>	<p>Use unit fractions as the basis to understand non-unit fractions, improper fractions and mixed numbers, for example:</p> <p>$\frac{2}{5}$ is 2 one-fifths</p> <p>$\frac{6}{5}$ is 6 one-fifths, so $\frac{6}{5} = 1\frac{1}{5}$</p>
	<p>3F-2 Find unit fractions of quantities using known division facts (multiplication tables fluency).</p>	<p>Apply knowledge of unit fractions to non-unit fractions.</p>
<p>Reason about the location of whole numbers in the linear number system.</p>	<p>3F-3 Reason about the location of any fraction within 1 in the linear number system.</p>	<p>Compare and order fractions.</p>
<p>Automatically recall addition and subtraction facts within 10.</p> <p>Unitise in tens: understand that 10 can be thought of as a single unit of 1 ten, and that these units can be added and subtracted.</p>	<p>3F-4 Add and subtract fractions with the same denominator, within 1.</p>	<p>Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.</p>
<p>Recognise standard and non-standard examples of 2D shapes presented in different orientations.</p> <p>Identify similar shapes.</p>	<p>3G-1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.</p>	<p>Compare angles.</p> <p>Estimate and measure angles in degrees.</p>
<p>Compose 2D shapes from smaller shapes to match an exemplar, rotating and turning over shapes to place them in specific orientations.</p>	<p>3G-2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.</p>	<p>Find the area or volume of a compound shape by decomposing into constituent shapes.</p> <p>Find the perimeter of regular and irregular polygons.</p>