



Mathematics Calculation Policy

Date reviewed/Updated: February 2026

Next review: February 2027

Every Child, Every Chance, Every Day; Working Together

Representations used in the teaching of maths are used to support all pupils to 'see' the maths. Representations are not there for children to 'do' the maths. These representations become a mental image that students can use to think about mathematics, supporting them to achieve a deep understanding of mathematical structures and connections.

When planning, we need to think about which representations we choose to use and why.

Addition and subtraction		
Skill	Year	Representations and models
Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. (ELG)	Rec	Everyday objects Counters Ten frames
Add /subtract two 1-digit numbers within 10	1	Part-whole model Ten frames (within 10) Number tracks Number lines (labelled) Counting physical objects
Add /subtract 1 and 2-digit numbers within 20	1/2	Part-whole model Bar models Ten frames (within 20) Number tracks Number lines (labelled) Base 10 (to introduce representation) Cubes/ straws (unitising)
Add three 1-digit numbers	2	Part-whole model Tens frame (within 20) Bar model
Add/ subtract 1 and 2-digit numbers within 100	2/3	Part-whole model Bar model Number lines (labelled) Number lines (blank) Hundred squares Cubes/ straws (unitising)
Add/ subtract two 2-digit numbers to 100	2/3	Part-whole Bar models Number lines (blank) Base 10 Straws/ cubes (unitising) Place value counters Column addition/ subtraction (no regrouping)
Add/ subtract with up to 3-digits	3	Part-whole Bar models Base 10 Place value counters Column addition/ subtraction
Add/ subtract with up to 4-digits	4	Part-whole Bar models Base 10* Place value counters Column addition/ subtraction

Add/ subtract with more than 4 digits	5/6	Part-whole Bar models Place value counters Column addition/ subtraction
Add/subtract with up to 3 decimal places	5/6	Part-whole Bar models Place value counters Column addition/ subtraction

**After year 4, base 10 is not used as a method, it is used to support understanding of concepts and scaffold learning and use of new method*

Multiplication		
Skill	Year	Representations and models
Solve one-step problems with multiplication	1	Ten frames (grouping) Arrays Grouping real-life objects/ counters
<i>Before this point, multiplication is introduced as groups/lots of. After this point, the use of multiplication symbol is expected.</i>		
Solve one-step problems with multiplication	2	Arrays Number lines (skip counting) Bar model
Multiply 2-digit by 1-digit numbers	3/4	Place value counters Base 10 Short written method Expanded written method
Multiply 3-digit by 1-digit numbers	4	Place value counters Base 10 Short written method
Multiply 4-digit by 1-digit numbers	5	Place value counters Short written method
Multiply 2-digit by 2-digit numbers	5	Place value counters Base 10 Long written method Grid method (<i>only as a backup method for children who cannot use the formal written method</i>)
Multiply 3-digit by 2-digit numbers	5	Place value counters Long written method Grid method (<i>only as a backup method for children who cannot use the formal written method</i>)
Multiply 4-digit by 2-digit numbers	5/6	Formal long written method

Division		
Skill	Year	Representations and models
Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. (ELG)	Rec	Everyday objects Counters Ten frames
Solve 1-step problems using multiplication (sharing)	1/2	Ten frames (grouping) Grouping real-life objects/ counters Arrays Bar models <i>*Division symbol introduced in year 2</i>
Solve 1-step problems using multiplication (grouping)	1/2	Ten frames (grouping) Grouping real-life objects/ counters Arrays Bar model Number lines <i>*Division symbol introduced in year 2</i>
Divide 2-digits by 1-digit (no exchange sharing)	3	Base 10 Bar model Place value counters Part-whole model Written short division
Divide 2-digits by 1-digit (sharing with exchange)	3/4	Base 10 Bar model Place value counters Part-whole model Written short division
Divide 2-digits by 1-digit (sharing with remainders)	3/4	Base 10 Bar model Place value counters Part-whole model Written short division
Divide 2-digits by 1 digit (grouping)	5	Place value counters Counters Place value grid Written short division
Divide 3-digits by 1-digit (sharing with exchange)	4	Base 10 Bar model Place value counters Part-whole model Written short division
Divide 3-digits by 1-digit (grouping)	5	Place value counters Counters Place value grid Written short division
Divide 4-digits by 1-digit (grouping)	5	Place value counters Counters Place value grid Written short division
Divide multi-digits by 2-digits (short division)	6	Written short division (<i>used as a backup method for children who cannot use the formal written method for long division</i>) List of multiples

Divide multi-digits by 2-digits (long division)	6	Written long division List of multiples
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Times tables		
Skill	Year	Representations and models
They make connections between arrays, number patterns, and counting in 2s, 5s and 10s. (non-statutory)	1	Number lines Base 10 Everyday objects Counters Hundred squares <i>*Representations and models are used to support understanding and emerging skills, not introduced as methods to solve problems.</i>
Recall and use multiplication and division facts for the 2-times table	2	Bar model Counters Money Ten frames Number lines Everyday objects
Recall and use multiplication and division facts for the 5-times table	2	Bar model Counters Money Ten frames Number lines Everyday objects
Recall and use multiplication and division facts for the 10-times table	2	Hundred squares Counters Money Ten frames Number lines Base 10
Recall and use multiplication and division facts for the 3-times table	3	Hundred squares Counters Number lines Everyday objects
Recall and use multiplication and division facts for the 4-times table	3	Hundred squares Counters Number lines Everyday objects
Recall and use multiplication and division facts for the 8-times table	3	Hundred squares Number tracks Everyday objects
Recall and use multiplication and division facts for the 6-times table	4	Hundred squares Number lines Everyday objects
Recall and use multiplication and division facts for the 7-times table	4	Hundred squares Number lines

Recall and use multiplication and division	4	Hundred squares
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facts for the 9-times table		Number lines
Recall and use multiplication and division facts for the 11-times table	4	Hundred squares Number lines Place value counters Base 10
Recall and use multiplication and division facts for the 12-times table	4	Hundred squares Number lines Place value counters Base 10