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| Year 6ES | End of year expectations for mental calculations | End of year expectations for written methods and problem solving | Written strategies/ recordings/methods/images | Vocabulary& Links |
| * Perform mental calculations, including with mixed operations and large numbers (more complex calculations)
* Children use representation of choice
* Consolidate partitioning and re‐partitioning
* Use compensation for adding too much/little and adjusting
* Refer back to pictorial and physical representations when needed.

**Common mental calculation strategies:**Partitioning and recombiningDoubles and near doublesUse number pairs to 10 and 100Adding near multiples of ten and adjustingUsing patterns of similar calculationsUsing known number factsBridging though ten, hundred, tenthComplementary addition | * Add larger numbers using the formal written (column) method
* Add three digit numbers using columnar method and then move onto 4 digits
* Include decimal addition for money
* Add fractions with different denominators and mixed numbers, using the concept of equivalent fractions
* Start with fractions where the denominator of one fraction is a multiple of the other (e.g. 1/2 + 1/8 = 5/8)
* Progress to varied and increasingly complex problems
* Practise calculations with simple fractions and decimal equivalents to aid fluency
 | Partition and recombine 1  £ 56.25 + £ 10.48 £ 66.73 1  5 625 m + 1 048m 6 673m | * Use knowledge of the order of operations to carry out calculations involving the four operations (BIDMAS)
* Solve problems involving all four operations
* Algebra: use symbols and letters to represent variable and unknowns

(e.g. a + b = b + a)* Solve problems involving the calculation and conversions of units of measure, using decimal

notation of up to three decimal places where appropriate* Use the number line, pupils use, add and subtract positive and negative integers for measures such as temperature
* Calculate and interpret the mean as an average
* Interpret and construct pie charts and line graphs and use these to solve problems
* Find missing angles, and express geometry relationships algebraically (e.g. d=2xr)
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