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| Year 4ES | End of year expectations for mental calculations | End of year expectations for written methods and problem solving | Written strategies/ recordings/methods/images | Vocabulary& Links |
| * Practise mental methods with increasingly large numbers
* Consolidate partitioning and re‐partitioning
* Use compensation for adding too much/little and adjusting
* Use straws, Dienes, place value counters, empty number lines, place value mats, Numicon etc.

**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, hundredComplementary addition | * **Add numbers with up to four digits, using the formal written (column) method**
* Using column method and then move onto 4 digits
* Include decimal addition for money
* Addition of fractions with the same denominator to become **fluent** through a variety of increasingly

complex problems beyond one whole* Counting using simple fractions and decimals, both forwards and backwards
* Add three digit numbers
 | 55 + 37 = 55 + 30 + 7= 85 + 7= 92I know that 42+97= 42+100-3 1  5 625 + 1 048 6 673 139 14242 | * Estimate and use inverse operations to check answers
* Solve addition and subtraction two step problems in context, deciding which operations and methods to use and why
* Identify, represent and estimate numbers using different representations
* Recognise the place value of each digit in a four‐digit number
* Estimate, compare and calculate different measures, including amounts money in £ and p (including
* fractions and decimals)
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