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| Year 3ES | End of year expectations for mental calculations | End of year expectations for written methods and problem solving | Written strategies/ recordings/methods/images | Vocabulary&Links |
| * Add numbers mentally, including:

• a 3-digit number and ones• a 3-digit number and tens• a 3- number and hundreds* Partition all numbers and recombine, starting with

 TU + TU then  HTU + TU* Use straws, Dienes, place value counters, empty number lines, place value mats, Numicon etc

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| **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 three digits, using formal written (column) methods
* Add to three digit numbers using physical and abstract representations (e.g. Dienes, place value counters, empty number lines, place value mats, etc)
* Addition of fractions with the same denominator within one whole*.*
 |  10 1  | * Pupils should estimate the answers to a calculation & use inverse operations to check answers.
* Add amounts of money using both £ and p in practical contexts.
* Measure, compare and add lengths (m/cm/mm), mass (kg/g) & volume/capacity (l/ml)
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