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| Year 3ES | End of year expectations for mental calculation | End of year expectations for written methods and problem solving | Written strategies/ recordings/methods/images | Vocabulary& Links |
| * Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables (and 2, 5 and 10 multiplication tables from Y2)
* Use doubling to connect 2, 4 and 8 multiplication tables

W* Develop efficient mental methods using commutativity and associativity
* Derive related multiplication and division facts
* Calculate mathematical statements for multiplication using the multiplication tables that they know,

including for 2 - digit numbers times 1 - digit numbers, using mental methods* Partitioning: multiply the tens first and then multiply the units,

e.g. 57 x 6 = (50 x 6) + (7 x 6) = 300 + 42 = 342* Children can apply these skills to solve spoken word problems too,
* Include missing number statements e.g
 | * Write and calculate mathematical statements for multiplication using the multiplication tables that they

know, including for 2 - digit numbers times 1 - digit numbers, progressing to formal written methods* Estimate before calculating
* Ensure written methods build on/relate to mental methods

FRACTIONSrecognise and show, using diagrams, equivalent fractions with small denominators |   | * Solve problems, including missing number problems, involving multiplication , including positive integer scaling

 problems and  correspondence  problems in which  n objects are  connected to m  objects.* *The comparison of measures includes simple scaling by integers (for example, a given quantity or measure is twice as long or five times as high)*
* *Pupils now use multiples of 2, 3, 4, 5, 8, 10, 50 and 100.*
* Pupils understand and use simple scales (for example, 2, 5, 10 units per cm) in pictograms and bar charts with increasing accuracy
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