**Pinders Primary School – Mathematics Mental Strategies – Year 4**

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| **Rapid Recall Skills** | **Key Knowledge and Vocabulary** |
| * All multiplication and division facts up to 12 x 12 * Add/subtract multiples of 10 beyond 100 e.g. 50 + 60 = 110 * Add/subtract multiples of 100 up to 1000 * Half of any even number to 100 * Multiply and divide 2 or 3 digit numbers by ten | **Know how to count on or back in tenths and/or hundredths**   * Know how to adapt a number line to work with decimal numbers.        * Know how to solve calculations by counting on in tenths.   e.g. 3.2 + 0.6    3.2 + 0.6 = 3.8   * Know how to solve calculations by counting on in tenths and hundredths.   e.g. 1.7 + 0.55    **Adjusting multiples of 10 or 100 to solve calculations**   * Know how to adjust numbers by rounding to multiples of 10 or 100.   e.g. 138 + 69= 138 + 70 – 1 e.g. 299 – 48 = 300 – 48 – 1     * Know how to adjust 3-digit numbers to make multiples of 10.   e.g. 128 + 32 = 130 + 30    **Partitioning – Calculations with decimal numbers**   * Know how to partition numbers with decimal places with or without crossing place value boundaries   e.g. 3.2 + 2.1 = 5.3 e.g. 3.7 + 6.8 |
|  | **Near Doubles**   * Know how to use near doubles to numbers up to 100.     e.g. 75 + 76 is double 76 and subtract 1 or double 75 and add 1.  **Doubling and Halving**   * Know how to find the double and half of any number up to 1,000 by partitioning.   e.g. half of 3642 e.g. double 574 |