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| Year 5  ES | End of year expectations for mental calculation | End of year expectations for written methods and problem solving | Written strategies/ recordings/methods/images | Vocabulary  &  Links |
| Pupils should be taught to:   * Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. * Multiply and divide numbers mentally drawing upon known facts. * Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.   Pupils should be able to:   * Apply all the multiplication tables and related division facts frequently and use them confidently. | Pupils will:   * Practise and extend their use of the formal written methods of short multiplication and short division. * Divide numbers up to 4 digits by a 1- digit number using the formal written method of short division and interpret remainders appropriately for the   context.   * Interpret non-integer answers to division by expressing results in different ways according to the context, including with remainders, as fractions, as decimals or by rounding.   FRACTIONS   * Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number. * Pupils connect equivalent fractions > 1 that simplify to integers with division and other fractions > 1 to division with remainders. * Pupils connect multiplication by a fraction to using fractions as operators (fractions of), and to division. * Pupils should make connections between percentages, fractions and decimals | Understanding remainders | * Pupils use all four operations in problems involving time and money, including conversions. * Use decimal notation, including scaling. * Calculate and compare the area of rectangles (including squares) (MEASURES) * Establish whether a number up to 100 is prime and recall prime numbers up to 19 * Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) * Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes and including scaling by simple fractions and problems involving simple rates. * Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. (NUMBER—MULTIPLICATION AND DIVISION) |