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| **Steps 4-6** | **Teacher led activities, Multisensory activities, Games****Numerical patterns** **Doubling****Halving and sharing****Odds and evens** |
| **Y1** |

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| **Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.**  |

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| **Y2** | **Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers** **Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the (×), (÷) and (=) signs** **Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.** **Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, multiplication and division facts, and problems in contexts.**  |
| **Y3** | **Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables** **Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.** **Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.**  |
| **Y4** | **Recall multiplication and division facts for multiplication tables up to 12 × 12** **Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers** **Recognise and use factor pairs and commutativity in mental calculations** **Multiply two-digit and three-digit numbers by a one-digit number using formal written layout** **Solve problems involving multiplying and adding, including using the distributive law** **Multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.**  |
| **Y5** | **Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers** **Know and use the vocabulary of prime numbers, prime factors and composite (non- prime) numbers** **Establish whether a number up to 100 is prime and recall prime numbers up to 19** **Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers** **Multiply and divide numbers mentally drawing upon known facts** **Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context** **Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000** **Recognise and use square numbers and cube numbers, and the notation (2) and (3)** **Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes** **Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.** **Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.**  |
| **Y6** | **Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal** **written method of long multiplication** **Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.** **Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.** **Perform mental calculations, including with mixed operations and large numbers** **Identify common factors, common multiples and prime numbers** **Use their knowledge of the order of operations to carry out calculations involving the** **four operations** **Solve problems involving addition, subtraction, multiplication and division** **Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy**  |