Year 3 Maths

Number and Place Value

 count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number
 recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
 compare and order numbers up to 1000
 identify, represent and estimate numbers using different representations
 read and write numbers up to 1000 in numerals and in words
 solve number problems and practical problems involving these ideas.

Addition and Subtraction

 add and subtract numbers mentally, including:
    - a three-digit number and ones
    - a three-digit number and tens
    - a three-digit number and hundreds
 add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
 estimate the answer to a calculation and use inverse operations to check answers
 solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Multiplication and Division

 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.

Year 4 Maths

Number and Place Value

 count in multiples of 6, 7, 9, 25 and 1000
 find 1000 more or less than a given number
 count backwards through zero to include negative numbers
 recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
 order and compare numbers beyond 1000
 identify, represent and estimate numbers using different representations
 round any number to the nearest 10, 100 or 1000
 solve number and practical problems that involve all of the above and with increasingly large positive numbers
 read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

Addition and Subtraction

 add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
 estimate and use inverse operations to check answers to a calculation
 solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

Multiplication and Division

 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 to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

Year 5 Maths

Number and Place Value

 read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
 count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
 interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
 round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000
 solve number problems and practical problems that involve all of the above
 read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Addition and Subtraction

 add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
 add and subtract numbers mentally with increasingly large numbers
 use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
 solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Multiplication and Division

 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

Year 6 Maths

Number and Place Value

 read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
 round any whole number to a required degree of accuracy
 use negative numbers in context, and calculate intervals across zero
 solve number and practical problems that involve all of the above.

Addition, Subtraction, Multiplication and Division

 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 addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why