

## Number and Place Value

Read, write, order and compare numbers up to 10,000,000  
determine the value of each digit

Round any whole number to a required degree of accuracy

Use negative numbers in context e.g. temperature, and calculate intervals across 0

Solve number and practical problems that involve all of the above



## Fractions (including decimals and percentages)

Use common factors to simplify fractions; use common multiples to express fractions in the same denomination

Compare and order fractions, including fractions  $>1$

Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions

Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example,  $1/4 \times 1/2 = 1/8$ ]

Divide proper fractions by whole numbers [for example,  $1/3 \div 2 = 1/6$ ]

Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example,  $3/8$ ]

Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places

Multiply one-digit numbers with up to 2 decimal places by whole numbers

Use written division methods in cases where the answer has up to 2 decimal places

Solve problems which require answers to be rounded to specified degrees of accuracy

Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts



## Calculation

### 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 knowledge of the order of operations to carry out calculations involving the 4 operations

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

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



## Ratio and Proportion

Solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts

Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison

Solve problems involving similar shapes where the scale factor is known or can be found

Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

**Year 6**

**End of year expectations**

