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| --- |
| **Number: Place Value** |
| **Counting*** count backwards through zero to include negative numbers
* count in multiples of 6, 7, 9, 25 and 1000
* find 1000 more or less than a given number

**Comparing Numbers*** order and compare numbers beyond 1000
* *compare numbers with the same number of decimal places up to two decimals places – (copied from fractions)*

**Identifying, representing and estimating numbers*** identify, represent and estimate numbers using different representations

**Reading and Writing Numbers (including Roman Numerals)*** 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.

**Understanding Place Value*** recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
* *find the effect of dividing one or two-digit number by 10 and 100 identifying the value of the digits in the answer as units, tenths and hundredths – (copied from fractions)*

**Rounding*** round any number to the nearest 10, 100 or 1000
* *round decimals with one decimal place to the nearest whole number – (copied from Fractions)*

**Problem Solving*** solve number and practical problems that involve all of the above and with increasingly large positive numbers
 |
| **Number: Addition and Subtraction** |
| **Written Methods*** add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate

**Inverse Operations, Estimating and Checking Answers*** estimate and use inverse operations to check answers to a calculation

**Problem Solving*** solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
 |
| **Number: Multiplication and Division** |
| **Multiplication and Division Facts** * *count in multiples of 6, 7, 9, 25 and 1000 – (copied from Number and Place Value)*
* recall multiplication and division facts for multiplication tables up to 12 × 12

**Mental Calculation** * 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

**Written Calculation*** multiply two-digit and three-digit numbers by a one-digit number using formal written layout

**Properties of numbers: Multiples. Fatprs, Primes, Square and Cube Numbers*** recognise and use factor pairs and commutativity in mental calculations

**Inverse Operations, Estimating and Checking Answers** * *estimate and use inverse operations to check answers to a calculation – (copied from Addition and Subtraction)*

**Problem Solving*** 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.
 |
| **Number - Fractions** |
| **Counting in fractional steps*** count up and down in hundredths

**Recognising Fractions*** recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.

**Comparing Decimals** * compare numbers with the same number of decimal places up to two decimal places

**Rounding Including Decimals** * round decimals with one decimal place to the nearest whole number

**Equivalence (Including Fractions, Decimals and Percentages)*** recognise and show, using diagrams, families of common equivalent fractions
* recognise and write decimal equivalents of any number of tenths or hundredths
* recognise and write decimal equivalents to ¼, ½, ¾

**Addition and Subtraction of Fractions*** add and subtract fractions with the same denominator

**Multiplication and Division of Decimals*** find the effect of dividing a one- or two-digit number by 10 and 100, identifying the  value of the digits in the answer as ones, tenths and hundredths

**Problem Solving*** solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
* solve simple measure and money problems involving fractions and decimals to two decimal places.
 |
| **Algebra** |
| **Formulae*** Perimeter can be expressed algebraically as 2(a+b) where a and b are dimensions in the same unit – (linked with measurement - NSG)
 |
| **Measurement** |
| **Comparing and Estimating** * estimate, compare and calculate different measures, including money in pounds and pence

**Measuring and Calculating*** estimate, compare and calculate different measures, including money in pounds and pence
* measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
* find the area of rectilinear shapes by counting squares

**Telling the time*** read, write and convert time between analogue and digital 12- and 24-hour clocks
* solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

**Converting*** convert between different units of measure [for example, kilometre to metre; hour to minute]
* read, write and convert time between analogue and digital 12- and 24-hour clocks
 |
| **Geometry: Properties of Shapes** |
| **Identifying shapes and their properties** * identify lines of symmetry in 2-D shapes presented in different orientations

**Drawing and Contructing*** complete a simple symmetric figure with respect to a specific line of symmetry.

**Comparing and classifying*** compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes

**Angles*** identify acute and obtuse angles and compare and order angles up to two right angles by size
 |
| **Geometry: Position and Direction** |
| **Position, direction and movement*** describe positions on a 2-D grid as coordinates in the first quadrant
* describe movements between positions as translations of a given unit to the left/right and up/down
* plot specified points and draw sides to complete a given polygon.
 |
| **Statistics** |
| **Interpreting, constructing and presenting data*** interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.

**Solving Problems*** solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
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