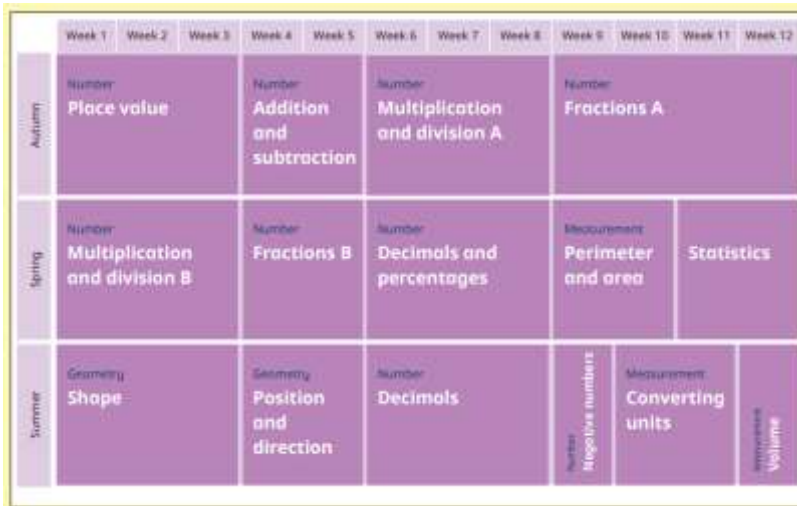
Year 5- Long Term Planning Overview – (2023 update)



Year 5-Recall Facts

- Count forward or backwards in steps of powers of 10 for any given number up to 1,000,000 (Y5 counting)
- I know decimal number bonds to 1 and to 10 (1 dp) (eg 0.4 and 0.6 = 1 1.2 and 8.8 = 10
- Read and Write numbers to at least 1 000 000
- Roman numerals up to 1000 (Y5 Read and write numbers)
- All multiplication facts up to 12 x 12 (Y4 consolidation) Extension: including relating this to multiples of 10 and 100 eg 40 x 30 = 120
- I can identify prime and composite numbers up to 20
- Identify multiples and factors including factor pairs of a number (Factor pairs- 8, 12, 24, 25, 16, 32, 4 (Y5 Prime numbers and factors)
- Read, write and convert between analogue and digital 12 ad 24 hour clocks. (Y4 time continuation)
- Recall decimal equivalents of fractions including 1/4, 1/2, 3/4, 1/3, 1/5 tenths, hundredths (Consolidation from Y4 fractions equivalence)
- Read and write decimal numbers as fractions 0.71= 71/100 (Y5 place value and rounding)
- Write percentages as a fraction with denominator 100, and as a decimal (Y5 equivalence)
- Halves and doubles up to 50
- Change from £5
- CONVERSIONS 1 km= 1000m 1m = 100cm 1 cm = 10 mm 1 kg = 1000g 1 L—1000ml (Y5 estimate measure, weigh compare and convert units)

Number- Place Value	Number- Addition and Subtraction	Number- Multiplication and Division
• **Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 *** • **Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit *** • Read, write, order and compare numbers with up to 3 decimal places • Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • Count forwards or backwards in steps of 10 from any given number up to 1,000,000 • Round decimals with two decimal places to the nearest whole number and to one decimal place • Multiply/divide whole numbers and decimals by 10, 100 and 1000 • Interpret negative numbers in context, count on and back with positive and negative whole numbers, including through zero	• Add and subtract numbers mentally with increasingly large numbers Add and subtract whole numbers with more than 4 digits including using formal written methods (columnar addition and subtraction) • 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	• **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 • Recognise and use square (^{2}) and cube (^{3}) numbers, and notation • Multiply and divide numbers mentally drawing upon known facts • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • 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

- **Read Roman numerals to 1000 (M); recognise years written as such ***

Solve number and practical problems that involve all of the above

- 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
- 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

Number - Fractions

- Recognise mixed numbers and improper fractions and convert from one form to the other
- **Read and write decimal numbers as fractions (e.g. 0.71 = $\frac{71}{100}$) ***
- Compare and order fractions whose denominators are all multiples of the same number *(including on a number line)*
- **Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths***
- Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- Add and subtract fractions with denominators that are the same and that are multiples of the same number *(using diagrams)*
- Write statements > 1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$)
- Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- **Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal***

Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and fractions with a denominator of a multiple of 10 or 25

Geometry-Properties of Shape

- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles
- Use the properties of rectangles to deduce related facts and find missing lengths and angles
- Identify 3-D shapes from 2-D representations
- Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
- Draw given angles, and measure them in degrees (°)
- Identify:
  - angles at a point and one whole turn (total 360°)

  - angles at a point on a straight line and half a turn (total 180°)
  - other multiples of 90°

Geometry- Position and Direction

Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed

Statistics

- Complete, read and interpret information in tables and timetables
- Solve comparison, sum and difference problems using information presented in *all types of graph including* a line graph

Measurement

- Estimate *(and calculate)* volume ((e.g., using 1 cm^3 blocks to build cuboids (including cubes)) and capacity (e.g. using water)
- **Convert between different units of metric measure ***
- Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- Measure/calculate the perimeter of composite rectilinear shapes
- Calculate and compare the area of rectangle, use standard units square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes
- ***Continue to read, write and convert time between analogue and digital 12 and 24-hour clocks ****
- Solve problems involving converting between units of time

Use all four operations to solve problems involving measure using decimal notation, including scaling

- *Change from £10 **