Maths LTP – Year 5

Key place value objectives: (Focus for starter activities/ basic skills sessions. Objectives should underpin all mathematical skills.)

- 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
- Find 10 or 100 more or less than a given number.
- Solve number problems and practical problems involving these ideas.
- Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
- Read, write, order and compare numbers with up to three decimal places

Autumn	Spring	Summer
Wk1 – Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 Find 10 or 100 more or less than a given number. Add and subtract numbers mentally with increasingly large numbers **Wk2**- 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. Read, write, order and compare numbers with up to three decimal places **Wk3-** Solve number problems and practical problems involving these ideas. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	**Wk1**- 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 **Wk2**- 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 **Wk3**- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre **Wk4**- Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.	**WK1-** Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 11/5] **Wk2-** Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams **Wk3-** Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. **Wk4-** 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 **WK5-** Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5,

Maths LTP – Year 5

Wk4-Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) **Wk5**-Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy **Wk6-** Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. **Wk7-** Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	**Wk5**- Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign **Wk6-** Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25.

Maths LTP – Year 5

WK1- Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
Use the properties of rectangles to deduce related facts and find missing lengths and angles

Wk2- Solve comparison, sum and difference problems using information presented in a line graph

Wk3- 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

Wk4 - Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)
Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes**.**

Wk5- Multiply and divide numbers mentally drawing upon known facts

Wk6- Solve problems involving converting between units of time.
Complete, read and interpret information in tables, including timetables.

Wk1- Compare and order fractions whose denominators are all multiples of the same number

Wk2- Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths

Wk3- Add and subtract fractions with the same denominator and denominators that are multiples of the same number

Wk4- Read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]
Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents

Wk5- Round decimals with two decimal places to the nearest whole number and to one decimal place
Solve problems involving number up to three decimal places.

WK1- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
Identify 3-D shapes, including cubes and other cuboids, from 2-D representations

Wk2- Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language with only small inaccuracies in positioning.

WK3- Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes

WK4- Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]

WK5- 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   a turn (total 180°)
~ other multiples of 90°