Mathematics – Progression Map

Counting

Calculating

Visualising

Estimating

Communicating

Reasoning

Problem Solving

Thinking Mathematically
Daily Routines:

Number and Place Value

- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- given a number, identify one more and one less
- identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- read and write numbers from 1 to 20 in numerals and words.

Addition and Subtraction

- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ☐ – 9.

Geometry (properties of shapes)

- recognise and name common 2-D and 3-D shapes, including:
- 2-D shapes [for example, rectangles (including squares), circles and triangles]
- 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].

Measures

compare, describe and solve practical problems for:

- lengths and heights [for example, long/short, longer/shorter, tall/short, double/ha
- mass/weight [for example, heavy/light, heavier than, lighter than]
- capacity and volume [for example, full/empty, more than, less than, half, half full quarter]
- time [for example, quicker, slower, earlier, later]

- sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- recognise and use language relating to dates, including days of the week, weeks months and years

Half Term

Counting

Calculating

Visualising

Thinking Mathematically
Daily Routines:

Multiplication and Division

- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

Fractions

- recognise, find and name a half as one of two equal parts of an object, shape or quantity
- recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

Non-Statutory Guidance

Number and Place Value	Pupils practise counting (1, 2, 3…), ordering (for ex indicate a quantity (for example, 3 apples, 2 centim concrete problems, until they are fluent. Pupils begin to recognise place value in numbers b counting and comparing numbers up to 100, suppo representations. They practise counting as reciting numbers and cou counting in twos, fives and tens from different multi patterns in the number system (for example, odd a and frequent practice through increasingly complex They recognise and create repeating patterns with
Addition and Subtraction	Pupils memorise and reason with number bonds to example, 9 + 7 = 16; 16 – 7 = 9; 7 = 16 – 9). They subtracting zero. This establishes addition and sub Pupils combine and increase numbers, counting fo They discuss and solve problems in familiar practic quantities. Problems should include the terms: put away, distance between, difference between, more develop the concept of addition and subtraction an flexibly.
Multiplication and Division	Through grouping and sharing small quantities, p and division; doubling numbers and quantities; a numbers and quantities. They make connections between arrays, numbe and tens.
Fractions	Pupils are taught half and quarter as 'fractions solving problems using shapes, objects and qu recognise and find half a length, quantity, set o and quarters to the equal sharing and grouping well as recognising and combining halves and
Measures	The pairs of terms: mass and weight, volume a this stage. Pupils move from using and comparing differen non-standard units, including discrete (for exam example, liquid) measurement, to using manag In order to become familiar with standard meas such as a ruler, weighing scales and containers