**Greenhaugh Primary School**

**Teaching for Mastery in Maths**

**The Big Ideas: Year 1**

**Number and Place Value:**

* The position a digit is placed in a number determines its value.
* The language used to name numbers does not always expose the place value, for example the word ‘twelve’ does not make it transparent that the value of this number is ten and two. It is important that children develop secure understanding of the value of each digit.
* Place value is based on unitising: treating a group of things as one ‘unit’. In mathematics, units can be any size, for example units of 1, 2, 5 and 10 are used in money. In place value units of 1, 10 and 100 are used.

**Addition and Subtraction:**

* Relating numbers to 5 and 10 helps develop knowledge of the number bonds within 20. For example, given 8 + 7, thinking as 7 as 2 + 5 and adding the 2 to 8 to make 10 and then 5 to total 15.
* Thinking of part part whole relationships is helpful in linking addition and subtraction. For example, where the whole is 6, and 4 and 2 are parts. This means that 4 and 2 together form the whole, which is 6 and 6 subtract 4 leaves 2 and 6 subtract 2 leaves the 4.

**Multiplication and Division:**

* Counting in steps of equal sizes is based on the big idea of ‘unitising’; treating a group of, say, five objects as one unit of 5.
* Working with arrays helps pupils to become aware of the commutative property of multiplication, that is 2 x 5 is equivalent to 5 x 2.

**Fractions:**

* Fractions express a relationship between a whole and equal parts of the whole. Ensure children express this relationship when talking about fractions. For example,’ *if the circle (where the circle is divided into four equal parts with one shaded) is the whole, one part is one quarter of the whole circle.’*
* Halving involves partitioning an object, shape or quantity into two equal parts.
* The two parts need to be equivalent in, for example area, mass or quantity.