**Greenhaugh Primary School**

**Teaching for Mastery in Maths**

**The Big Ideas: Year 3**

**Number and Place Value:**

* The value of a digit is determined by its position in a number.
* Place value is based on unitising, treating a group of things as one ‘unit’. This generalises to 3 units + 2 units = 5 units (where units are the same size).

**Addition and Subtraction:**

* Relating numbers to 5 and 10 helps develop knowledge of the number bonds within 20. For example, given 8+7, thinking of 7 as 2+5 and adding the 2 and 8 to make 10, then the 5 to 15. This should be applied when calculating with larger numbers.
* Subtraction bonds can be thought of in terms of addition; for example, in answering 15-8, thinking what needs to be added to 8 to make 15. Counting on for subtraction is a useful strategy that can be applied to larger numbers.

**Multiplication and Division:**

* It is important that children not just to be able to chant their multiplication tables but also to understand what the facts in them mean, to be able to use these facts to figure out others and to use in problems. It is also important for children to be able to link facts within the tables (e.g. 5x is half of 10x).
* They understand what multiplication means, see division as both grouping and sharing, and see division as the inverse of multiplication.

**Fractions:**

* Fractions are equal parts of a whole.
* Equal parts of shapes do not need to be congruent but need to be equal in area.
* Decimal fractions are linked to other fractions.
* The number line is a useful representation that helps children to think about fractions as numbers.