Number – fractions, decimals, percentages

- Count up and down in tenths, recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10

- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators

- Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators

- Recognise and show, using diagrams, equivalent fractions with small denominators

- Compare and order unit fractions, and fractions with the same denominators

- Add and subtract fractions with the same denominator within one whole, e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$

- Solve problems that involve all of the above

Teaching for Mastery is designed to support a mastery approach to teaching and learning and have been designed to support the aims and objectives of the new National Curriculum.

The overviews:

- Have number at their heart. A large proportion of time is spent reinforcing number to build competency.
- Ensure teachers stay in the required key stages and support the ideal of depth before breadth.
- Ensure students have the opportunity to stay together as they work through the schemes as a whole group.
- Provide plenty of time to build reasoning and problem solving elements into the curriculum.

Concrete – Pictorial – Abstract

As a school we believe that all students, when introduced to a key new concept, should have the opportunity to build competency in this topic by taking this approach.

Concrete – students should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

Pictorial – students should then build on this concrete approach by using pictorial representations. These representations can then be used to reason and solve problems.

Abstract – with the foundations firmly laid, students should be able to move to an abstract approach using numbers and key concepts with confidence.

Maths

Progression in Number

Year 3

If you require any examples, please contact the class teacher.

Number and Place Value

- Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number

- Identify, represent and estimate numbers using different representations

- Read and write numbers up to 1000 in numerals and in words

- Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

- Compare and order numbers up to 1000

- Solve number problems and practical problems

Number – addition and subtraction

- Estimate the answer to a calculation and use inverse operations to check answers

- Add and subtract numbers mentally, including:
  - A 3-digit number and ones
  - A 3-digit number and tens
  - A 3-digit number and hundreds

- Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction

- Solve problems, including missing number problems using number facts, place value and more complex addition and subtraction

Number – multiplication and division

- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables

- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers using mental and progressing to formal written methods

- Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which **n** objects are connected to **m** objects